March 17, 2016

Ms. Janet Macdonald
Inactive Hazardous Sites Branch
Division of Waste Management – REC Program
North Carolina Department of Environmental Quality
217 West Jones Street
Raleigh, North Carolina 27603

Subject: **Proposed Remedial Action Plan for Site Soils**
Robert Bosch Tool Corporation
Former Boone Division
Boone, Watauga County, North Carolina
NONCD0001139
Amec Foster Wheeler Project 6251121001.03.01

Dear Ms. Macdonald:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), formerly AMEC Environment & Infrastructure, Inc., is pleased to submit the subject plan on compact disk (CD). Should you have any questions, please do not hesitate to contact Paul S. Johnstone or Timothy S. Renn at (864) 552-9624.

Sincerely,

Amec Foster Wheeler

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PROPOSED REMEDIAL ACTION PLAN FOR SITE SOILS

ROBERT BOSCH TOOL CORPORATION
FORMER BOONE MANUFACTURING DIVISION
482 STATE FARM ROAD
BOONE, NORTH CAROLINA
NONCD0001139

March 2016

Prepared For:

Robert Bosch Tool Corporation
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March 17, 2015

March 17, 2016

Ms. Janet Macdonald
Registered Environmental Consultant Program
Inactive Hazardous Sites Branch
Superfund Section – Division of Waste Management
North Carolina Department of Environmental Quality
217 West Jones Street
Raleigh, North Carolina 27603

Reference: **Proposed Remedial Action Plan for Site Soils**
Robert Bosch Tool Corporation
Former Boone Manufacturing Division
482 State Farm Road
Boone, Watauga County, North Carolina
Amec Foster Wheeler Project 6251121001.03.01
NONCD0001139

Dear Ms. Macdonald:

On behalf of the Robert Bosch Tool Corporation, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared this Proposed Remedial Action Plan (RAP) for Site Soils for the above-referenced Site. This Proposed RAP presents to the North Carolina Department of Environmental Quality, Division of Waste Management, Superfund Section, Inactive Hazardous Sites Branch the scope of work for site remediation activities associated with the Registered Environmental Consultant program.

If there are any questions or you require any additional information, please do not hesitate to contact Mr. Paul S. Johnstone, LG, RSM at paul.johnstone@amecfw.com (864.552.9624), or Mr. Aromake Afiegbe at Aromake.Afiegbe@us.bosch.com (224.232.2220).

Sincerely,

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TABLE OF CONTENTS

Page
1.0 INTRODUCTION 1-1
1.1 SITE DESCRIPTION 1-1
1.1.1 Site Layout 1-1
1.1.2 Site History 1-1
1.1.3 Site Topography 1-2
1.1.4 Regional Geology and Hydrogeology 1-2
1.1.5 Site-Specific Geology and Hydrogeology 1-3
1.2 SUMMARY OF AOCs AND REMEDIAL INVESTIGATION RESULTS 1-5
1.2.1 Areas of Concern 1-5
1.2.2 Remedial Investigation Activity Summary 1-6
1.2.3 RI and Subsequent Investigation Results Summary by Media 1-10
1.3 DATA VALIDATION 1-17
1.3.1 June and July 2015 1-17
1.3.2 October 2015 1-18
1.3.3 December 2015 1-20
1.4 NATURE AND EXTENT OF CONTAMINATION 1-22
1.5 REMEDIAL ACTION OBJECTIVES 1-23
1.6 REMEDIATION STANDARDS 1-24
1.7 MISCELLANEOUS REC REPORT REQUIREMENTS 1-25
1.7.1 Submission of Proposed RAP 1-25
1.7.2 Imminent Hazard Requirements 1-25
1.7.3 Off-Site Migration, Sensitive Environments, Mixed Wastes 1-25
1.7.4 Proposed RAP Certification 1-25
1.7.5 Remedy Requiring Branch Approval 1-25
1.7.6 Public Notice of Proposed RAP 1-26
1.7.7 Hazardous Waste Removal from Site 1-26
2.0 FEASIBILITY STUDY 2-1
2.1 ESTIMATED AREA AND VOLUME OF IMPACTED SITE SOILS 2-1
2.2 REMEDIAL ACTION TECHNOLOGIES IDENTIFICATION AND SCREENING 2-2
2.3 REMEDIAL ACTION ALTERNATIVES DEVELOPMENT AND EVALUATION 2-3
2.3.1 Alternatives Evaluation Criteria Description 2-3
2.3.2 Alternative S1: Surface Excavation/Subsurface ISCO Injection/SVE 2-5
2.3.3 Alternative S2: Surface ISCO Blending/Subsurface ISCO Injection/SVE 2-7

2.3.4 Alternative S3: Surface and Subsurface ISCO Injection/SVE 2-8
2.3.5 Comparative Analysis and Remedial Alternative Selection 2-10
3.0 PROPOSED REMEDY 3-1
3.1 CONCEPTUAL DESIGN FOR PROPOSED REMEDY 3-1
3.1.1 ISCO Treatment for 1,4-Dioxane and Cyanide 3-1
3.1.2 SVE Treatment for VOCs 3-1
3.2 JUSTIFICATION OF SELECTED REMEDY 3-2
3.3 PROPOSED RAP ACTIVITIES 3-2
3.3.1 Regulatory Requirements and Design and Procurement Activities 3-2
3.3.2 Public Review Comments 3-3
3.3.3 Full Scale Implementation 3-3
3.3.4 Operation and Maintenance 3-4
3.3.5 Active Remediation Transition Events 3-4
3.3.6 SVE Treatment System Decommissioning and Abandonment 3-5
4.0 REMEDY IMPLEMENTATION 4-1
4.1 PROPOSED RAP PROCEDURES AND SCHEDULE 4-1
4.1.1 ISCO Injection 4-1
4.1.2 SVE System Construction 4-1
4.1.3 Operation and Maintenance 4-3
4.1.4 ISCO and SVE System Monitoring and Performance Evaluation 4-4
4.1.5 Progress Reports 4-4
4.2 PROPOSED RAP COMPLETION CRITERIA 4-4
4.3 COMMUNITY HEALTH AND SAFETY PLAN 4-5
4.4 DECONTAMINATION PROCEDURES 4-5
5.0 PROPOSED RAP CERTIFICATION AND COMPLETION STATEMENTS 5-1
5.1 RP AND RSM CERTIFICATION OF RAP 5-1
5.2 PROPOSED RAP COMPLETION STATEMENT 5-1
6.0 SUMMARY AND CONCLUSION OF PROPOSED RAP 6-1
6.1 SUMMARY OF PROPOSED RAP 6-1
6.2 CONCLUSIONS 6-1
7.0 REFERENCES 7-1

LIST OF TABLES

Table	Title
1.1	Summary of Additional Cyanide Soil Delineation Results – July 30-31, 2015
1.2	Summary of Additional Cyanide Soil Delineation Results – December 14-15, 2015
1.3	Summary of Additional Delineation Results for VOCs in Site Soils – 2015
1.4	Summary of Additional Surface Water and Groundwater Analytical Results
2.1	Summary of Total Cyanide Laboratory Analytical Results – Constituent Averaging
2.2	Initial Screening of Remedial Technologies for Site Soils
2.3	Secondary Screening of Remedial Technologies for Site Soils
2.4	Opinion of Probable Cost – Alternative S1
2.5	Opinion of Probable Cost – Alternative S2
2.6	Opinion of Probable Cost – Alternative S3
2.7	Comparative Summary of Remedial Alternatives for Site Soils
3.1	First ISCO Injection Event Details
4.1	Proposed Remedial Action Plan for Site Soils Implementation Schedule
4.2	Soils Remediation Performance Monitoring Schedule

LIST OF FIGURES

Figure	Title
1.1	Site Location Map
1.2	Site Layout Map
1.3	Overburden Aquifer, Water Level Elevation Contour Map – September 2015
1.4	Upper Bedrock Aquifer, Water Level Elevation Contour Map – September 2015
1.5	Area of Concern Location Map
1.6	Soil Boring Locations and Estimated Areal Extent of Soils Impacted with Total Cyanide
1.7	Soil Boring Locations and Estimated Areal Extent of Soils Impacted with VOCs
1.8	Soil Boring Locations and Estimated Areal Extent of Soils Impacted with 1,4-Dioxane
1.9	Surface Water and Sediment Sample Location Map
1.10	Estimated Areal Extent of Soils Impacted with VOCs Above POG PSRGs (0–5 feet bgs)
1.11	Estimated Areal Extent of Soils Impacted with VOCs Above POG PSRGs (5–15 feet bgs)
1.12	Estimated Areal Extent of Soils Impacted with VOCs Above POG PSRGs (15–30 feet bgs)
1.13	Estimated Areal Extent of Soils Impacted with 1,4-Dioxane Above POG PSRG (0–5 feet bgs)
1.14	Estimated Areal Extent of Soils Impacted with 1,4-Dioxane Above POG PSRG (5–15 feet bgs)
1.15	Estimated Areal Extent of Soils Impacted with 1,4-Dioxane Above POG PSRG (15–30 feet bgs)
2.1	Quarter-acre Averaging Sector for Total Cyanide and Sample Locations Requiring Remediation
2.2	Alternative S1: Surface Excavation/Subsurface ISCO Injection/ SVE
2.3	Alternative S2: Surface ISCO Blending/Subsurface ISCO Injection/ SVE
2.4	Alternative S3: Surface and Subsurface ISCO Injection/SVE
3.1	Horizontal SVE Well Profiles

LIST OF APPENDICES

Appendix	Title
A	Document Certification Statements
B	Cross-Section Transects and Associated Geological Cross Sections
C	Background Site Groundwater Information
D	Remedial Investigation Results for Soil, Sediment, and Surface Water
E	Soil Boring Logs, Lab Reports, and Data Validation

LIST OF ACRONYMS

Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
AOC	area of concern
bgs	below ground surface
CN^-	cyanide anion
C&D	concrete and demolition
cis-1,2-DCE	cis-1,2-dichloroethene
CAP	Corrective Action Plan
CoC	constituent of concern
1,1,-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
DPT	direct push technology
EDD	electronic data deliverable
ft^2	square feet
FID	flame ionization detector
GPR	ground-penetrating radar
H_2O_2	hydrogen peroxide
HCN	hydrogen cyanide
HSL	Hazardous Substance List
IDW	investigation-derived waste
IHSB	Inactive Hazardous Sites Branch
ISCO	In Situ Chemical Oxidation
Kh	horizontal hydraulic conductivity
Kv	vertical hydraulic conductivity
kVA	Kilovolt-amps
LCS	laboratory control sample
LRS	Laboratory Resources & Solutions, Inc.
MS/MSD	matrix spike/matrix spike duplicate
MSL	mean sea level
µg/kg	microgram per kilogram
µg/L	microgram per liter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NCDEQ	North Carolina Department of Environmental Quality
NCGS	North Carolina Geological Survey
O&M	operation and maintenance
Pace	Pace Analytical Services, Inc.
PCE	tetrachloroethene (perchloroethylene)
PID	photo-ionization detector
POG	Protection of Groundwater

LIST OF ACRONYMS (Continued)

POTW	Publically Owned Treatment Works
ppm	parts per million
PSRG	Preliminary Soil Remediation Goal
PVC	polyvinyl chloride
PWR	partially weathered rock
RAO	Remedial Action Objective
RAP	Remedial Action Plan
RAPR	Remedial Action Progress Report
RAPCR	Remedial Action Preconstruction Report
QA	quality assurance
QC	quality control
RBTC	Robert Bosch Tool Corporation
REC	Registered Environmental Consultant
RI	Remedial Investigation
RP	Responsible Party
RSL	Regional Screening Level
RSM	Registered Site Manager
S	storativity
SB	soil boring
scfm	standard cubic feet per minute
SDG	sample delivery group
SVE	Soil Vapor Extraction
SIM	Select Ion Monitoring
SM	Standard Method
SPLP	Synthetic Precipitation Leaching Procedure
SVOC	semi volatile organic compound
T	transmissivity
1,1,1-TCA	1,1,1,-trichloroethane
TCE	trichloroethene
UIC	underground injection control
USEPA	United States Environmental Protection Agency
V	Volt
VAC	Vermont American Corporation
VC	vinyl chloride
VISTI/C	Vapor Intrusion Screening Table for Industrial/Commercial
VOC	volatile organic compound
yd^3	cubic yards
2B Standards	North Carolina Surface Water Standards
2L Standards	North Carolina Ground Water Quality Standards

1.0 INTRODUCTION

Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler) has prepared this Proposed Remedial Action Plan (RAP) for Site Soils on behalf of the Robert Bosch Tool Corporation (RBTC) to address impacted soils located at the RBTC, Former Boone Manufacturing Division site (the "Site"). The Site is located at 482 State Farm Road in Boone, Watauga County, North Carolina and is shown on United States Geological Survey, 7.5-minute topographic map, Boone, North Carolina Quadrangle (**Figure 1.1)**. The contents of this document have been prepared in accordance with the requirements outlined in the *Inactive Hazardous Sites Program, Implementation Guidelines for Assessment and Cleanup* of the North Carolina Department of Environmental Quality (NCDEQ), formerly North Carolina Department of Environment and Natural Resources, Division of Waste Management, Superfund Section, Inactive Hazardous Sites Branch (NCDEQ, 2015a). The objective of this Proposed RAP for Site Soils is to identify, evaluate, and compare various remedial alternatives to remediate soils impacted by historical Site activities and operations. Based on this screening and evaluation process, a remedial alternative to address impacted Site soils will be proposed.

RBTC entered into an Administrative Agreement for Registered Environmental Consultant-Directed Assessment and Remedial Action with the NCDEQ, Division of Waste Management, IHSB, Registered Environmental Consultant (REC) program, effective September 25, 2008, pursuant to NCGS 130A-310.9(c) and 15A NCAC 13C .0300. Responsible Party and Registered Site Manager Document Certification Statements for this document are included in **Appendix A**.

1.1 SITE DESCRIPTION

A description of the Site including Site layout, history, topography, geology, and hydrogeology is provided in the following subsections.

1.1.1 Site Layout

The subject Site is situated on a 6.82-acre tract of land located on the south side of a hillside. The latitude and longitude for the Site are North 36º 12' 22.79" and West 81º 39' 49.04". The property is developed with a one-story brick 96,709-square feet (ft^2) former tool manufacturing facility and associated driveways and parking areas. Access to the Site is from two asphalt drives that extend from State Farm Road. The Site is bounded by State Farm Road to the north, by multi-family residential and institutional buildings to the south and east, and undeveloped woodlands to the west. The Site layout is depicted on **Figure 1.2**.

1.1.2 Site History

Vermont American Corporation (VAC) originally constructed the facility in 1964, and it is currently located in a variable land-use urban area containing industrial/commercial property, residential housing, and undeveloped property. No information is available for the status of the Site prior to 1964, but it is assumed that the property was undeveloped. While in operation, the facility primarily manufactured saw blades, lathe turning tools, and cut-off wheels. Tool manufacturing processes included precision machining, degreasing, metal surface preparation, black oxide coating, heat treating, and painting. Chrome plating occurred at the Site from 1965 to 1980. Vapor degreasing was reportedly conducted using 1,1,1-trichlorethane (1,1,1-TCA) and trichloroethene (TCE) as the cleaning solvents in one Detrex solvent vapor degreaser unit.

Hazardous waste generated from the tool manufacturing process was accumulated adjacent to the facility at the southeast corner of the building. The hazardous waste accumulation area was under cover in a fenced area and included a secondary containment berm.

The former tool manufacturing facility was in operation from 1965 until May 1991. The Site was subsequently sold to Blue Sky Development, Inc. after its closure in 1991 with VAC retaining environmental liability for the Site. Currently, the facility is occupied by Blue Skies Storage, which uses it as a transfer and storage warehouse.

VAC was acquired by a joint venture between Robert Bosch Corporation (currently Robert Bosch, LLC) and Emerson Electric in December 1989. Effective January 1, 2003, VAC joined with S-B Power Tool Corporation to become RBTC; therefore, the Site is known as the RBTC, Former Boone Manufacturing Division.

1.1.3 Site Topography

The Site is located approximately 0.8 miles southeast of downtown Boone, North Carolina. Terrain in the Boone area is classified as hilly to mountainous. The Site property sits on an engineered grade at an approximate elevation of 3,295 feet above mean sea level (MSL). It was generally cut from the north along State Farm Road and filled to the south to create a level grade for construction of the facility in 1964. This physiography is reflected in subsurface geology that was observed during soil boring and monitoring well drilling for investigations conducted at the Site.

1.1.4 Regional Geology and Hydrogeology

A description of the regional geology and hydrogeology is presented in the following subsections.

1.1.4.1 Regional Geology

Boone, North Carolina is located within the Blue Ridge Physiographic Province, which is approximately 35 miles wide in northwestern North Carolina and trends southwest to northeast from central Alabama to southeastern Canada. Boone is approximately 12 miles from the northwest boundary of the province. Various types of metamorphic rocks occur in the Blue Ridge Province, and these rocks have experienced major structural (e.g., folding and faulting) and compositional changes associated with the evolution of the Appalachian Mountains. Rocks of the Blue Ridge weather differentially, based on the location of structural features and compositional variation, to produce hilly and mountainous terrain. Saprolite derived from the in situ weathering of the parent bedrock is usually a sandy to clayey silt or silty clay, sometimes containing rock fragments. Between the saprolite and the parent bedrock, a transitional zone of partially weathered rock (PWR) may be found, which exhibits characteristics of both saprolite and the underlying, less weathered bedrock. As indicated by the Geologic Map of North Carolina (North Carolina Geological Survey [NCGS], 1985), the rock type in the area is a biotite granite gneiss that may appear uniform (massive) or finely banded (foliated). Local variations in the rock also include fractures, faulting, and compositional variations. Mineral chemistry of the parent rock may affect metals concentrations found in the saprolite.

The United States Department of Agriculture Soil Survey for Watauga County, North Carolina, depicting conditions as identified in 1999, mapped the developed northern and eastern portions of the Site as Urban land. Urban land consists of areas where more than 85 percent of the surface area is covered with asphalt, concrete, buildings, or other impervious cover. Areas of Urban land have been greatly altered by cutting, filling, grading, and shaping. The original landscape, topography, and commonly the drainage pattern, have been changed. The undeveloped southern and western portion of the property consists primarily of Chestnut-Edneyville sandy loam (30 to 50% slopes). The Chestnut-Edneyville sandy loam is characterized by moderately deep (Chestnut) to very deep (Edneyville), well drained, moderately rapid permeability soils on long and narrow or irregular side slopes in the low or intermediate mountains or intermountain hills. These soils formed from weathering of felsic to mafic, igneous or high-grade metamorphic bedrock. Depth to bedrock in the Chestnut series soils is typically 20 to 40 inches. The depth to bedrock in Edneyville soils is greater than 60 inches. The water table is typically encountered below a depth of six feet in both soils.

1.1.4.2 Regional Hydrogeology

Groundwater in the Blue Ridge Province is often first encountered within saprolite where hydraulic conductivity is relatively low. Beneath the saprolite, the transitional PWR zone typically has a greater hydraulic conductivity due to relict rock texture and variable weathering of the various minerals contained within the parent bedrock. Viable groundwater generally becomes increasingly confined to fractures and other structural features as bedrock competency increases with depth. In many areas of crystalline rock, such as the Blue Ridge Province, hydraulic head decreases with increasing depth (i.e., groundwater within the saprolite tends to flow downward and recharge fractures in the bedrock). However, the high vertical relief present in the Boone area may provide fracture-connected hydraulic pressure that causes upward movement of groundwater into the overlying saprolite.

Groundwater generally flows in directions subparallel to the ground surface slopes and under the influence of gravity toward points of discharge such as creeks, swamps, drainage swales, or pumped groundwater wells. Significant surface drainage features as well as subsurface stratigraphy can affect groundwater conditions. However, the water table (i.e., the surface of the saturated zone) is frequently a subdued replica of the overlying ground surface, and based on this, the direction of groundwater flow beneath the subject Site is interpreted to be generally to the south and southeast. Shallow groundwater will likely discharge to the unnamed tributaries to Boone Creek and Winkler Creek located to the southwest and east of the facility, respectively.

1.1.5 Site-Specific Geology and Hydrogeology

Site-specific geology and hydrogeology are described in the following subsections.

1.1.5.1 Site-Specific Geology

The subject Site is underlain at shallow depths (0 to 30 feet below ground surface [bgs]) by sandy silt fill material that thickens toward the southern and eastern extent of the property. Localized clay lenses were encountered in certain borings within the unconsolidated soil beneath the Site. In general, the clay lenses were encountered between 8 and 19 feet bgs in borings advanced on the southeastern portion of the property in the vicinity of the MW-12 monitoring well

cluster. Clay lenses were encountered between 17.5 to 28 feet bgs in borings advanced further west, in the vicinity of wells MW-2 and MW-8/8D.

The shallow fill layer is underlain by a saprolite and PWR unit with a thickness ranging from approximately 8 feet to greater than 60 feet in the northern and central areas of the Site. Chlorite schist bedrock underlies the PWR and was encountered as shallow as 30 feet bgs during installation of monitoring wells MW-7/MW-7D and as deep as 64 feet bgs during installation of monitoring well MW-5D. The depth to the top of bedrock decreases beneath off-Site properties south of the Site where bedrock was consistently encountered in wells MW-17, MW-17D and MW-18D at approximately 35 feet bgs. Subsurface geology with water level elevations are shown on cross sections A-A' through D-D' that were completed during the 2011 Phase I Remedial Investigation (RI). The locations of the cross-section transects and associated cross sections are included in **Appendix B** of this Proposed RAP for reference.

1.1.5.2 Site-Specific Hydrogeology

A water table (unconfined) aquifer is present beneath the Site. Based on the results of RI activities and groundwater monitoring events conducted to date at the Site, groundwater occurs in the unconfined overburden unit and within fractured bedrock. Monitoring well construction information is summarized in **Table C.1** in **Appendix C**.

Overburden Aquifer Characteristics

The uppermost water-bearing zone at the Site is an unconfined aquifer in overburden material. Groundwater elevations for the water table in the unconfined aquifer ranged from 3208.79 feet above MSL in monitoring well MW-36 to 3254.45 feet above MSL in monitoring well MW-1 on September 21, 2015 (**Table C.2** in **Appendix C**). Based on these data, groundwater flow in the overburden aquifer appears to generally follow Site topography and flow to the south and southeast. A water table elevation contour map for monitoring wells screened in the overburden aquifer is presented as **Figure 1.3**.

The hydraulic characteristics of the overburden or shallow aquifer were evaluated in 1993 by a slug test, a 48-hour aquifer pumping test, and a 70-minute recovery test. Hydraulic values of horizontal hydraulic conductivity (Kh), transmissivity (T), and storativity (S), as taken from a previous Corrective Action Plan (CAP) prepared for the Site by others in 1993, are included in **Table C.3** in **Appendix C**.

On September 21, 2015, the average horizontal gradient of the overburden aquifer was 0.108. Horizontal gradient calculations for the overburden aquifer are included in **Table C.4** in **Appendix C**.

Bedrock Aquifer Characteristics

The second water-bearing zone at the Site is a bedrock aquifer. The groundwater elevations in upper bedrock aquifer monitoring wells ranged from 3183.34 feet above MSL in monitoring well MW-36D to 3241.32 feet above MSL in monitoring well MW-8D on September 21, 2015 (**Table C.2** in **Appendix C**). Groundwater flow in the bedrock aquifer beneath the Site appears to

generally follow Site topography to the south, southeast, and southwest. A water table elevation contour map for the upper bedrock wells is presented as **Figure 1.4**.

The hydraulic characteristics of the upper bedrock aquifer were also evaluated in 1993 by a measurement of deep bedrock well (MW-9D) during shallow aquifer test and borehole packer tests conducted in three locations. The hydraulic characteristics of deep groundwater had varying values for Kh, T and S and are summarized in **Table C.3** in **Appendix C**. Based on the data, the bedrock aquifer response to pumping, and the effects on the unconfined overburden aquifer, the bedrock aquifer can be considered a partially confined aquifer.

On September 21, 2015, the average horizontal gradient in the upper bedrock aquifer was 0.082. Horizontal gradient calculations for the bedrock aquifer are included in **Table C.4** in **Appendix C**.

Vertical Hydraulic Gradients

The vertical gradient at the Site was evaluated using the groundwater elevations from monitoring well pairs screened in the overburden and upper bedrock aquifers. Groundwater elevations were measured in well pairs MW-4/MW-4D, MW-5/MW-5D, MW-10/MW-10D, MW-12D/MW-12DD, MW-12DD/MW-12D3, MW-17/MW-17D, and MW-36/MW-36D. A downward flow gradient was noted for each well pair in September 2015. The average downward vertical gradient was 0.319, which indicated that the Site is predominantly an area of recharge. Vertical gradient calculations are included in **Table C.4** in **Appendix C**.

Vadose Zone Hydraulic Characteristics

The 1993 CAP also included four constant head permeameter tests on the soil at the Site. The tests were conducted to determine the infiltration rate of the soil in the vadose (unsaturated) zone at approximately 4 to 6 feet bgs. The vertical hydraulic conductivity (Kv), or infiltration capacity, of the test locations are presented in **Table C.3** in **Appendix C**.

1.2 SUMMARY OF AOCS AND REMEDIAL INVESTIGATION RESULTS

A description of the areas of concern (AOC) at the Site and RI results are presented in the following subsections.

1.2.1 Areas of Concern

Based on a review of historical information and the results of previous assessment activities, the following AOCs were identified. These AOCs are generally located in the south and southwestern portions of the Site. A map showing the location of the identified Site AOCs is presented on **Figure 1.5**.

<u>Exterior</u>

- AOC-1: Outside the Wastewater Treatment Room, where TCE and tetrachloroethene (perchloroethylene, or PCE) were detected in a soil sample collected during a 1991 Phase II assessment at concentrations that exceeded their IHSB Protection of Groundwater (POG) Preliminary Soil Remediation Goal (PSRG) in effect (February 2011) at the time the RI Work Plan (Amec Foster

Wheeler, 2011a) was prepared, and 1,1-dichloroethane (1,1-DCA) was detected in a soil sample collected during a 1992 Phase III assessment that exceeded its IHSB health-based PSRG and POG PSRG in effect (February 2011) at the time that the RI Work Plan was prepared.

- AOC-2: The reported location of an underground oil/water separator and abandoned No. 2 fuel oil underground storage tank.
- AOC-3: The reported location of a 1,1,1-TCA storage tank. Cyanide was detected in a soil sample collected near this area during the 1991 Phase II assessment at a concentration that exceeded its POG PSRG in effect (February 2011) at the time the RI Work Plan was prepared.
- AOC-4: The hazardous waste storage area where TCE was detected in a soil sample collected near this area during the 1992 Phase III assessment at a concentration that exceeded its POG PSRG in effect (February 2011) at the time the RI Work Plan was prepared.

Interior

- AOC-5: The Paint Storage Room where paint used to coat manufactured products was stored and applied.
- AOC-6: The Black Oxide Room where a chrome-plating process was used as part of facility operations.
- AOC-7: The Wastewater Treatment Room where facility wastewater was treated (including waste from a cyanide process).

Site Wide

- Groundwater: Groundwater samples from a groundwater sampling event conducted in 2007 had concentrations of chlorinated solvents that exceeded the North Carolina Ground Water Quality Standards promulgated in Title 15A, Subchapter 2L, Section .0202 of the North Carolina Administrative Code (2L Standards).

1.2.2 Remedial Investigation Activity Summary

Historical environmental investigations including Phase I, Phase II, and Phase III environmental assessments that were conducted at the Site in the early 1990s are summarized in Section 1.2 of the RI Report (Amec Foster Wheeler, 2011b). Also described in Section 1.2 of the RI Report is corrective action for groundwater that was initiated with the completion of a CAP for groundwater in 1993.

For the Site RI, Amec Foster Wheeler conducted additional assessment activities to further evaluate the aforementioned AOCs. The scope of work for the RI included collecting soil, groundwater, sediment, surface water, and indoor air quality samples. A description of Phase I RI activities and additional RI investigations (Phase II) are presented in the following subsections.

1.2.2.1 Phase I RI Activities (July and August 2011)

The Phase I RI was conducted during July and August 2011 to delineate the vertical and horizontal extent of contamination through the collection and analysis of soil, sediment, surface water, groundwater, and indoor air samples. During this phase, 49 borings were conducted for soil (the soil boring [SB] locations are shown on **Figures 1.6 and 1.7**); eight surface water and sediment samples were collected from the unnamed tributaries to Boone Creek and Winkler Creek; and four new permanent monitoring wells (MW-12D, MW-20, MW-20D, and MW-21) were installed on Site. Groundwater samples were collected from 28 on- and off-Site monitoring wells; monitoring well locations are shown on **Figures 1.3 and 1.4**. Five indoor air samples were also collected. The results of the Phase I RI were summarized in the *Remedial Investigation Report* that was certified under the REC Program on September 23, 2011 (Amec Foster Wheeler, 2011b).

1.2.2.2 Additional RI (Phase II) Activities (February 2012 to December 2013)

The results of the Phase I RI indicated that RI activities were essentially complete, with the following exceptions: 1) vertical delineation was not complete in the southeastern portion of the Site (in the vicinity of monitoring wells MW-12 and MW-12D) and 2) lateral and vertical delineation was not complete at off-Site locations due to a lack of access provided by off-Site property owners. As a result, Phase II RI activities were conducted incrementally between February 2012 and December 2013. During February and March 2012, Amec Foster Wheeler advanced eight additional SBs (SB-50 through SB-57) in the southern and southeastern portion of the Site property, installed seven temporary monitoring wells, installed six permanent overburden monitoring wells (MW-22 through MW-27), installed one deeper bedrock monitoring well (MW-12DD), and collected a second round of indoor air quality samples within the on-Site building. The results of the Phase II RI activities conducted during February and March 2012 were summarized in the *Additional Remedial Investigation and Quarterly Groundwater Monitoring Report – First Quarter 2012* (Amec Foster Wheeler, 2012) that was certified and submitted to the REC Program on November 6, 2012.

The soil samples collected from the eight additional SBs were field screened for organic vapors using a photoionization detector (PID); however, the soil samples were not submitted for laboratory analysis. Subsequent to field screening, four of the SBs were converted to permanent monitoring wells (MW-22/SB-56, MW-23/SB-51, MW-24/SB57, MW-25/SB-55; see **Figure 1.7**). The results of the February and March 2012 investigation activities indicated that the extent of soil contamination was defined to the extent practicable and that no additional indoor air quality sampling was necessary. However, the groundwater contaminant plume was not vertically delineated within the MW-12 well cluster or horizontally delineated on off-Site properties south of monitoring wells MW-8/MW-8D and MW-21 or east/southeast of the MW-12 well cluster.

Following a lengthy process to obtain access to properties owned/operated by Appalachian State University and Ivy Terrace Apartments, additional Phase II RI activities were conducted. Seven overburden wells (MW-28 and MW-30 through MW-35), one additional deeper bedrock well (MW-12D3), and two additional upper bedrock wells (MW-29D and MW32D) were installed between January and June 2013. The results of these activities were certified and submitted to the REC Program on September 24, 2013 in the *Remedial Investigation Addendum #2* (Amec Foster Wheeler, 2013a). Based on the results of these additional Phase II RI activities, and during preparation of the *Proposed Remedial Action Plan for Groundwater* (Amec Foster

Wheeler, 2013b), several additional data gaps were identified that warranted further investigation prior to the final completion of Site RI activities. These data gaps included: 1) Off-Site delineation of volatile organic compounds (VOCs) and 1,4-dioxane in groundwater southeast of wells MW-33 and MW-32D, 2) On-Site evaluation of VOCs in surface soil (0.5 to 5 feet bgs) east of borings SB-48 and SB-49, and 3) On-Site evaluation of 1,4-dioxane in soil.

Closure of the aforementioned data gaps was completed via installation of two additional monitoring wells (MW-36 and MW-36D) and the completion of 22 SBs (SB-50D through SB-71D) in December 2013. Because SBs completed in February 2012 also used the boring identifications of SB-50 through SB-57, these December 2013 SBs were given a “D” suffix to distinguish between the two sets of borings and also to denote analysis for 1,4-dioxane using United States Environmental Protection Agency (USEPA) Method 8260 Select Ion Monitoring (SIM). **Figure 1.7** shows the locations of the additional SBs performed to further evaluate the VOCs in soils southwest, south, southeast, and east of SB-48 and SB-49 (SB-63D through SB-69D) as well to evaluate 1,4-dioxane in Site soils. The first quarterly post-remediation groundwater monitoring event for the Site was also conducted in December 2013 and included 23 monitoring wells. Based on the results of the December 2013 Phase II RI activities, the delineation of Site-specific constituents of concern (CoCs) in various media was considered complete. A summary of the RI analytical laboratory results for 1,4-dioxane in soils is provided in **Appendix D** for reference.

The RI was subsequently certified as complete on July 9, 2014 as documented in the *Remedial Investigation Addendum #3 and First Post-Remediation Groundwater Monitoring Event* (Amec Foster Wheeler, 2014). Quarterly monitoring of groundwater quality was recommended to be conducted as presented in the Proposed RAP for Groundwater along with the addition of monitoring wells MW-32D and MW-33 to provide enhanced downgradient plume definition in the upper bedrock and overburden aquifers, respectively.

1.2.2.3 Subsequent Site Investigation Activities (June, July, October, December 2015)

Inorganic cyanide compounds are grouped into three classes: free cyanide, simple cyanide (alkali metal, alkaline earth metal, or ammonium cation bound to free cyanide), and metal cyanide complexes (negatively-charged ionic complexes consisting of several cyanide ions bound to a single transition metal cation). As the complexity of the cyanide compound increases, reactivity and toxicity decreases.

Free cyanide is the most toxic of the three aforementioned classes and is defined as the sum of the cyanide present as hydrogen cyanide (HCN) and as the cyanide anion (CN^-). The concentration of HCN versus CN^- is dependent on pH and temperature.

During the Site RI, total cyanide was detected in surface water, groundwater, and soils. The analytical method used for the detection of cyanide in these Site media was Standard Method (SM) 4500-CN-E, Total Cyanide. Total cyanide represents the sum of cyanide present in all three cyanide compound classes. As such, total cyanide is a conservative surrogate for free cyanide in cases where there are no analytical laboratory results based on free cyanide. However, when detections of total cyanide do occur, additional laboratory analysis for free cyanide is appropriate.

One analytical method used for free cyanide is SW846 Method 9014, which has been developed and approved by the USEPA. SW846 Method 9014 is a titrimetric and manual spectrophotometric determinative method that allows for the quantification of free cyanide present in soil, groundwater, and surface water versus the quantification of total cyanide by SM-4500-CN-E. Additionally, free cyanide is a more reliable measure of the toxicity to aquatic life than total cyanide because total cyanide can include nitriles and other stable metallocyanide complexes that are relatively non-toxic to aquatic life (USEPA, 1985).

To further evaluate the extent of cyanide detected in Site soils, groundwater, and surface water during the RI, additional sampling in these various media was conducted during the preparation of this Proposed RAP for Site Soils. However, prior to conducting this additional sampling, approval was sought from the REC Program project manager for the Site to use SW846 Method 9014 for free cyanide analysis.

In an email sent to the NCDEQ project manager dated May 27, 2015, Amec Foster Wheeler presented the rationale and justification for analyzing soils, groundwater, and surface water for free cyanide during future Site sampling events. The analytical method proposed was SW846 Method 9014. In an email received by Amec Foster Wheeler on June 1, 2015 from the REC Program project manager, the use of USEPA Method 9014 for future free cyanide analysis was approved. In the same correspondence, NCDEQ requested that total cyanide be analyzed for in addition to free cyanide for Site soils.

In a subsequent email sent to the NCDEQ project manager on June 10, 2015, Amec Foster noted that there were 13 different soil compounds listed for cyanide in the then current Inactive Hazardous Sites Branch (IHSB) PRSG table (NCDEQ, 2015b), but that many of these compounds could not be analyzed by an analytical laboratory. As a result, Amec Foster Wheeler proposed that any additional soil samples collected at the Site for cyanide should be analyzed for thiocyanate and free cyanide in addition to total cyanide because they represented the most conservative residential health-based PSRGs for cyanide in soils at that time. Additionally, Amec Foster Wheeler proposed analyzing for free cyanide instead of total cyanide for future groundwater sampling events because the 2L Standard for cyanide is based on free cyanide at a concentration of 70 micrograms per liter (µg/L) and not on total cyanide.

In a follow up email received from the REC Program project manager on June 10, 2015, approval was received to analyze future soil samples using thiocyanate, free cyanide, and total cyanide. The future analysis of groundwater samples for free cyanide instead of total cyanide was also approved in the same email.

Based on the aforementioned concurrence from the REC Program project manager, additional sampling of surface water and groundwater for free cyanide and total cyanide was conducted in June 2015. Additional sampling of Site soils for thiocyanate, free cyanide, and total cyanide was subsequently conducted in July 2015.

In addition to the aforementioned cyanide soil sampling activities, sampling activities for VOCs in Site soils were conducted in October 2015 to better define the extent of VOC impact as well as to minimize the quantity of VOC-impacted soils requiring remediation. Because SB samples for the RI were collected using a 50-foot grid pattern and also because the SB samples were only collected at 0.5 feet bgs, at the bottom of the boring, and from the interval with the highest flame

ionization detector (FID) reading, uncertainty existed as to the final areal and vertical extent of VOC-impacted soils that existed at the Site above their associated regulatory standards.

Because of the inability to analyze for many of the cyanide-related soil compounds listed in the March 2015 IHSB PSRG table (NCDEQ, 2015b), the list of cyanide-related soil compounds was reduced to just two compounds (total cyanide and cyanide [no free cyanide]) in the September 2015 IHSB PSRG table (NCDEQ, 2015c). Additionally, the USEPA Regional Screening Level (RSL) for total cyanide was lowered during the third quarter of 2015, which subsequently reduced the Residential PSRG to 0.54 milligrams per kilogram (mg/kg) and 3.2 mg/kg for total cyanide and cyanide (no free cyanide), respectively (USEPA, 2015). These changes required the collection of additional soil samples for free cyanide and total cyanide to complete cyanide delineation activities at the Site in December 2015. In addition, the detection of 1,4-dioxane in one of the October 2015 soil samples that was collected for VOCs coupled with the discovery that the extent of VOCs was not laterally and vertically delineated in the northeast corner of the Site prompted additional soil sampling for VOCs and 1,4-dioxane that was also conducted in December 2015.

The results of the June, July, October, and December 2015 sampling events are discussed in detail in Section 1.2.3.1.

1.2.3 RI and Subsequent Investigation Results Summary by Media

A summary of the RI results as well as a summary of subsequent results for investigations conducted at the Site in June, July, October, and December 2015 are discussed in conjunction with the media investigated in the following subsections. Soil sampling procedures and investigation-derived waste (IDW) management procedures for soil sampling activities were included in the RI Work Plan and are incorporated by reference herein.

1.2.3.1 Soils

Based on the RI activities conducted at the Site, areas of impacted soil are present. Underneath the facility, there was one detection of PCE at SB-10 above its POG PSRG of 5 micrograms per kilogram (µg/kg) at a depth of 11 feet bgs. In exterior building soil samples, POG PSRGs for VOCs were exceeded in samples collected at SB-24, SB-26, SB-29, SB-30, SB-38, SB-42, SB-43, SB-46, SB-47, SB-48, and SB-49. VOCs detected above their respective POG PSRGs during the RI included 1,1-DCA, naphthalene, PCE, 1,1,1-TCA, TCE, and vinyl chloride (VC). A summary of the RI analytical laboratory results for VOCs in soils is provided in **Appendix D** for reference.

Sampling for semi volatile organic compounds (SVOCs) in surface and subsurface soils during the Phase 1 RI detected the presence of the SVOC benzo(a)pyrene in one out of 131 soil samples. During the installation of monitoring well MW-12D, benzo(a) pyrene was detected at a depth of 20 feet bgs at an estimated concentration of 80.8 µg/kg. Because benzo(a) pyrene was not detected in soil samples collected from other SBs in the vicinity of MW-12D and also because benzo(a)pyrene was not detected in Site groundwater (including MW-12D), benzo(a)pyrene is not believed to be Site related and remedial action for this constituent is not warranted. A summary of the RI analytical laboratory results for SVOCs in soils is provided in **Appendix D** for reference.

Based on an evaluation of Hazardous Substance List (HSL) metals in Site soils and Site groundwater, HSL metals with soil concentrations greater than their respective Residential PSRGs are either naturally occurring or are present at concentrations below maximum background concentrations. HSL metals with soil concentrations greater than their POG PSRGs have either not been detected at concentrations that exceed their respective 2L Standards or the 2L Standard exceedance is a result of the natural occurrence of the metal. As a result, remedial action for HSL metals detected in Site soils is not warranted (Amec Foster Wheeler, 2013a). A summary of the RI analytical laboratory results for metals in soils is provided in **Appendix D** for reference.

During the RI, total cyanide was detected at concentrations that exceeded its then current POG PSRG for CN^- (14 mg/kg) in soil samples SB-16, SB-42, and SB-44. In addition, total cyanide was detected in SB-20, SB-30, and SB-48 above its then current health-based Residential PSRGs for CN^-, HCN, and thiocyanate (4.2 µg/kg, 4.6 µg/kg, and 3.2 µg/kg, respectively; NCDEQ, 2015b).

1.2.3.1.1 Additional Soil Delineation – Cyanide

Additional delineation activities for cyanide in Site soils was conducted in July and December 2015 in order to better define the extent and to minimize the quantity of impacted cyanide-impacted soils requiring remediation. The “a” boring designations indicate boring advanced adjacent to the corresponding RI boring. The “b”, “c”, “d”, and “e” boring designations indicate step-out borings from the “a” boring to determine horizontal extent, if necessary. Soil samples from each boring were collected from the same sample depth (primary sample) as the corresponding RI boring sample depth. The step-out boring sample collection depths were the same as the corresponding “a” boring primary sample depth. Additionally, each “a” boring had at least one vertical extent soil sample collected below the primary sample.

In July 2015, a Geoprobe® direct-push technology (DPT) rig was used to advance 20 soil borings near four RI borings that had the highest detections of total cyanide (SB-16, SB-30, SB-42, and SB-44). The borings are identified as SB-16a through SB-16e, SB-30a through SB-30e, SB-42a through SB-42e, and SB-44a through SB-44e on **Figure 1.6**. Boring logs for the July 2015 soil boring locations are included in **Appendix E**.

Soil samples collected from July 2015 SBs were sent to Pace Analytical Services, Inc. (Pace) in Huntersville, North Carolina for analyses. For the July 2015 sampling event, Amec Foster Wheeler requested that the lab hold the deeper sample from the “a” borings and all of the samples from the step-out borings pending results from the primary samples from the “a” borings. The four primary samples (SB-16a-10’, SB-30a-0.5’, SB-42a-14’, and SB-44a-18’) were analyzed for thiocyanate via SM 4500-CN-M, free cyanide via SW846 Method 9014, and total cyanide via SM 4500-CN-E with a requested three-day turnaround time. Based on the results for these four initial primary samples, the deeper soil samples in borings SB-16a (SB-16a-13’), SB-42a (SB-42a-17’), and SB-44a (SB-44a-21’) and the step-out borings of SB-42a (SB-42b-14’, SB-42c-14’, SB-42d-14’, and SB-42e-14’) were analyzed for thiocyanate, free cyanide, and total cyanide (seven samples total). The primary samples as well as the additional samples were analyzed for the synthetic precipitation leaching procedure (SPLP) by SW846 Method 9012B. The laboratory analytical results for the additional cyanide soil samples collected in July 2015

are summarized in **Table 1.1**. The associated analytical laboratory data packages are included in **Appendix E**.

Because of the previously discussed changes to the Residential PSRG for total cyanide in September, the July 2015 soil sample results are compared to the new standards in **Table 1.1**. There were no detections of thiocyanate, but its Residential PSRG (3.2 mg/kg) was eliminated in the September 2015 IHSB PSRG table; therefore, this data was determined to be irrelevant. Comparisons of the results were also made to the new Residential PSRGs for total cyanide and cyanide (no free cyanide). In order to compare the sample results to the cyanide (no free cyanide) Residential PSRG, the free cyanide result had to be less than the corresponding total cyanide result. If this was not the case, than the total cyanide Residential PSRG was used for comparison purposes. The July 2015 results indicated that several soil samples exceeded the total cyanide Residential PSRG but not the cyanide (no free cyanide) Residential PSRG. In addition, two soil sample locations had detections above the POG PSRG of 14 mg/kg. Finally, because the SPLP data was collected for total cyanide, it was determined that this data was not meaningful because the 2L Standard for cyanide is based on free cyanide rather than total cyanide. Based on this evaluation of the July 2015 soil sampling activities, further investigation of cyanide in Site soils was determined to be necessary.

In December 2015, a Geoprobe® DPT rig was used to advance nine additional borings near four RI borings that had elevated detections of total cyanide (SB-17, SB-20, SB-46, and SB-48). The borings are identified as SB-17a, SB-20a through SB-20c, SB-46a, and SB-48a through SB-48d on **Figure 1.6**. Boring logs were not completed for the December 2015 sampling activities because these soil samples were collected in the same general areas as the soil samples that were collected in July 2015 when boring logs were completed.

Fifteen soil samples were collected from the December 2015 borings (SB-17a-5', SB-17a-10', SB-17a-15', SB-20a-0.5', SB-20a-5', SB-20a-10', SB-20b-5', SB-20c-5', SB-46a-15', SB-46a-20', SB-48a-0.5', SB-48a-5', SB-48b-0.5', SB-48c-0.5', and SB-48d-0.5'). The collected soil samples were sent to Pace and analyzed for free cyanide via SW846 Method 9014 and total cyanide via SM 4500-CN-E. **Table 1.2** summarizes the December 2015 laboratory analytical results for the additional cyanide samples. The associated analytical laboratory data packages are included in **Appendix E**.

1.2.3.1.2 Additional Soil Delineation – VOCs

Additional delineation activities for VOCs in Site soils was conducted on October 2015 to better define the extent and to minimize the quantity of impacted VOC-impacted soils requiring remediation. Because SB samples for the RI were collected using a 50-foot grid pattern and also because the SB samples were only collected at 0.5 feet bgs, at the bottom of the boring, and from the interval with the highest FID reading, uncertainty existed as to the actual areal and vertical extent of VOC-impacted soil that existed above their associated regulatory standards at the Site.

Although 1,4-dioxane is a VOC, for the purposes of this Proposed RAP, 1,4-dioxane is discussed separately from the other site-related VOCs because its inherent characteristics including low volatilization (low Henry's constant), high solubility (miscible), and lower affinity for sorption make remediation options for this compound different from the other Site-related VOCs.

A Geoprobe® DPT rig was used to collect 107 soil samples from 45 locations. The borings are identified as DS-1 through DS-4, DS-4A, DS-5 through DS-7, DS-10, DS-12 through DS-34, DS-36A, DS-37 through DS-40, DS-42, DS-43, and DS-45 through DS-50 on **Figure 1.7**. Due to proximity to previous boring locations, borings DS-8, DS-9, DS-11, DS-35, DS-36, DW-41, and DS-44 were not drilled. Soil samples collected for the additional delineation of VOC-impacted soils were initially field screened for chlorinated VOCs using the Color-Tec method. The Color-Tec method is an effective low cost, field-based analytical method used to detect chlorinated compounds in soil. Because PCE is the most widespread Site-related CoC in soils, Gastec® 133LL tubes were used. These tubes respond to PCE in soil and its daughter products as well as other chlorinated solvents. For those soil samples where the 133LL tubes had a positive response, the depth at which the sample was collected was assumed to contain VOCs above the POG PSRGs, and no sample was submitted for analytical analysis. When no response was detected in the Gastec® 133LL tube, a soil sample was sent from the corresponding interval to Pace for VOC analysis via USEPA Method 8260B. Boring logs for the October 2015 soil sample locations deeper than five feet are included in **Appendix E**.

A total of 105 samples collected from the October 2015 borings were sent to Pace for analysis. The soil samples were analyzed for VOCs by USEPA Method 8260 and 1,4-dioxane by USEPA 8260 SIM. PCE was detected in boring DS-13 (8 to 10 feet bgs) at 6 µg/kg, slightly above its POG PSRG of 5 µg/kg underneath the facility in the same area that it was detected during the RI. Based on this sampling event, only one small area of soil exists underneath the facility that requires remediation. An area of elevated VOC detections in soil was found in the vicinity of DS-28, which was located approximately 40 feet to the southeast of the MW-4 monitoring well pair near the edge of the asphalt driveway. In addition to elevated detections of chlorinated VOCs above their respective POG PSRGs, this sample location also had detections of fuel-related constituents above their respective POG PSRGs. At one depth interval (8 to 10 feet bgs) in DS-28 and DS-28A, total xylenes also exceeded its Residential PSRG.

An area of VOC-impacted soil that previously was defined to the south, southeast, and east of the former hazardous waste storage area was also determined to exist to the northeast. Review of this data indicated that further lateral and vertical delineation of VOCs in Site soil was required to the northeast.

Although 1,4-dioxane had been detected in Site groundwater above its 2L Standard of 3 µg/L during site investigation activities, Phase II RI activities determined that 1,4-dioxane was not present in Site soils above its POG PSRG of 12 µg/kg using USEPA Method 8260 SIM. However, during the October 2015 soil delineation activities for VOCs, one SB location had elevated concentrations of 1,4-dioxane. At DS-20, 1,4-dioxane was detected at concentrations of 348 µg/kg and 488 µg/kg at depths of 23-25 feet bgs and 28-30 feet bgs, respectively (**Figure 1.8**). Because 1,4-dioxane was not believed to be an issue in Site soils based on the Phase II RI soil sampling results, these two detections of 1,4-dioxane were detected using USEPA Method 8260, which has a method detection limit that is much higher than USEPA Method 8260 SIM. Based on these two detections, additional sampling to delineate the horizontal and vertical extent of 1,4-dioxane in Site soils in the vicinity of DS-20 was necessary.

Additional delineation activities for VOCs and 1,4-dioxane in Site soils were conducted in December 2015 to further refine the extent and the quantity of impacted Site soils requiring remediation. A Geoprobe® DPT rig was used to collect 56 soil samples from 11 borings. The

borings are identified as DS-19A, DS-20A, DS-25A, DS-26A, DS-36B, DS-39A, DS-41A, DS-44A, and DS-51 through DS-53 on **Figure 1.7**. Boring logs were not completed for the December 2015 sampling activities because these soil samples were collected in the same general areas as the soil samples that were collected in October 2015 when boring logs were completed. The collected soil samples were sent to Pace and analyzed for VOCs by USEPA Method 8260 and 1,4-dioxane by USEPA 8260 SIM.

As a result of the December 2015 soil sampling event, lateral and vertical delineation of VOCs to the northeast of the former hazardous waste storage area was completed. An area of elevated concentrations of chlorinated VOCs and weathered fuels was also confirmed in the vicinity of DS-25A, DS-28, and DS-28A (**Figure 1.7**). The extent of 1,4-dioxane that exceeded its POG PSRG (12 µg/kg) was delineated in the vicinity of DS-20 (**Figure 1.8**).

The results of the October 2015 and December 2015 laboratory analytical results are summarized on **Table 1.3**. The associated laboratory analytical packages are included in **Appendix E**.

1.2.3.1.3 Summary of Additional Soil Delineation Activities

Based on the Phase I RI and subsequent Phase II RI activities, it was determined that soils at the Site were impacted by release(s) of VOCs and to a lesser extent by cyanide. Subsequent sampling activities conducted in 2015 also determined that portions of Site soils were impacted by 1,4-dioxane. Because of the unique characteristics of 1,4-dioxane, this compound is discussed independently of the other site-related VOCs in this Proposed RAP. The estimated areal extent of cyanide-, VOC-, and 1,4-dioxane-impacted soils are shown in **Figure 1.6, Figure 1.7,** and **Figure 1.8**, respectively.

1.2.3.2 Groundwater

RI activities conducted at the Site between July 2011 and June 2013 further delineated groundwater at the Site that had been impacted by release(s) of chlorinated solvents and cyanide. TCE and 1,1,1-TCA were formerly used as cleaning solvents in a vapor degreaser located at the tool manufacturing facility and have been detected in groundwater at the Site. In the subsurface, TCE can degrade via reductive dechlorination to daughter products including cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene, 1,1-dichloroethene (1,1-DCE), and VC. Similarly, 1,1,1-TCA can degrade to daughter products 1,1-DCE, 1,2-dichloroethane, or 1,1-DCA. Concentrations of the known used solvents and daughter products exceed the 2L Standards in Site monitoring wells. The impact of these solvents to groundwater beneath the Site and adjacent properties to the south and east served as the basis for the Proposed RAP for Groundwater.

Historically, monitoring well MW-4 has consistently had the highest detections of total cyanide. Another monitoring well with consistent elevated detections of total cyanide is MW-12D. **Figures 1.3 and 1.4** show the location of MW-4 and MW-12D, respectively. On June 25, 2015, MW-4 and MW-12D were sampled for free cyanide via SW846 Method 9014 to determine if the concentration exceeded its 2L Standard of 70 µg/L (0.070 milligrams per liter [mg/L]). The samples were also analyzed for total cyanide via SM 4500-CN-E for comparison purposes. The groundwater samples were sent to Pace for analysis. The results for the groundwater samples

are presented on **Table 1.4**. For the sample collected at MW-4, the free cyanide result of 0.173 mg/L exceeded its 2L Standard of 0.070 mg/L. For the sample collected at MW-12D, the free cyanide result of 0.018 mg/L was below the 2L Standard. The associated analytical laboratory data package is included in **Appendix E**.

The Proposed RAP for Groundwater was certified on August 13, 2013, and it addressed impacted groundwater via extraction and treatment using an air stripper and hydrogen peroxide/ultraviolet light system with subsequent discharge to the Town of Boone Publically Owned Treatment Works (POTW). Periodic influent and effluent sampling is conducted in accordance with the Town of Boone POTW Industrial User Permit No. R006, and reports documenting permit compliance are submitted to the Town of Boone on a quarterly basis.

Following certification of the Proposed RAP for Groundwater, quarterly groundwater monitoring events were conducted between December 2013 and December 2014. Quarterly Remedial Action Progress Reports (RAPRs) were prepared and subsequently submitted to the REC Program to document these quarterly groundwater monitoring events and the associated results. Beginning in 2015, semi-annual groundwater monitoring was initiated for the Site.

Because a Proposed RAP for Groundwater has previously been prepared and certified for the Site, this Proposed Rap for Site Soils does not address the remediation of impacted Site groundwater.

1.2.3.3 Sediment

According to Section 4.1 of the RI Report (Amec Foster Wheeler, 2011b), the results for the eight sediment samples collected from an unnamed tributary to Boone Creek located to the southwest of the facility and from an unnamed tributary to Winkler Creek located to the east of the facility did not indicate impact from the organic CoCs found on Site in soils and groundwater. HSL metals results indicated that some antimony, cadmium, manganese, and selenium detections exceeded either the respective sediment screening value or their respective POG PSRG but not the health-based Industrial PSRG. However, the inorganic results were generally within the expected range of background concentrations for the region. As a result, it was concluded that sediment quality had not been impacted by releases from the Site, and no further investigation or remediation of sediment was warranted.

Upon further review of the RI sediment data for this Proposed RAP, there was one detection of the SVOC benzo(a)pyrene noted at an estimated concentration of 91.7 µg/kg at location SED-7 that was above its Residential PSRG (15 µg/kg) and also its POG PSRG (59 µg/kg). Sediment samples SED-5 and SED-6 that were collected upgradient of SED-5 did not have detections of benzo(a)pyrene above these standards; therefore, the SVOC benzo(a)pyrene detection at SED-7 is not believed to be Site related and remedial action for Site sediments is not warranted.

Appendix D contains the RI sediment sample results, and **Figure 1.9** shows the sediment sample locations. Note that on this figure that SD-1 is the same location as SED-1. The Phase 1 RI used SED-1 as the sediment sample location and subsequent RI activities used SD-1 as the sediment sample location. This overlapping nomenclature holds true for the seven other sediment sampling locations.

1.2.3.4 Surface Water

The Phase I RI results for the four surface water samples obtained from the unnamed tributary to Boone Creek did not indicate impact from the organic CoCs found on Site in soil and groundwater. Of the four surface water samples collected from the unnamed tributary to Winkler Creek, one sample (SW-6) had potential impact from the Site groundwater plume since low level detections of Site-related organic compounds were detected. However, no North Carolina Surface Water Standards as defined in Title 15A, Subchapter 2B, Section .0202 of the North Carolina Administrative Code (2B Standards) were exceeded in the SW-6 detections (Amec Foster Wheeler, 2011).

Total cyanide was detected above its 2B Standard (which is based on free cyanide) for freshwater aquatic life of 5 µg/L in SW-1, SW-3, and SW-5 at concentrations of 5.5 µg/L, 6.2 µg/L, and 6.1 µg/L, respectively. Zinc was also detected above its 2B Standard for freshwater aquatic life of 50 µg/L at SW-5 with a concentration of 191 µg/L. Since zinc was not used as part of historical facility operations, this one exceedance is not believed to be Site related.

Additional surface water sampling results were obtained during two separate sampling events that were conducted on April 16, 2013 and May 29, 2013 as part of Phase II RI activities. The April 2013 sampling event focused on the evaluation of hexavalent chromium in surface water near the Site. The May 2013 sampling event expanded the target analyte list to include analyses for VOCs and 1,4-dioxane. Based on these additional sampling events, hexavalent chromium, VOCs, and 1,4-dioxane were not detected above any applicable 2B Standards and therefore did not warrant further investigation or the need for remedial action (Amec Foster Wheeler, 2013a). **Appendix D** contains the RI surface water sample results, and **Figure 1.9** shows the surface water sample locations.

Because cyanide was not sampled for during either the April 2013 or May 2013 events, the collection of additional surface water samples was conducted during preparation of this Proposed RAP. On June 25, 2015, a surface water sample was collected at location SW-5 (**Figure 1.9**). Surface water samples could not be collected at SW-1 and SW-3 because both sample locations were dry. According to a local resident, this particular surface drainage (a tributary to Boone Creek) had been dry for the past couple of years. Because the 2B Standard for freshwater aquatic is based on free cyanide, SW-5 was analyzed for free cyanide using SW846 EPA Method 9014. SW-5 was also analyzed for total cyanide using SM 4500-CN-E for comparison purposes. This sample was sent to Pace in Huntersville, North Carolina for analysis.

The results for SW-5 are presented on **Table 1.4**. The free cyanide result was less than 0.005 mg/L, and the total cyanide result was an estimated 0.0043 mg/L. Since the free cyanide result was less than the 2B Standard of 0.005 mg/L and because the other two sample locations where cyanide was previously detected were dry, cyanide in surface water requires no further investigation or the need for remediation. **Appendix E** contains the associated analytical laboratory report for SW-5.

1.2.3.5 Indoor Air Quality

Indoor air quality samples were collected in August 2011 and also in February 2012. Detected VOC concentrations were compared to the NCDEQ, IHSB, Vapor Intrusion Screening Table for

Industrial/Commercial (VISTI/C) exposure. For the analytes detected, there were no exceedances of their respective VISTI/C standards; therefore, remedial action related to indoor air quality is not warranted.

1.3 DATA VALIDATION

Sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 2008; USEPA, 2010). Project data quality criteria for the analyses are identified based on laboratory quality control (QC) goals and the professional judgment of the project chemist. The laboratory QC limits were used during data validation. A Level II validation was performed on the laboratory analysis data. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory narrative
- sample chain of custody/sample condition upon receipt form
- sample preservation
- QC blanks (method, rinse, field, and trip)
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- field replicate sample results
- sample results summary
- verification of electronic data deliverable (EDD) results

Validation reason codes are applied to the results to document the reason for necessary data qualification. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below are generally used to qualify data that did not meet project specific QC goals.

J	Estimated value
R	Unusable
U	Undetected
UJ	Undetected and reporting limit is estimated

1.3.1 June and July 2015

Surface water, groundwater, and soil samples were collected during sampling completed during June and July 2015. The soil samples were analyzed by Pace in Asheville, North Carolina, Pace in Charlotte, North Carolina, Pace in Greensburg, Pennsylvania, Pace in Indianapolis, Indiana, or Laboratory Resources & Solutions, Inc. (LRS) in Ashville, Alabama (under contract to Pace). Sample results were submitted from Pace in three sample delivery groups (SDGs): 92256170, 92261498, and 92261516.

Samples reviewed in these SDGs were analyzed for one or more of the following USEPA SW-846 methods:

- Cyanide by Method Standard Method (SM) 4500-CN-E
- Thiocyanate by Method SM 4500-CN-M
- Free Cyanide by Method USEPA 9014
- SPLP Total Cyanide by Method USEPA 0012B

With the exception of the data qualification actions identified below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Low recovery of thiocyanate in two MS/MSD pairs resulted in the qualification of the thiocyanate results in sample SB-30A-0.5 reported in SDG 92261498 and sample SB-42A-17 reported in SDG 92261516.
- Low recovery of free cyanide in two MS/MSD pairs resulted in the qualification of the free cyanide results in sample SB-30A-0.5 reported in SDG 92261498 and sample SB-42A-17 reported in SDG 92261516.

Validation reason codes are applied to the results to document the reason for the validation qualification. A data validation report is included in **Appendix E**.

1.3.2 October 2015

Soil samples were collected during the October 2015 sampling event. The soil samples were analyzed by Pace in Charlotte, North Carolina. Samples reviewed in this report were analyzed for volatile organic compounds (VOCs) by USEPA Method 8260. Sample results were submitted from Pace Analytical in three SDGs: 92272410, 92272696, and 92272895.

With the exception of the data qualification actions identified below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Detection of methylene chloride and toluene in Trip Blank 01 resulted in qualification of methylene chloride results in samples DS-1 (18-20), DS-1 (23-25), DS-1 (28-30), DS-3 (18-20), DS-13 (0-2), DS-13 (3-5), DS-13 (8-10), DS-13 (13-15), DS-14 (0-2), DS-14 (13-15), DS-14 (3-5), DS-14 (8-10), DS-4A (18-20), DS-4A (23-25), and DS-4A (28-30), and; toluene results in samples DS-13 (3-5) and DS-4A (28-30) reported in SDG 92272410.
- Detection of 2-butanone, acetone, methylene chloride, and toluene in Trip Blank 02 resulted in qualification of 2-butanone results in samples DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), and DS-10 (8-10); acetone results in samples DS-3 (23-25), DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), DS-10 (13-15), and; methylene chloride results in samples DS-3 (23-25), DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), DS-10 (13-15), and; toluene results in samples DS-10 (3-5), DS-10 (8-10), DS-3 (28-30), and DS-6 (23-25) reported in SDG 92272410.
- Low recovery of in a MS resulted in the qualification of the 1,1,2,2-tetrachloroethane and vinyl acetate results in sample DS-14 (0-2) reported in SDG 92272410.

- Low recovery in a MS resulted in the qualification of the 1,2,3-trichlorobenzene result in sample DS-4A (18-20) reported in SDG 92272410.
- Detection of methylene chloride in a Field Blank (FB-02) resulted in qualification of methylene chloride results in samples DS-17 (18-20), DS-17 (23-25), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-20 (28-30), DS-21 (0-2), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-26 (3-5), DS-26 (8-10), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), DS-26 (28-30), DS-27 (0-2), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), and DS-34 (13-15) reported in SDG 92272696.
- Detection of acetone, methylene chloride, and toluene in Trip Blank 03 resulted in qualification of acetone results in samples DS7-(8-10), DS7-(13-15), DS-16 (18-20), DS-16 (23-25), DS-16 (28-30), DS-21 (0-2), DS-21 (3-5), DS-27 (0-2), DS-27 (3-5), DS-31 (13-15), DS-33 (8-10), DS-34 (8-10), DS-34 (13-15); methylene chloride results in samples DS7-(8-10), DS7-(13-15), DS-16 (18-20), DS-16 (23-25), DS-16 (28-30), DS-21 (0-2), DS-21 (3-5), DS-27 (0-2), DS-27 (3-5), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), DS-34 (13-15), FB-02; and toluene results in sample DS7-(13-15) reported in SDG 92272696.
- Detection of acetone in Trip Blank 04 resulted in qualification of acetone results in samples DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-22 (8-10), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-27 (8-10), and DS-27 (13-15) reported in SDG 92272696.
- Low recovery in the LCS resulted in the qualification of the vinyl acetate results in samples DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), and Trip Blank 04 reported in SDG 92272696.
- The following acetone concentrations were qualified as not detected due to professional judgment: DS-22 (13-15), DS-20 (23-25), DS-26 (3-5), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), and DS-26 (28-30) (SDG 92272696) were raised to their reporting limits and qualified as “U”.
- Detection of naphthalene in a method blank resulted in the qualification of the naphthalene result in sample DS-39 (23-25) reported in SDG 92272895.
- Detection of acetone in a method blank resulted in the qualification of the acetone results in samples DS-39 (0-2) and DS-46 (3-5) reported in SDG 92272895.
- Detection of acetone, methylene chloride, and toluene in Trip Blank 06 resulted in qualification of acetone results in samples DS-28 (0-2), DS-28 (3-5), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), and DS-49 (3-5); methylene chloride results in samples DS-28 (0-2), DS-28 (3-5), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), DS-40 (0-2), DS-40 (3-5), DS-49 (0-2), and DS-49 (3-5); and the toluene result in sample DS-49 (3-5) reported in SDG 92272895.

- Detection of 2-butanone and toluene in Trip Blank 07 resulted in qualification of the 2-butanone result in sample DS-46 (0-2); and toluene results in samples DS-39 (23-25) and DS-49 (8-10) reported in SDG 92272895.
- Detection of methylene chloride in Trip Blank 08 resulted in qualification of methylene chloride results in samples DS-38 (3-5), DS-38 (18-20), DS-38 (23-25), DS-39 (0-2), DS-39 (3-5), DS-42 (0-2), DS-43 (3-5), DS-45 (0-2), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), and DS-50 (13-15) reported in SDG 92272895.
- Low recovery in the LCS resulted in the qualification of the 1,1,2-trichloroethane results in samples DS-28 (23-25) and DS-28 (28-30) reported in SDG 92272895.
- Low recovery in an LCS resulted in the qualification of the 1,1,2,2-tetrachloroethane and vinyl acetate results in samples DS-39 (0-2), DS-39 (3-5), DS-46 (3-5), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), and DS-50 (13-15) reported in SDG 92272895.
- Relative percent difference (RPD) in the laboratory duplicate pair resulted in the qualification of the cis-1,2-dichloroethene and tetrachloroethene results in the sample DS-38 (18-20) reported in SDG 92272895.
- RPD in the laboratory duplicate pair resulted in the qualification of the tetrachloroethene results in the sample DS-39 (0-2) reported in SDG 92272895.
- Low recovery in a MS resulted in the qualification of the 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, hexachloro-1,3-butadiene, n-butyl benzene, naphthalene, p-isopropyltoluene, and tetrachloroethane results in sample DS-28 (0-2) reported in SDG 92272895.
- Low recovery in a MS sample resulted in the qualification of the hexachloro-1,3-butadiene result in sample DS-38 (23-25) reported in SDG 92272895.
- The following acetone concentrations were qualified as not detected due to professional judgment: DS-49 (8-10), DS-49 (13-15), DS-48 (3-5), DS-47 (0-2), DS-39 (23-25), DS-46 (0-2), DS-47 (3-5), DS-38 (28-30), DS-43 (3-5), DS-42 (3-5), DS-38 (18-20), DS-38 (23-25), and DS-42 (0-2) in SDG 92272895 were raised to their reporting limits and qualified as “U”.
- The following methylene chloride concentrations were qualified as not detected due to professional judgment: DS-49 (8-10), DS-49 (13-15), DS-48 (3-5), DS-39 (28-30), DS-47 (0-2), DS-48 (0-2), DS-47 (3-5), DS-39 (18-20), DS-43 (0-2), DS-38 (0-2), DS-38 (28-30), DS-42 (3-5), and DS-45 (3-5) in SDG 92272895 were raised to their reporting limits and qualified as “U”.

Validation reason codes are applied to the results to document the reason for the validation qualification. A data validation report is included in **Appendix E**.

1.3.3 December 2015

Soil samples were collected during sampling completed during December 2015. The soil samples were analyzed by Pace Asheville, North Carolina; Charlotte, North Carolina; and Indianapolis, Indiana. Sample results were submitted from Pace in two SDGs: 92279773, and 92280019.

Samples reviewed in this report were analyzed for one or more of the following USEPA SW-846 (USEPA, 1996) methods:

- VOCs in soil by USEPA Method 5035/8260B
- 1,4-dioxane by USEPA Method 8260B Modified (analyzed by Selective Ion Monitoring or SIM)
- Cyanide by Method SM 4500-CN-E
- Free Cyanide by Method USEPA 9014

With the exception of the data qualification actions identified below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Detection of methylene chloride in a method blank resulted in qualification of methylene chloride results in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), DS-28A (3-5), and TB-02 reported in SDG 92279773.
- Detection of toluene and o-xylene in a Field Blank (FB-01) resulted in qualification of the toluene result in sample DS-28A (30-32) and the o-xylene result in sample DS-28A (18-20) reported in SDG 92279773.
- Detection of methylene chloride in trip blanks (TB-01, TB-02, TB-03, and TB-04) resulted in qualification of methylene chloride results in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-19A (13-15), DS-19A (18-20), DS-19A (23-25), DS-19A (28-30), DS-20-A (0-2), DS-20-A (3-5), DS-20-A (8-10), DS-20-A (13-15), DS-20-A (18-20), DS-20A (23-25), DS-20A (28-30), DS-25A (0-2), DS-25A (3-5), DS-25A (18-20), DS-25A (23-25), DS-25A (28-30), DS-28A (0-2), DS-28A (3-5), DS-28A (18-20), DS-28A (23-25), DS-28A (28-30), and DS-28A (30-32) reported in SDG 92279773.
- Detection of acetone in trip blanks (TB-03 and TB-04) resulted in qualification of acetone results in samples DS-25A (3-5), DS-25A (18-20), DS-25A (23-25), DS-25A (28-30), DS-52 (3-5), and DS-53 (0-2) reported in SDG 92279773.
- Low recovery of vinyl acetate in the LCS resulted in the qualification of the vinyl acetate results in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), DS-28A (3-5), and TB-02 reported in SDG 92279773.
- Low recovery of 1,1,2,2-tetrachloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethane, and vinyl acetate in an MS resulted in the qualification of the 1,1,2,2-tetrachloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethane, and vinyl acetate results in sample DS-25A (3-5) reported in SDG 92279773.
- High recovery of 1,1-dichloroethane in an MS resulted in the qualification of the 1,1-dichloroethane result in sample DS-25A (3-5) reported in SDG 92279773.
- Low recovery of hexachloro-1,3-butadiene and styrene in an MS resulted in the qualification of the hexachloro-1,3-butadiene and styrene results in sample DS-53 (13-15) reported in 92279773.
- The following acetone concentrations were qualified as not detected due to professional judgment: DS-19A (0-2), DS-19A (13-15), DS-20-A (13-15), DS-20-A

(18-20), DS-20A (28-30), DS-28A (0-2), DS-28A (18-20), DS-28A (23-25), DS-28A (23-25)DUP, DS-28-A (30-32), DS-51 (0-2), and DS-52 (3-5)DUP (SDG 92279773) were raised to their reporting limits and qualified as "U".

- Detection m&p-xylene in a Field Blank (FB-02) resulted in qualification of the m&p-xylene result in sample DS-39A (13-15) reported in SDG 92280019.
- Detection of acetone and methylene chloride in a trip blank (TB-06) and detection of methylene chloride in a trip blank (TB-07) resulted in qualification of acetone results in samples DS-36B (13-15) and DS-39A (23-25); and methylene chloride results in samples DS-36B (13-15), DS-36B (18-20), DS-36B (23-25), DS-39A (0-2), DS-39A (3-5), DS-39A (8-10), DS-39A (13-15), DS-39A (18-20), DS-39A (23-25), DS-39A (28-30), DS-41A (0-2), DS-41A (3-5), DS-44A (3-5), and DS-44A (8-10) reported in SDG 92280019.
- Low recovery of vinyl acetate in the LCS resulted in the qualification of the vinyl acetate results in samples DS-39A (13-15), DS-39A (23-25), DS-39A (28-30), DS-41A (3-5), and DS-44A (0-2) reported in SDG 92280019.
- Low recovery of methylene chloride in an MS would have resulted in the qualification of the methylene chloride result in sample DS-41A (3-5) reported in SDG 92280019. However, this concentration was already qualified as non-detect and raised to the reporting limit due to detection in a blank. No further qualification was required.
- Low recovery of total cyanide in an MS sample resulted in the qualification of the total cyanide result in sample SB-20A (5.0) reported in SDG 92280019.

Validation reason codes are applied to the results to document the reason for the validation qualification. A data validation report is included in **Appendix E**.

1.4 NATURE AND EXTENT OF CONTAMINATION

Based on the Phase I and Phase II RI activities as well as the additional investigation activities conducted in June, July, October, and December 2015, it has been determined that Site soils have been impacted by release(s) of VOCs and to a lesser extent by cyanide and 1,4-dioxane. It was also determined by these activities that sediment and surface water at the Site have not been impacted and therefore do not warrant further investigation or remediation. VOC-impacted Site groundwater is currently being remediated and is addressed in the Proposed RAP for Groundwater (Amec Foster Wheeler, 2013b).

The CoCs for Site soils have been identified as the following:

- 1,1,1-TCA
- 1,1-DCA;
- PCE;
- TCE;
- Cis-1,2-DCE;
- VC;
- Ethylbenzene;

- Total Xylenes;
- Naphthalene;
- 1,4-Dioxane; and
- Cyanide.

A definitive source area(s) for impacted Site soils was not identified during the RI or subsequent investigation activities; however, based on historical facility operations, it is likely that a release or releases of vapor degreasing solvents (PCE, TCE, 1,1,1-TCA) and fuel oil to Site soils has previously occurred. One particular area of highly concentrated contaminated soil was located to the south of the MW-4 well pair near the edge of the existing asphalt driveway next to a steep hillside. The released materials from the Site appear to have migrated downward though the underlying soils over time and into Site groundwater and subsequently downgradient with the groundwater due to downward vertical hydraulic gradients, advection, and dispersion.

Based on the RI, the SBs with the most detections of CoCs as well as the highest detected concentrations of soils CoCs were located at SB-42 and SB-46. PCE was the most widely detected CoC in Site soils. Historically, PCE has been consistently detected in soils located along the southern portion and southeastern corner of the existing facility. Monitoring well MW-4, which is located near the southeastern corner of the facility has historically had the highest detections of PCE in groundwater. Additional soil sampling for the delineation of VOCs in Site soils in 2015 confirmed that the highest detections of total VOCs were located immediately to the east and southeast of SB-42 at a depth interval of 8 to 10 feet bgs. **Figures 1.10 through 1.12** show the extent of total VOCs (not including 1,4-dioxane) detected in soil above the POG PSRG for PCE at 0.5 to 5 feet bgs, 5 to 15 feet bgs, and 15 to 30 feet bgs, respectively.

1,4-Dioxane was not detected above any regulatory standards during the RI; however, it was detected above its POG of 12 µg/kg during 2015 soil sampling activities. The area was confirmed to be located in one particular area of the site that was centered near RI investigation boring SB-42 and 2015 boring DS-20. **Figures 1.13 through 1.15** show the extent of 1,4-dioxane detected above its POG PSRG from 0.5 to 5 feet bgs, 5 to 15 feet bgs, and 15 to 30 feet bgs, respectively. A review of these figures confirms that the largest lateral extent of impact and highest concentrations of 1,4-dioxane are located within the 15 to 30 feet bgs interval.

Cyanide was detected in soils at several areas of the Site above its then current POG PSRG and Residential PSRG during the RI. Additional delineation of cyanide was conducted in July 2015 to establish the area of cyanide-impacted requiring remediation. Based on a change (lowered standard) to the Residential PSRG for cyanide during the Third Quarter of 2015, additional delineation for cyanide was conducted in December 2015. **Figure 1.7** shows the extent of cyanide-impacted soil above its current Residential PSRG of 0.54 mg/kg.

1.5 REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) specify Site remediation goals and identify CoCs, media of concern, and exposure pathways to be addressed by the proposed remedial actions. The RAOs are used to screen technologies and to evaluate and compare remedial alternatives. Because sediment and surface water were not determined to be impacted by historical facility operations, the only media of concern addressed by this Proposed RAP is impacted Site soils. The CoCs identified for impacted Site soils are:

- VOCs including 1,1,1-TCA, 1,1-DCA, PCE, TCE, cis-1,2-DCE, VC, ethylbenzene, total xylenes, and naphthalene;
- 1,4-dioxane; and
- Cyanide.

Site-specific RAOs include:

- Protect human health and the environment through the treatment of soil CoCs that exist above their respective Residential PSRGs;

- Minimize further degradation of groundwater quality through treatment of soil CoCs that exist above their respective POG PSRGs; and

- Implement remedial action in accordance with applicable laws and regulations.

The ability of the remedial action to satisfy the aforementioned RAOs is discussed further in Section 2.0.

1.6 REMEDIATION STANDARDS

The future use of the Site is not known; however, unrestricted land use standards for soils are being sought at this time. The September 2015 *Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals Table* (NCDEQ, 2015c) provides the final remediation goals for Site soils, unless otherwise specified at a later date.

In order to identify the final remediation goals for soil at the Site, the site-specific CoCs were listed, along with their respective Residential PSRGs and their respective POG PSRGs (see table below). For nine of the COCs (1,1,1-TCA, 1,1-DCA, PCE, TCE, cis-1,2-DCE, VC, total xylenes, naphthalene, and 1,4-dioxane), their POG PSRGs are less than their corresponding Residential PSRGs by at least an order of magnitude. For these nine constituents, their respective POG PSRGs were identified as the final remediation goals for Site soils.

For the remaining two constituents, ethylbenzene and cyanide, their Residential PSRGs are less than their corresponding POG PSRGs. As a result, their Residential PSRGs were initially identified as the final remediation goals for Site soils. However, according to the NCDEQ REC Guidance, Appendix E.2 (NCDEQ, 2015d), the Residential PSRGs may be adjusted based on the type of health effects each evaluated constituent has and the number of constituents that have each type of health effect (i.e., carcinogenic or non-carcinogenic). In accordance with the NCDEQ REC Guidance, the USEPA RSL table (USEPA, 2015) was reviewed to identify the type of health effects for both ethylbenzene and cyanide. Ethylbenzene has both carcinogenic and non-carcinogenic health effects, however, its Residential PSRG (5.8 mg/kg) is based on its carcinogenic health effects, and this Residential PSRG is several orders of magnitude less than its non-carcinogenic RSL (3,400 mg/kg). Cyanide has only non-carcinogenic health effects. Because cyanide is the only non-carcinogenic Residential PSRG being used as a soil remediation goal for the Site, it can be adjusted from being based on a hazard quotient of 0.2 to being based on a hazard quotient of 1. As a result, the Residential PSRG for cyanide (0.54 mg/kg) listed in the September 2015 IHSB PSRG table (NCDEQ, 2015c) has been multiplied by

5 to derive an Adjusted Residential PSRG for cyanide of 2.7 mg/kg. The Adjusted PSRG will be used as the final remediation goal for cyanide in Site soils.

The following table presents the applicable Site CoCs and their respective PSRGs.

Constituent	Adjusted PSRG (mg/kg)	Residential PSRG (μg/kg)	POG PSRG (μg/kg)
1,1,1-TCA	--------	640,000	1,200
1,1-DCA	--------	3,600	30
PCE	--------	16,000	5
TCE	--------	820	18
cis-1,2-DCE	--------	32,000	360
VC	--------	59	0.19
Ethylbenzene	--------	5,800	8,100
Total Xylenes	--------	130,000	6,000
Naphthalene	--------	3,800	210
1,4-Dioxane	--------	5,300	12
Cyanide	2.7	0.54 mg/kg	14 mg/kg

1.7 MISCELLANEOUS REC REPORT REQUIREMENTS

1.7.1 Submission of Proposed RAP

This Proposed RAP for Site Soils will be submitted to the NCDEQ, REC Program staff within 30 days of certification by the Responsible Party (RP) and the Registered Site Manager (RSM).

1.7.2 Imminent Hazard Requirements

No imminent hazards have been identified by the investigations conducted at this Site.

1.7.3 Off-Site Migration, Sensitive Environments, Mixed Wastes

No off-Site migration of impacted Site soils has occurred. No sensitive environments were identified. No mixed wastes were identified at the Site.

1.7.4 Proposed RAP Certification

The Proposed RAP for Site Soils has been certified in accordance with REC rules (see Section 5.0).

1.7.5 Remedy Requiring Branch Approval

The proposed remedial remedy does not require branch approval.

1.7.6 Public Notice of Proposed RAP

Following submission of the Proposed RAP for Site Soils, the NCDEQ, REC Program staff will submit a draft public notice letter and a mailing list of affected parties. Amec Foster Wheeler will add to the list of affected parties any entities that have expressed an interest in the Site. Amec Foster Wheeler will send the public notice letter to the affected parties via certified mail and indicate that the comment period will end 35 days from the date of the letter. Copies of the certified mail receipts will be provided to the NCDEQ, REC Program staff. At the end of the public comment period, Amec Foster Wheeler will amend the Proposed RAP for Site Soils to address any comments and submit the final Proposed RAP for Site Soils along with the appropriate certification forms to the REC Program staff.

1.7.7 Hazardous Waste Removal from Site

While not anticipated, some hazardous wastes (soils and asphalt) could potentially be generated during implementation of the selected remedial alternative. Those hazardous wastes, considered to be IDW, will be limited and will be containerized and disposed off-Site at an approved hazardous waste disposal facility.

2.0 FEASIBILITY STUDY

The following section identifies and screens available remedial action technologies that may be appropriate for achieving the RAOs identified in Section 1.5 for impacted Site soils. Each of the initially identified technologies was given a general evaluation of applicability and for those that were retained, a secondary screening was conducted based on Site-specific effectiveness, implementability, and relative treatment cost. The objective of the remedial action technology screening process was to focus and ultimately narrow down the list of potentially applicable remedial action technologies for impacted Site soils. Following the screening process, those remedial action technologies that remained were retained for the development and evaluation of remedial action alternatives.

2.1 ESTIMATED AREA AND VOLUME OF IMPACTED SITE SOILS

Based on RI activities and additional 2015 investigation, the estimated areal extent of VOC-impacted soils as shown on **Figure 1.7** is 6,575 ft^2 out of a total Site area of 6.82 acres (297,079 ft^2), which equates to approximately 2% of the total Site area. Of the 6,575 ft^2 of impacted soils, approximately 6,285 ft^2 are located outside of the building. Using the depths of the detected impacts, approximately 850 cubic yards (yd^3), 1,115 yd^3, and 970 yd^3 of impacted soils were identified as shown on **Figures 1.10, 1.11, and 1.12**, respectively. Therefore, an estimated 2,935 yd^3 of VOC-impacted Site soils have been identified based on the RI and 2015 additional soil delineation activities and the subsequent interpolation of the associated SB results. These results show that the VOC-impacted soils identified at the Site are found in both the surface and subsurface soils.

For 1,4-dioxane, which was considered independently of the other Site-related VOCs, all impacted soils (approximately 585 ft^2) were identified outside of the building during 2015 soil delineation activities. Using the depths of the detected impacts, approximately 15 yd^3, 50 yd^3, and 285 yd^3 of 1,4-dioxane-impacted soils were identified as shown on **Figures 1.13, 1.14, and 1.15**, respectively. Therefore, an estimated 350 yd^3 of 1,4-dioxane-impacted Site soils have been identified based on the 2015 additional soil delineation activities and the subsequent interpolation of the associated SB results. Based on these results, the majority of the 1,4-dioxane-impacted soils reside in subsurface soils at 15 to 30 feet bgs.

In addition to developing an Adjusted PSRG for total cyanide, an averaging approach was applied to all total cyanide results from the RI and to all total cyanide results from the July and December 2015 sampling events in accordance with Appendix E, Part E.3 of the REC Program Implementation Guidance (NCDEQ, 2015d). **Figure 2.1** presents the quarter-acre sector used for averaging, and **Table 2.1** presents the total cyanide averaging results by sample depth interval. Per the REC guidance, all total cyanide soil results above its POG PSRG of 14 mg/kg cannot be averaged and must be remediated. These results are highlighted in orange on **Table 2.1**, and the average concentrations shown in the table do not include these orange highlighted concentrations.

As indicated on **Table 2.1**, the average total cyanide concentrations were all below the Adjusted PSRG for total cyanide of 2.7 mg/kg except for the 0.6 to 5 feet bgs depth interval. Based on these results, remediation of the six total cyanide detections within this interval (highlighted in blue) is recommended to meet the total cyanide Adjusted PSRG for this sample depth interval.

2.2 REMEDIAL ACTION TECHNOLOGIES IDENTIFICATION AND SCREENING

An initial screening process was conducted to identify various remediation technologies that were potentially applicable to address impacted Site soils. The initial screening process considered the applicability of each technology based on general Site conditions and the characteristics of the targeted Site-related soil CoCs (i.e., VOCs). Of the 39 technologies initially identified, 22 technologies were retained for secondary screening. **Table 2.2** summarizes the results of this initial screening process.

Subsequently, a secondary evaluation of the 22 technologies that passed the initial screening evaluation was conducted based upon their potential effectiveness and compatibility with Site conditions including, but not limited to, the areal extent and depth of the impacted soils, the ability to implement and construct the technology without interfering with current on-Site operations, and relative cost (low, medium, or high). The overall objective of the secondary screening evaluation process was to further define and narrow down the list of potentially applicable technologies that could be developed into remedial action alternatives for impacted Site soils.

Of the 22 technologies evaluated during secondary screening, 19 were rejected based on one or more of the following reasons.

- The technology was not practical or effective for the area, volume, and/or concentration of impacted soil;
- The technology was not effective or implementable due to Site conditions such as inaccessible areas, steep hillside location, presence of numerous buried utilities in impacted areas, limited space, impacted areas being located next to and/or under the existing facility building, surrounding land use, permitting issues as well as characteristics of the impacted media (e.g., depth to soil contamination, soil permeability, etc.); and/or
- The technology had excessively high cost relative to other equally effective technologies.

A brief description of the 22 technologies that were subjected to secondary screening, their anticipated Site-specific effectiveness, implementability, relative cost, and the basis for their retainment or elimination is provided in **Table 2.3**.

Based on the results of the full screening process, the following remedial action technologies for impacted Site soils were retained for remedial action alternative assembly and further evaluation in Section 2.3:

- Removal via excavation and transport to an approved off-Site disposal facility;
- In-Situ Chemical Oxidation (ISCO) via soil blending and/or injection; and
- Soil Vapor Extraction (SVE).

2.3 REMEDIAL ACTION ALTERNATIVES DEVELOPMENT AND EVALUATION

This section develops, evaluates, and ultimately compares the proposed remedial action alternatives for Site soils. A recommendation for the preferred remedial action alternative for Site soils is subsequently presented. The three technologies retained from the secondary screening process in Section 2.2 were assembled into comprehensive remedial action alternatives, and each was subjected to further evaluation in this section.

During assembly of the remedial action alternatives, it was determined that excavation and ISCO soil blending were not options for subsurface soil (greater than 5 feet bgs). First, portions of the subsurface soils to be remediated are located on the side of a steep hillside or next to the existing facility. Because of the depth required to complete subsurface soil remediation in these areas, extensive shoring and/or sheet piling would be required. Secondly, during the additional soil delineation activities conducted in 2015, a ground penetrating radar (GPR) survey was used to identify utilities. The result of the GPR survey was that an extensive network of buried utilities including water, electric, gas, and sewer lines was identified throughout the areas of impacted subsurface soils requiring remediation. Extensive implementation issues and cost would be associated with completing excavation or ISCO soil blending for subsurface soils. As a result, excavation and ISCO soil blending were maintained as remedial action technologies for surface soils (0 to 5 feet bgs) only.

Because some of the impacted subsurface soil (greater than 5 feet bgs) areas to be remediated are located on the edge of a steep hillside and also because of the presence of numerous utilities, subsurface soil excavation was determined to be impractical and extremely expensive.

The three remedial action alternatives for Site soils that were evaluated include:

- Surface Soil Excavation and Subsurface Soil ISCO Injection and SVE;
- Surface Soil ISCO Blending and Subsurface Soil ISCO Injection and SVE; and
- Surface and Subsurface Soil ISCO Injection and SVE.

For this Proposed RAP, surface soils are defined as existing from 0 to 5 feet bgs, and subsurface soils are defined for all soil depths greater than 5 feet bgs.

2.3.1 Alternatives Evaluation Criteria Description

Eight criteria were used in the evaluation of the aforementioned remedial action alternatives for Site soils. The eight criteria and a description of each are provided below.

2.3.1.1 Overall Protectiveness

Remedial action alternatives must be protective of human health and the environment. Each alternative was assessed to determine whether it could adequately protect human health and the environment, in both the short- and long-term, from unacceptable risks posed by VOCs present in Site soils by eliminating, reducing, or controlling exposure to these constituents. The overall assessment of protection utilized the assessments conducted under other evaluation criteria, in particular, long-term effectiveness and reliability and short-term effectiveness.

2.3.1.2 Compliance with Federal, State, and Local Requirements

Each alternative was evaluated for compliance with primarily State (REC Program) requirements/regulations. However, Federal and Local laws/regulations were also complied with as appropriate.

2.3.1.3 Long-term Effectiveness and Reliability

The long-term effectiveness and reliability criterion evaluated the anticipated ability of the alternatives to maintain reliable protection of human health and the environment over time. Alternatives were assessed for the long-term effectiveness and permanence they afforded with respect to the magnitude of residual risk and the adequacy and reliability of controls used to manage residual constituents (i.e., untreated constituents and/or treatment residuals) over the long-term.

2.3.1.4 Reduction of Volume, Toxicity, and/or Mobility through Treatment

This criterion addressed the anticipated performance of the remedial action alternatives to eliminate, reduce, or control risks to human health and the environment by reducing constituent, volume, toxicity, and/or mobility.

2.3.1.5 Short-Term Effectiveness

The short-term impacts of the implementation period for each of the alternatives were assessed, considering the following factors, as appropriate:

- Short-term risks that might be posed to the community during implementation of the alternative;
- Potential impacts to commercial or remediation workers during remedial action activities and the effectiveness and reliability of protective measures;
- Potential environmental impacts of the remedial action and the effectiveness and reliability of mitigative measures during implementation; and
- Estimated time required to achieve the established Site RAOs.

2.3.1.6 Implementability

The relative ease or difficulty of implementing the remedial action alternatives was assessed by considering the following factors, as appropriate:

- Technical feasibility, including the reliability of the alternative, ease of undertaking additional remedial actions, and ability to monitor the effectiveness of the remedy;
- Administrative feasibility, including activities required to coordinate with other offices and agencies and the ability and time needed to obtain any necessary approvals and permits for Site activities; and
- Availability of necessary goods, services, and materials.

2.3.1.7 Regulatory/Public Acceptance

This criterion addressed each alternative's compliance with applicable regulations and the likelihood of approval by the regulatory agency. Also addressed were any issues and concerns the surrounding community might have regarding the remedial action alternatives and whether the technology(ies) employed by the alternatives had been successfully applied at other Sites with similar constituents and concentrations.

2.3.1.8 Cost

Cost estimates for the remedial action alternatives are presented for comparison purposes only, are order-of-magnitude level, and have an estimated range of accuracy of -30% to +50%. The cost estimates include both capital and operation and maintenance (O&M) costs (if applicable). A cost estimate for each of the three proposed remedial action alternatives is provided in this document.

A description of the three remedial action alternatives and how they would be applied to remediate impacted Site soils is presented in Sections 2.3.2 through 2.3.4.

2.3.2 Alternative S1: Surface Excavation/Subsurface ISCO Injection/SVE

Alternative S1 incorporates excavation of all Site surface soils (0 to 5 feet bgs) impacted with CoCs greater than their respective POG PSRGs and Adjusted PSRG. Because some of the impacted soil areas are located on the edge of a steep hillside and also because of the presence of numerous utilities, subsurface soil excavation (greater than 5 feet bgs) was determined to be impractical and extremely expensive. As such, subsurface soils located outside of the building that are impacted with 1,4-dioxane and cyanide would be treated using ISCO injection while subsurface soils impacted with VOCs would be treated by SVE. Direct ISCO injection would also be used inside of the facility to address subsurface soil impacts. An air quality permit (or exemption) would be required for the SVE treatment system, and an underground injection control (UIC) permit would be required for the ISCO injection component of this alternative. The treatment components of Alternative S1 are shown on **Figure 2.2**.

Initially for this alternative, a private utility contractor would be used to identify all underground utilities in those areas to be remediated prior to conducting any intrusive activities. For the soil excavation activities, mechanized excavation equipment would be utilized to minimize Site workers' direct contact with impacted soils. A backhoe would be used to excavate all impacted soils. Extra care would be required around five monitoring wells (MW-4, MW-4D, MW-5DD, MW-22, and RW-2) that are located within the proposed excavation areas.

Approximately 60 yd^3 of asphalt and concrete located above the excavation areas would be saw cut, removed, and transported to a concrete and demolition (C&D) landfill. An estimated 900 yd^3 of CoC-impacted Site soils would subsequently be excavated and direct loaded into roll off boxes for transportation to an appropriate disposal facility (Subtitle D landfill used for cost estimate).

Confirmation soil sampling for the excavation areas would be conducted in accordance with Appendix C, Part C.2.2 of the REC Program Implementation Guidance (NCDEQ, 2015d). Upon verification of clean confirmation soil samples, clean backfill would be added to the excavations

and compacted in lifts. Asphalt and concrete replacement and demobilization of all heavy equipment would complete the excavation activities for Alternative S1.

It is estimated that it would take 10 days to complete all surface soil excavation activities. An Amec Foster Wheeler staff professional and project professional would provide the primary field oversight and conduct confirmation soil sampling. Additional support would be provided by a senior engineer.

To treat the presence of 1,4-dioxane and cyanide in subsurface soils (greater than 5 feet bgs), up to three ISCO injection events would be conducted. A sodium-catalyzed hydrogen peroxide (H_2O_2) solution would be used to target all areas shown in yellow on **Figure 2.2** including a small area inside of the current facility. An injection trailer specifically designed for ISCO injection would be mobilized to the site to complete the injections. A total of 24 direct-push injection points would be used for the first ISCO injection event. The injection intervals for each of the injection points would be based on the depth of CoC impact and the targeted treatment zone. An on-site water source or nearby Town of Boone fire hydrant would be utilized to prepare the oxidant solution prior to injection.

Because of the presence of relatively low permeability soils at the Site, a total of 13 SVE wells would be installed outside of the building to target VOC-impacted soils. Screen lengths and depths for each SVE well would be based on the depth of CoC impact and the targeted treatment zone. A rental mobile SVE trailer would be located next to the existing Site groundwater remediation system because of its immediate proximity to a power source and its location within a secured compound.

Trenching would be performed to accommodate the installation of underground Schedule 40 polyvinyl chloride (PVC) conveyance piping from the 13 SVE wells to the SVE treatment system trailer. The overlying asphalt and concrete would be saw cut to a width of approximately 18 inches and subsequently removed using a mini-excavator.

An estimated 5 yd^3 of asphalt and concrete debris removed during trenching would be disposed at a C&D landfill. All conveyance piping trenches would be excavated to a depth of approximately 18 to 24 inches bgs into the underlying soil. The excavated soil from the trenches would be placed into a roll off box for disposal pending analytical results. Clean backfill would be brought to the Site to replace the soils removed from the trenches. Following SVE system conveyance piping placement, the trenches would be backfilled with the clean backfill, compacted, and the surface restored to pre-existing conditions.

It is estimated that it would take 6 days to complete all outside and inside ISCO injections for the first ISCO injection event. An Amec Foster Wheeler senior engineer would provide field oversight for the ISCO injection activities. Confirmation soil sampling using a Geoprobe® unit would be conducted approximately two months after the first ISCO injection event. Confirmation soil sampling would be conducted by two Amec Foster Wheeler project personnel with oversight provided by a senior engineer in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDEQ, 2015d). Because of the nature of the site soils (i.e., silts and silty clays) and also the recalcitrance of 1,4-dioxane and cyanide, two additional ISCO injection events that would address increasingly smaller areas of impacted soils and the associated confirmation soil sampling events have been included as part of Alternative S1. A

second ISCO injection event was anticipated to last for 3 days and a third ISCO injection event for 2 days. A senior engineer would again provide oversight for the injection activities and project-level field personnel would conduct confirmation soil sampling for the additional injection events. ISCO activities are anticipated to last for up to 9 months; however, O&M activities will not be required.

For the SVE system, it is estimated that it would take one week to install the 13 SVE wells, two weeks to install the associated conveyance piping, and one week to tie the piping into the mobile SVE trailer, complete site restoration, and conduct start up testing. An Amec Foster Wheeler senior engineer and a staff professional would split oversight duties related to the SVE system installation while a senior engineer and senior technician would conduct start up testing for the SVE system.

SVE activities are anticipated to last for up to 18 months with monthly Site visits by an Amec Foster Wheeler senior technician to conduct SVE system O&M and optimization. Periodic vapor samples will be collected from the SVE system effluent to assist with the determination of when to conduct confirmation soil sampling for VOCs. Confirmation soil sampling would be conducted in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDEQ, 2015d). It was assumed that a time frame of 1.5 years would be required in order to reach site closure. Upon confirmation that all VOC-impacted soils had been treated to below the applicable POG PSRGs, all 13 SVE wells would be abandoned in accordance with applicable regulations. **Table 2.4** presents an opinion of probable costs for Alternative S1.

2.3.3 Alternative S2: Surface ISCO Blending/Subsurface ISCO Injection/SVE

Alternative S2 incorporates ISCO soil blending for all Site surface soils impacted with CoCs greater than their respective POG PSRGs and Adjusted PSRG. Subsurface soils located outside of the building that are impacted with 1,4-dioxane and cyanide would be treated using ISCO injection while subsurface soils impacted with VOCs would be treated by SVE. Direct ISCO injection would also be used inside of the facility to address subsurface soil impacts. An air quality permit (or exemption) would be required for the SVE treatment system, and a UIC permit would be required for the ISCO injection component of this alternative. The treatment components of Alternative S2 are shown on **Figure 2.3**.

Initially for this alternative, a small quantity of soil would be collected prior to on-Site soil blending activities in order to conduct a treatability study to determine the optimal ISCO reagent quantity to use for soil blending. Once completed, on-site ISCO soil blending activities would commence.

For the on-Site ISCO soil blending activities, mechanized equipment would be utilized to minimize Site workers' direct contact with impacted soils. A track hoe would be required to excavate/blend impacted surface soils. Five wells (MW-4, MW-4D, MW-5DD, MW-22, and RW-2) would need to be abandoned to accommodate the soil blending activities. Temporary overhead electric power isolation would also be required because of the presence of high voltage electric lines along the southern edge of several of the proposed ISCO soil blending locations.

Approximately 60 yd^3 of asphalt and concrete would be saw cut, removed, and then transported to a C&D landfill in order to accommodate ISCO soil blending activities. An estimated 900 yd^3 of

CoC-impacted Site soils would subsequently be treated using ISCO soil inversion blending. For the ISCO soil inversion blending process, impacted soils at each ISCO soil blending location would be removed and stockpiled immediately next to the excavation area. The excavated soil would then be replaced in lifts into the excavation. Each lift would be mixed with a soil conditioner and a chemical oxidant. The soil conditioner would be used to transform the low permeability soils into higher permeability soils thereby allowing more uniform and rapid treatment by the ISCO chemicals. Portland cement would also be mixed into each soil lift in order to provide a stable soil matrix following ISCO treatment. A bench-scale treatment study would be required to determine the optimal cement-to-soil mixture ratio.

Confirmation soil sampling for the ISCO soil blending areas would be conducted in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDEQ, 2015d). Upon verification of clean confirmation soil samples, asphalt and concrete replacement would occur. Installation of five replacement wells, restoration of normal electrical power along the southern edge of the property, and demobilization of all heavy equipment would complete the ISCO soil blending activities for Alternative S2.

It is estimated that it would take 10 days to complete all ISCO surface soil blending activities. An Amec Foster Wheeler staff professional and project professional would provide the primary field oversight and conduct confirmation soil sampling. Additional support would be provided by a senior engineer.

For Alternative S2, the treatment of impacted subsurface soils using ISCO injections and SVE would be conducted in the same manner as previously described for Alternative S1 in Section 2.3.2. **Table 2.5** presents an opinion of probable costs for Alternative S2.

2.3.4 Alternative S3: Surface and Subsurface ISCO Injection/SVE

Alternative S3 incorporates surface and subsurface soil ISCO injection combined with SVE for all impacted soils located outside of the building. ISCO injection would be used to address soils impacted with 1,4-dioxane above its POG PSRG as well as soils impacted with total cyanide above its Adjusted PSRG. ISCO injection would also be utilized for a small area of VOC-impacted subsurface soils identified within a small, localized area underneath the building. An air quality permit (or exemption) would be required for the SVE treatment system, and a UIC permit would be required for the ISCO injection component of this alternative. The treatment components of Alternative S3 are shown on **Figure 2.4**.

Initially for this alternative, a private utility contractor would be used to identify all underground utilities in those areas to be remediated prior to conducting any intrusive activities. Similar to Alternatives S1 and S2, 1,4-dioxane- and cyanide-impacted soils located outside of the building would be treated by conducting up to three ISCO injection events. A sodium-catalyzed H_2O_2 solution would be used to target all areas shown in yellow on **Figure 2.4,** including a small area inside of the current facility. An injection trailer specifically designed for ISCO injection would be mobilized to the site to complete the injections. A total of 30 direct-push injection points would be used for the first ISCO injection event. The injection intervals for each of the injection points would be based on the depth of VOC impact and the targeted treatment zone. An on-site water source or nearby Town of Boone fire hydrant would be utilized to prepare the oxidant solution prior to injection.

Because of the presence of relatively low permeability soils at the Site, a total of 13 vertical SVE wells and two horizontal SVE wells would be installed outside of the building to target the VOC-impacted soils. Screen lengths and depths for each vertical SVE well would be based on the depth of CoC impact and the targeted treatment zone. Due to the presence of a relatively large area of VOC-impacted surface soils in the southeastern portion of the site, two horizontal SVE wells would be installed. These two wells would be installed in such a way as to avoid existing utilities and would also eliminate the need to remove and replace approximately 2,000 ft^2 of asphalt if vertical SVE wells were instead installed to treat this same area of impacted soils. A rental mobile SVE trailer would be located next to the existing Site groundwater remediation system because of its immediate proximity to a power source and its location within a secured compound.

Trenching would be performed to accommodate the installation of underground Schedule 40 PVC conveyance piping from the 13 vertical SVE wells and the two horizontal SVE wells to the SVE treatment system trailer. The overlying asphalt and concrete would be saw cut to a width of approximately 18 inches and subsequently removed using a mini-excavator. An estimated 5 yd^3 of asphalt and concrete would be removed during trenching to accommodate the installation of the vertical and horizontal SVE well vaults and the associated conveyance piping.

The removed asphalt and concrete debris would be placed into a roll off box already staged at the Site for subsequent disposal at a C&D landfill. All conveyance piping trenches would be excavated to a depth of approximately 18 to 24 inches bgs into the underlying soil. The excavated soil from the trenches would be placed into a separate roll off box for disposal pending analytical results. Clean backfill would be brought to the Site to replace the soils removed from the trenches. Following SVE system conveyance piping placement, the trenches would be backfilled with the clean backfill, compacted, and the surface restored to pre-existing conditions.

It is estimated that it would take 6 days to complete all outside and inside ISCO injections for the first ISCO injection event. An Amec Foster Wheeler senior engineer would provide the field oversight for the ISCO injection activities. Confirmation soil sampling using a Geoprobe® unit would be conducted approximately two months after the first ISCO injection event. Confirmation soil sampling would be conducted by two Amec Foster Wheeler project personnel with oversight provided by a senior engineer in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDEQ, 2015d). Because of the nature of the site soils (i.e., silts and silty clays) and also the recalcitrance of 1,4-dioxane and cyanide, two additional ISCO injection events that would address increasingly smaller areas of impacted soils and the associated confirmation soil sampling events have been included as part of Alternative S3. A second ISCO injection event was anticipated to last for 3 days and a third ISCO injection event for 2 days. A senior engineer would again provide oversight for the injection activities and project-level field personnel would conduct confirmation soil sampling for the additional injection events. ISCO activities are anticipated to last for up to 9 months; however, O&M activities will not be required.

For the SVE system, it is estimated that it would take two weeks to install the 13 vertical SVE wells and two horizontal SVE wells, two weeks to install the associated conveyance piping, and one week to tie the piping into the mobile SVE trailer, complete site restoration, and conduct start up testing. An Amec Foster Wheeler senior engineer and a staff professional would split

oversight duties related to the SVE system installation while a senior engineer and senior technician would conduct start up testing for the SVE system.

SVE activities are anticipated to last for up to 18 months with monthly Site visits by an Amec Foster Wheeler senior technician to conduct SVE system O&M and optimization. Periodic vapor samples will be collected from the SVE system effluent to assist with the determination of when to conduct confirmation soil sampling for VOCs. Confirmation soil sampling would be conducted in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDEQ, 2015d). It was assumed that a time frame of 1.5 years would be required in order to reach site closure. Upon confirmation that all VOC-impacted soils had been treated to below the applicable POG PSRGs, all vertical and horizontal SVE wells would be abandoned in accordance with applicable regulations. **Table 2.6** presents an opinion of probable costs for Alternative S3.

2.3.5 Comparative Analysis and Remedial Alternative Selection

The three remedial alternatives for Site soils were evaluated against the eight criteria specified in Section 2.3.1. A summary of this comparative evaluation is presented in **Table 2.7**. Based upon the evaluation conducted, Alternative S3: Surface and Subsurface Soil ISCO Injection and SVE was selected as the most effective, readily implementable, and cost effective alternative for achieving the RAOs established in this RAP for impacted Site soils.

3.0 PROPOSED REMEDY

In this section, a conceptual design, justification for its selection, and the activities required to implement Alternative S3 are presented.

3.1 CONCEPTUAL DESIGN FOR PROPOSED REMEDY

Conceptual design elements for Alternative S3 are described in the following subsections.

3.1.1 ISCO Treatment for 1,4-Dioxane and Cyanide

Figure 2.4 shows the locations targeted for ISCO treatment based on the currently understood extent of 1,4-dioxane and cyanide in Site soils. A small area of VOC-impacted soils located underneath the facility in the vicinity of SB-10 and DS-13 will also be treated using ISCO. **Table 3.1** provides preliminary design information for the first ISCO injection event including injection point locations, total number of points per injection location, injection depths, and quantity of oxidant to inject per injection point. A total of 30 direct push injection points and approximately 5,350 gallons of oxidant are proposed to be used for the first ISCO injection event. Due to the presence of VOCs detected inside of the building during the RI, two of the 30 direct push ISCO injection points are proposed to be conducted within the building. Final design details will be provided in the Remedial Action Preconstruction Report (RAPCR) for Site Soils.

3.1.2 SVE Treatment for VOCs

Due the presence of relatively low permeability soils (primarily silts and silty clays) at the Site, the SVE component of proposed Alternative S3 incorporates 13 vertical SVE wells that are screened at varying depths depending on the depth of the detected VOC contamination. The wells will be installed using a hollow stem auger rig. Each well will be composed of 2-inch diameter Schedule 40 PVC risers with 0.010-inch slotted PVC screens. The SVE well screens will be surrounded by sand filter packs and contain bentonite and Portland cement seals above the filter packs to prevent air from short circuiting. All SVE wells will be installed as flush-mount completions.

Due to the presence of a relatively large area of VOC-impacted surface soils in the southeastern portion of the site, two horizontal SVE wells will also be installed for Alternative S3. These two wells will be installed to avoid existing utilities and also to minimize site disruption during installation activities. One well, HSV1, will be installed at a depth of approximately four feet bgs and will contain 120 feet of PVC screen. The other well will be installed initially at a depth of four feet bgs, will contain 100 feet of screen, and will terminated at a depth of approximately ten feet bgs. Both wells will be installed using a directional drilling rig and will be composed of 3-inch diameter Schedule 40 PVC risers with 0.010-inch slotted PVC screens.

Figure 2.4 shows the proposed locations of the vertical and horizontal SVE wells based on the currently understood extent of VOC contamination. The location of the SVE treatment system next to an existing power source and within a fenced compound is also shown. **Figure 3.1** shows profile views for the two SVE horizontal wells.

The conceptual design for the SVE system assumes a 15-foot area of influence for each vertical SVE well targeting surface soils and a 20-foot area of influence for each vertical SVE well

targeting subsurface soils. A horizontal influence of 15 feet is anticipated for the horizontal SVE wells. These areas of influence are based on experience at Sites with similar soil types. The SVE well screen intervals and estimated flow rates in standard cubic foot per minute (scfm) are shown in the table below.

SVE Well	Screen Interval (feet)	Flow (scfm)
SV1 through SV2	5 to 15	2*3
SV3 through SV4	16 to 26	2*3
SV5	20 to 30	3
SV6 through SV8	3 to 8	3*2
SV9 through SV11	7 to 17	3*3
SV12	15 to 25	3
SV13	17 to 27	3
HSV1	5 to 125	24
HSV2	5 to 105	20
Total Flow (scfm)		**80**

Experience with SVE treatment systems installed in similar silty soils has determined that air flow from vertical wells typically range between 0.1 and 0.5 scfm per foot of well screen at an applied vacuum of 30 to 80 inches of water. In fine silts and clays, the flows can be less.

Allowing for additional pressure losses through the manifolds, valves, vapor-liquid separator, and inlet filters, a vacuum blower with a capacity of 90 scfm at 135 inches of water vacuum should be sufficient. If soils prove to be tighter than anticipated, the selected SVE system will be capable of inlet vacuum levels up to 272 inches of water. Based on this flow and vacuum requirement, a rotary claw blower will be necessary to meet the aforementioned SVE treatment system capacity requirements. Final design details will be provided in the RAPCR for Site Soils.

3.2 JUSTIFICATION OF SELECTED REMEDY

The proposed remedy (Alternative S3) was developed from the feasibility study conducted in Section 2.0 and includes treatment of Site soils impacted with VOCs and 1,4-dioxane above their respective POG PSRGs and the treatment of Site soils impacted with cyanide above its Adjusted PSRG. Site soils that contain VOCs above their respective POG PSRGs within the building will be treated by ISCO injection while Site soils that contain VOCs outside of the building will be treated using SVE. Site soils that contain 1,4-dioxane and cyanide are all located outside of the building and will be treated using targeted ISCO injection. Both technologies (SVE and ISCO) satisfy the preference for treatment and justify the selected remedy.

3.3 PROPOSED RAP ACTIVITIES

The activities listed below are required to implement the proposed remedial action for Site soils. Additional soil remediation details and a schedule of activities are provided in Section 4.0.

3.3.1 Regulatory Requirements and Design and Procurement Activities

The following activities and milestones are mandated by the REC Program rules (15A NCAC 13C sections .0300 - .0308).

- Proposed RAP for Site Soils Submission
- Public Review and Comment
- Proposed RAP for Site Soils Publication and Completion Certification
- UIC Permit
- Air Quality Permit (or exemption)
- RAPCR for Site Soils and Remedial Design Completion Certification
- Procurement
  - Utility Locator
  - Driller
  - Horizontal SVE well drilling
  - ISCO Contractor
  - General Contractor (SVE system conveyance piping installation)
  - SVE Treatment System
  - Electrical Contractor
  - IDW Transport and Disposal
  - Analytical Laboratory
- Remedial Action Construction Completion Report and Certification
- Remedial Action Completion Certification

3.3.2 Public Review Comments

The final Proposed RAP for Site Soils will address comments received during the public review of the Proposed RAP for Site Soils (if any).

3.3.3 Full Scale Implementation

Full-scale implementation tasks will include:

- ISCO Injection Inside of Building
  - Utilities location;
  - Two direct push oxidant injections; and
  - Borehole abandonment.

- ISCO Injection Outside of Building
  - Utilities location;
  - 30 direct push oxidant injections (additional injection events may be necessary); and
  - Borehole abandonment.

- SVE System Installation and Start Up
  - Utilities location;
  - Asphalt/concrete saw cutting and removal;
  - Installation of 13 vertical SVE wells;
  - Vertical SVE well completions (flush-mount in asphalt/concrete);
  - Installation of 2 horizontal SVE wells;
  - Horizontal SVE well completions (two flush-mount piping connection vaults in asphalt);
  - Management and disposal of SVE well drill cuttings;

- Trenching for SVE conveyance piping installation;
- Installation of SVE conveyance piping within trenches;
- Backfilling and compaction of SVE trenches;
- Asphalt/concrete replacement;
- Rental SVE trailer system delivery and installation;
- Electric hook up to SVE trailer system;
- SVE start up and troubleshooting; and
- O&M

3.3.4 Operation and Maintenance

There are no O&M activities associated with the ISCO portion of Alternative S3. However, after completion of the installation activities for the SVE treatment system, the following O&M activities will be conducted for the SVE system for the duration of active remediation:

- Monthly monitoring and repair of SVE system equipment;
- Monthly flow adjustment and SVE treatment system optimization; and
- Quarterly monitoring of influent and exhaust concentrations via FID and analytical laboratory sample collection.

3.3.5 Active Remediation Transition Events

Completion of active remediation will occur when the following occurs:

- ISCO
  - Confirmation soil sampling indicates that remaining Site soils are below the applicable POG PSRGs for VOCs and 1,4-dioxane and also below the Adjusted PSRG for cyanide. Multiple injection events may be required.
- SVE System
  - Individual SVE well shutdown, equilibration, and restart;
  - Permanent shutdown of individual SVE wells;
  - SVE system shutdown; and
  - Confirmatory soil sampling indicates that remaining Site soils are below the applicable POG PSRGs for VOCs.

3.3.6 SVE Treatment System Decommissioning and Abandonment

At the completion of soil remediation activities, the following will be conducted to return the Site to normal use:

- Proper abandonment of 13 vertical SVE wells and two horizontal SVE wells located outside of the building;
- Demobilization of rental SVE treatment system and termination of utility connection; and
- Ground surface restoration as necessary.

4.0 REMEDY IMPLEMENTATION

In this section, implementation activities for proposed remedial Alternative S3 are described.

4.1 PROPOSED RAP PROCEDURES AND SCHEDULE

Activities required for execution of this Proposed RAP for Site soils are provided in the following subsections, including ISCO injection, SVE system construction, SVE system O&M, ISCO and SVE system monitoring and performance evaluation, and reporting. A proposed implementation schedule of remedial activities for Site soils is provided in **Table 4.1**.

Soil sampling procedures and IDW management procedures were included in the RI Work Plan and are incorporated by reference herein.

4.1.1 ISCO Injection

The preliminary ISCO design includes oxidant injection at 30 locations at varying depths depending on the depth of the targeted contamination. **Figure 2.4** shows the proposed locations for ISCO treatment based on the currently known extent of 1,4-dioxane and cyanide contamination. The ISCO conceptual design assumes a 5- to 8-foot area of influence for each ISCO injection point. **Table 3.1** provides pertinent information for the first proposed ISCO injection event.

4.1.2 SVE System Construction

The SVE system includes 13 vertical wells screened at varying depths depending on the depth of VOC contamination detected during the RI. Due to the presence of a relatively large area of VOC-impacted surface soils in the southeastern portion of the site, two horizontal SVE wells will also be installed. **Figure 2.4** shows the proposed locations of the vertical and horizontal SVE wells based on the currently known extent of VOC contamination. The location of the SVE treatment system is also shown next to the existing groundwater remediation system.

The rental SVE treatment system will be a fully enclosed, tow-behind, trailer-mounted unit that is mobilized to the Site and located next to the existing groundwater remediation system building. The SVE unit will be levelled and secured in place. Power to the SVE system will be provided from an existing electrical source (30 Kilovolt-amps [kVA], 480 Volts [V], 100 amps) with a dedicated electric usage meter. A 30kVA, 480/208 V transformer with disconnect will be required to transition from the existing electrical source to the SVE trailer electric.

The SVE design assumes a 15-foot area of influence for each vertical SVE well targeting surface soils and a 20-foot area of influence for each vertical SVE well targeting subsurface soils. A horizontal influence of 15 feet is anticipated for the horizontal SVE wells. These areas of influence are based on experience at Sites with similar soil type. SVE well dimensions are provided in the table on the following page.

SVE Well	Screen Interval (feet)	Bentonite Interval (feet)	Grout Interval (feet)
SV1 - SV2	5 to 15	3 to 5	1 to 3
SV3 - SV4	16 to 26	14 to 16	1 to 14
SV5	20 to 30	18 to 20	1 to 18
SV6 - SV8	3 to 8	2 to 3	1 to 2
SV9 - SV11	7 to 17	5 to 7	1 to 5
SV12	15 to 25	13 to 15	1 to 13
SV13	17 to 27	15 to 17	1 to 15
HSV1	5 to 125	------	0 to 4
HSV2	5 to 100	------	0 to 4

The 13 vertical SVE wells (SV1 through SV13) will be drilled by conventional hollow-stem auger in 6-inch diameter boreholes. The wells will be constructed of 2-inch Schedule 40 PVC risers with 0.010-inch slotted screen. A 20/40 sieve silica filter sand will be used around the screened intervals with a bentonite seal placed above. A Portland cement grout will be used to complete the well above the bentonite seal. All SVE vertical wells will be flush-mount completions.

The two horizontal SVE wells (HSV1 and HSV2) will be drilled using horizontal DPT blind drilling methods. The well risers and screens will be constructed with 3-inch diameter PVC directly installed in the native soil. Horizontal DPT drilling will commence from two separate push-pits that will later be converted to piping connection vaults. Both vaults will be flush-mount completions. The depth at which the two horizontal SVE wells will be installed is shown on **Figure 3.1**.

Trenching will be performed to accommodate the installation of underground Schedule 40 PVC conveyance piping from the 13 vertical SVE wells and two horizontal SVE wells to the SVE treatment system trailer. The overlying asphalt and concrete would be saw cut to a width of approximately 18 inches and subsequently removed using a mini-excavator. An estimated 5 yd^3 of asphalt and concrete will be removed during trenching to accommodate the installation of the vertical and horizontal SVE well vaults and the associated conveyance piping.

Each trench will be excavated to a depth of approximately 18 to 24 inches bgs. Following the placement of the SVE system conveyance piping, all trenches will be backfilled with clean backfill, compacted, and the surface restored to pre-existing conditions. The 13 vertical SVE wells will be divided into two branches, and each horizontal SVE well will comprise its own branch for a total of four branches. The four branches will be connected to the SVE trailer via a manifold and header system.

The SVE treatment system components will include:

- SVE blower capable of providing an inlet vacuum of 135 inches of water at a flow rate of 90 scfm (Rietschle C-VLR300, rotary claw blower or equivalent). While the design operating point is conceptually at 135 inches of water and -90 scfm, the blower is capable of achieving 272 inches of water vacuum (20 inches of mercury) if deemed beneficial in later stages of treatment;
- 3-inch manifold with four 3-inch branches;

- Each 3-inch leg to include ball valve, vacuum gauge, sample port, and flow indicator
- Moisture separator with vacuum relief valve;
- Particulate filter for moisture separator;
- Progressive cavity pump to transfer liquid from moisture separator;
- High liquid level switch (separator);
- High discharge pressure switch;
- Discharge silencer;
- Vacuum gauges on the moisture separator inlet and blower inlet;
- Pressure gauges on the blower outlet;
- Air flow meters on the SVE blower exhaust and on each SVE inlet branch;
- Temperature gauge on the SVE blower exhaust;
- Ambient air dilution valve between moisture separator and particulate filter;
- Valved sample port (lab cock or equivalent) on blower outlet and on each SVE inlet branch; and
- Controls, interlocks, and alarms as follows:
  - Switch for manual and automatic equipment operation modes;
  - Adjustable low inlet vacuum switch on moisture separator inlet to generate alarm;
  - Moisture separator high liquid level switch to shut off blower and generate alarm;
  - High vacuum switch on blower inlet to shut off blower and generate alarm;
  - High temperature interlock on blower outlet to shut off blower and generate alarm;
  - Blower run time totalizer; and
  - Remote telemetry system

4.1.3 Operation and Maintenance

SVE treatment is estimated to be conducted for 12 to 18 months. Monthly O&M and optimization will be conducted by a trained Amec Foster Wheeler senior technician. Air typically flows preferentially through more permeable sand lenses and less preferentially through tighter silts and clays. After extraction of the initial pore volumes, VOC mass removal occurs by desorption from soils and diffusion from the less permeable soil strata to the preferential pathways. **Table 4.2** includes SVE system monitoring parameters. SVE influent VOC concentrations will be measured quarterly using an FID and an influent air sample will be submitted for laboratory analysis by USEPA Method TO-15 for the Site-specific VOC CoCs.

Eventually, influent air concentrations will decline and VOC mass removal rates will approach zero. As VOC concentrations in each branch of the SVE system approach a zero parts per million (ppm) FID reading, SVE vacuum to the affected branch will be shut off for a period of soil vapor equilibration. During the next O&M Site visit, the branch will be re-started and an FID measurement will be collected within 30 minutes of restart. If vapor concentrations have rebounded, SVE from the branch will continue. If no rebound is noted, SVE from the branch may be terminated in order to provide increased capacity for the remaining more contaminated branches of the SVE system.

4.1.4 ISCO and SVE System Monitoring and Performance Evaluation

ISCO performance monitoring activities will not be conducted following an ISCO injection event. A confirmation soil sampling event will be scheduled approximately two months after the injection event (**Table 4.2**). Confirmation soil sampling activities for the ISCO treatment areas are described in Section 4.2.

For each quarterly monitoring event, SVE contaminant removal will be calculated using the system airflow readings and the average influent concentrations from the current and previous events. When VOC vapor concentrations asymptotically approach zero ppm as measured on an FID, the shutdown of individual SVE wells, individual SVE well branches, or the entire SVE system for a period of soil vapor equilibration will occur. During restart of the individual wells, individual well branches, or the SVE system, FID measurements of the influent gas concentration will be conducted. Once the measured restart VOC vapor concentrations and the associated influent gas samples sent to the analytical laboratory remain low or non-detect for the SVE treatment area, confirmation soil sampling will be conducted. Confirmatory soil sampling activities for the SVE treatment area are described in Section 4.2.

4.1.5 Progress Reports

Quarterly RAPRs will be generated for the duration of active soils remediation. The RAPRs will include a summary of ISCO injection activities, SVE system O&M activities (including O&M logs), the results of performance monitoring data (including the associated analytical laboratory reports), conclusions, and recommended optimization activities.

Upon confirmation that all 1,4-dioxane- and cyanide-impacted soils have been treated to below the applicable POG PSRG and Adjusted PSRG, ISCO activities will be terminated. Upon confirmation that all VOC-impacted soils have been treated to below the applicable POG PSRGs, the 13 vertical SVE wells and two horizontal SVE wells will be abandoned in accordance with applicable Federal and State regulations.

4.2 PROPOSED RAP COMPLETION CRITERIA

Impacted Site soils will be remediated using ISCO and SVE. Approximately two months following an ISCO injection event, confirmation soil sampling will be conducted in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDEQ, 2015d). If the concentrations of the Site-related CoCs in each of the confirmation soil samples collected are below their respective POG PSRGs and Alternate PSRG, then the remediation of impacted soils within the ISCO treatment areas will be considered complete. If the concentration of the Site-related CoCs remain elevated in any of the confirmation soils samples collected within the ISCO treatment areas, then a second ISCO injection event will occur. Targeted ISCO injection will only occur in those areas where the exceedance(s) occurred. Another round of confirmation soil sampling for the affected area(s) will be conducted after an additional two months. Because of the recalcitrance of 1,4-dioxane and cyanide, a third ISCO injection and confirmation soil sampling event may also be conducted if necessary. The final confirmation soil sampling plan for the ISCO treatment areas will be presented in the RAPCR for Site Soils.

Once the influent gas samples collected from the SVE system become asymptotic and FID readings are consistently at or near 0 ppm, confirmation soil sampling for VOCs will be

conducted. Confirmation soil sampling will be conducted in accordance with Appendix C, Part C.2.1 of the REC Program Implementation Guidance (NCDENR, 2015d). If the concentration of the Site-related VOCs remain elevated in any of the confirmation soils samples collected within the SVE treatment areas, then targeted operation of those SVE wells in the vicinity of the exceedance(s) will be conducted. Another round of confirmation soil sampling for the affected area(s) will be conducted after additional FID readings and/or vapor sampling of the influent gas indicate low or non-detect results. Once the concentrations of the Site-related VOCs in each of the confirmation soil samples collected are below their respective POG PSRGs, then the remediation of VOC-impacted soils will be considered complete. The SVE system will subsequently be decommissioned, and all vertical and horizontal SVE wells will be properly abandoned. The final confirmation soil sampling plan for VOCs will be presented in the RAPCRSS.

4.3 COMMUNITY HEALTH AND SAFETY PLAN

The community health and safety plan developed for the RI will be applicable and appropriate for this Proposed RAP for Site Soils. Additions to the existing health and safety plan to address proposed ISCO injections and SVE treatment activities will be made prior to implementation of remediation activities at the Site.

At a minimum, all remediation field personnel will be required to be 40-hour HAZWOPER-trained and wear the following protective equipment:

- Hard-hats;
- Steel-toed safety boots;
- Safety glasses;
- Latex gloves (as necessary); and
- Hearing protection (e.g., ear plugs when necessary).

Any additional protective equipment and procedures that are required for soils remediation will be described in separate Job Hazard Analyses.

4.4 DECONTAMINATION PROCEDURES

Decontamination procedures have previously been established in the RI Work Plan and are incorporated by reference herein. Soil sampling procedures and IDW management procedures were included in the RI Work Plan and are incorporated by reference herein.

5.0 PROPOSED RAP CERTIFICATION AND COMPLETION STATEMENTS

5.1 RP AND RSM CERTIFICATION OF RAP

RP and RSM document certification statements are included in **Appendix A**. Following completion of the public comment period and assuming that no comments are received, the Proposed RAP Completion Statement will be submitted to the REC Program Staff. If comments are received, then RP and RSM document certification statements will be included as an appendix to the revised Proposed RAP for Site Soils.

5.2 PROPOSED RAP COMPLETION STATEMENT

Although not included with this Proposed RAP for Site Soils, once the public comment period is completed and assuming no comments are received, the Proposed RAP Completion Certification statement will be submitted to the REC Program staff. If comments are received, then the Proposed RAP for Site Soils will be revised, and the Proposed RAP Completion Certification statement will be included as an appendix to the revised Proposed RAP for Site Soils. The Proposed RAP Completion Statement will include RP and RSM document certification statements.

6.0 SUMMARY AND CONCLUSION OF PROPOSED RAP

6.1 SUMMARY OF PROPOSED RAP

Remedial action includes the in situ treatment of impacted Site soils. The key elements of soil remediation at this Site include:

- ISCO treatment of 1,4-dioxane- and cyanide-impacted surface and subsurface soils that contain concentrations above their respective POG PSRG and Adjusted PSRG;
- ISCO treatment of a small localized area of VOCs in subsurface soils that exceed their POG PSRGs underneath the building; and
- SVE treatment of VOC-impacted surface and subsurface soils that contain concentrations above their respective POG PSRGs.

6.2 CONCLUSIONS

The RI and additional soil sampling activities conducted in 2015 have determined that soils and groundwater have been impacted by releases of Site-related CoCs during historical facility operations. Soils at the Site have primarily been impacted by releases of VOCs located outside of the facility; minor impact by releases of VOCs within the facility was also documented. In addition, Site soils have also been impacted by 1,4-dioxane and cyanide but to a much lesser extent than VOCs. Groundwater impacted by VOCs, 1,4-dioxane, and cyanide is currently being addressed under a separate Proposed RAP for Site Groundwater (Amec Foster Wheeler, 2013b). Site sediments and surface water do not require remediation.

The combination of technologies presented as Remedial Alternative S3 was determined to be the most effective, readily implementable, and cost effective remedial alternative to address impacted Site soils. Based on the feasibility study conducted in this Proposed RAP for Site Soils, ISCO injection was selected for the treatment of surface (0 to 5 feet bgs) and subsurface (greater than five feet bgs) soils impacted by 1,4-dioxane and cyanide located outside of the facility and by VOCs located underneath the building. SVE treatment was selected for the treatment of surface and subsurface soils impacted by VOCs outside of the building. Both of these technologies have been successfully used to remediate soils contaminated with similar CoCs at other Sites.

7.0 REFERENCES

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TABLES

TABLE 1.1

Summary of Additional Cyanide Soil Delineation Results - July 30-31, 2015
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Analysis	RESIDENTIAL PSRG (mg/kg)	POG PSRG (mg/kg)	SB-16A-10 (mg/kg)	SB-16A-13 (mg/kg)	SB-30A-0.5 (mg/kg)	SB-42A-14 (mg/kg)	SB-42B-14 (mg/kg)	SB-42C-14 (mg/kg)	SB-42D-14 (mg/kg)	SB-42E-14 (mg/kg)	SB-42A-17 (mg/kg)	SB-44A-18 (mg/kg)	SB-44A-21 (mg/kg)
Thiocyanate	3.2*	----	< 1.2	< 1.4	< 1.2UJ	< 1.3	< 1.3	<2.4	< 1.4	< 1.3	<1.2UJ	<2.5	< 1.3
Total Cyanide	0.54	14	**13.6**	<0.26	**2.0**	**2.1**	*0.25J*	**1.3**	**4.3**	**53.3**	*0.30J*	**43.1**	**12.7**
Free Cyanide	**	----	<3.0	**0.97**	*0.9J*	*1.8J*	**0.94**	**1.1**	**6.1**	*3.2J*	***0.95***	**1.2**	**1.1**
Cyanide (no free cyanide)	3.2***	----	**10.6**	----	1.1	*0.3*	----	0.2	----	**50.1**	----	**41.9**	**11.6**
% Moisture	----	----	18.0	26.8	19.4	26.4	22.3	16.1	26.8	22.5	13.3	20.7	21.0

Analysis			SB-16A-10 (mg/L)	SB-16A-13 (mg/L)	SB-30A-0.5 (mg/L)	SB-42A-14 (mg/L)	SB-42B-14 (mg/L)	SB-42C-14 (mg/L)	SB-42D-14 (mg/L)	SB-42E-14 (mg/L)	SB-42A-17 (mg/L)	SB-44A-18 (mg/L)	SB-44A-21 (mg/L)
SPLP-Total Cyanide	----	----	NA	0.00068	NA	NA	0.034	0.18	0.20	3.3	0.0032	NA	0.24

Notes:
* The Residential PSRG for thiocyanate was eliminated in September 2015.
** If the free cyanide result is greater than total cyanide result, then the free cyanide result is used and compared to the total cyanide Residential PSRG.
*** If the free cyanide result is less than the total cyanide result, the free cyanide result is subtracted from the total cyanide result and compared to the Cyanide (no free cyanide) Residential PSRG.
NA = not analyzed
NCDEQ = North Carolina Department of Environmental Quality
PSRG = Preliminary Soil Remediation Goal (NCDEQ, September 2015)
POG-PSRG = Protection of Groundwater Preliminary Soil Remediation Goal (September 2015)
SPLP = synthetic precipitate leaching procedure
mg/kg = micrograms per kilogram
mg/L = milligrams per liter
Bold numbers indicate a detection above the laboratory Reporting Limit (RL).
Italic numbers indicate an estimated concentration between the laboratory Method Detection Limit (MDL) and RL (i.e., "J" Flag)
U = Not detected, value is the MDL
J = Value is estimated
Orange shaded and bolded values are above the POG PSRG.
Green shaded and bolded values are above the applicable Residential PSRG.

Prepared by/Date: TSR 01/22/16
Checked by/Date: LLM 01/25/16

TABLE 1.2

Summary of Additional Cyanide Soil Delineation Results - December 14-15, 2015
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Analysis	RESIDENTIAL PSRG (mg/kg)	POG PSRG (mg/kg)	SB-17A-5 (mg/kg)	SB-17A-10 (mg/kg)	SB-17A-15 (mg/kg)	SB-20A-0.5 (mg/kg)	SB-20A-5 (mg/kg)	SB-20A-10 (mg/kg)	SB-20B-5 (mg/kg)	SB-20C-5 (mg/kg)
Total Cyanide	0.54	14	**3.8**	*0.18J*	<0.37	*0.29J*	***0.69J***	<0.30	**4.4**	**7.3**
Free Cyanide	*	----	**7.0**	***1.4***	**1.3**	**0.57**	**0.59**	<0.52	**1.6**	**2.1**
Cyanide (no free cyanide)	3.2**	----	----	----	----	----	**0.10**	----	**2.8**	**5.2**
% Moisture	----	----	18.8	11.4	15.0	11.7	14.7	5.1	15.8	18.0

Analysis	RESIDENTIAL PSRG (mg/kg)	POG PSRG (mg/kg)	SB-46A-15 (mg/kg)	SB-46A-20 (mg/kg)	SB-48A-0.5 (mg/kg)	SB-48A-5 (mg/kg)	SB-48B-0.5 (mg/kg)	SB-48C-0.5 (mg/kg)	SB-48D-0.5 (mg/kg)
Total Cyanide	0.54	14	**1.3**	0.78	**0.38**	**7.7**	**0.38**	**0.32**	**1.0**
Free Cyanide	*	----	**1.8**	**3.3**	<0.54	**1.4**	*0.56J*	*0.33J*	*0.35J*
Cyanide (no free cyanide)	3.2**	----	----	----	----	**6.3**	----	----	0.65
% Moisture	----	----	17.3	21.9	7.4	16.5	13.9	11.8	14.3

Notes:
* If the free cyanide result is greater than total cyanide result, then the free cyanide result is used and compared to the total cyanide Residential PSRG.
** If the free cyanide result is less than the total cyanide result, the free cyanide result is subtracted from the total cyanide result and compared to the Cyanide (no free cyanide) Residential PSRG.
NCDEQ = North Carolina Department of Environmental Quality
PSRG = Preliminary Soil Remediation Goal (NCDEQ, September 2015)
POG-PSRG = Protection of Groundwater Preliminary Soil Remediation Goal (September 2015)
mg/kg = micrograms per kilogram
Bold numbers indicate a detection above the laboratory Reporting Limit (RL).
Italic numbers indicate an estimated concentration between the laboratory Method Detection Limit (MDL) and RL (i.e., "J" Flag)
J = Value is estimated
Green shaded and bolded values are above the applicable Residential PSRG.

Prepared by/Date: TSR 01/22/16
Checked by/Date: LLM 02/17/16

TABLE 1.3

Summary of Additonal Delineation Results for VOCs in Site Soils - 2015
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project: 6251121001.03.01

Sample ID			**DS-1**	**DS-1**	**DS-1**	**DS-3**	**DS-3**	**DS-3**	**DS-4A**	**DS-4A**	**DS-4A**	**DS-5**	**DS-6**	**DS-7**	**DS-7**	**DS-10**	**DS-10**	**DS-10**	**DS-10**	**DS-13**	**DS-13**
Depth (feet bgs)			**18-20**	**23-25**	**28-30**	**18-20**	**23-25**	**28-30**	**18-20**	**23-25**	**28-30**	**18-20**	**23-25**	**8-10**	**13-15**	**0-2**	**3-5**	**8-10**	**13-15**	**0-2**	**3-5**
Collection Date			**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**
Constituent	**Residential PSRG[1]**	**POG PSRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
1,1-Dichloroethane	3,600	30	<5.1	<5.4	<5.9	<5.3	<5.9	<6.0	<5.4	<5.3	<4.9	<5.8	<8.0	<7.8	<6.6	<5.4	<4.9	<5.4	<3.3	<5.5	<6.6
cis-1,2-Dichloroethene	32,000	360	<5.1	*3.5J*	<5.9	*3.1J*	<5.9	<6.0	<5.4	*1.6J*	**32.8**	<5.8	<8.0	<7.8	<6.6	<5.4	<4.9	<5.4	*1.2J*	<5.5	<6.6
1,4-Dioxane	5,300	12	<154	<162	<176	<160	<178	<161	<161	<160	<146	<173	<241	<233	<198	<163	<148	<163	<100	<165	<197
Ethylbenzene	5,800	8,100	<5.1	<5.4	<5.9	<5.3	<5.9	<6.0	<5.4	<5.3	<4.9	<5.8	<8.0	<7.8	<6.6	<5.4	<4.9	<5.4	<3.3	<5.5	<6.6
Naphthalene	3,800	210	<5.1	<5.4	<5.9	<5.3	<5.9	<6.0	<5.4	<5.3	<4.9	<5.8	<8.0	<7.8	<6.6	<5.4	<4.9	<5.4	<3.3	<5.5	<6.6
Tetrachloroethene	16,000	5	**11.6**	**45.7**	<5.9	<5.3	<5.9	<6.0	<5.4	<5.3	<4.9	<5.8	<8.0	<7.8	<6.6	<5.4	*1.7J*	<5.4	**11.1**	*4.7J*	<6.6
1,1,1-Trichloroethane	640,000	1,200	<5.1	<5.4	<5.9	<5.3	<5.9	<6.0	<5.4	<5.3	<4.9	<5.8	<8.0	<7.8	<6.6	<5.4	<4.9	<5.4	<3.3	<5.5	<6.6
Trichloroethene	820	18	<5.1	**9.3**	<5.9	<5.3	<5.9	<6.0	<5.4	*4.0J*	<4.9	<5.8	<8.0	<7.8	<6.6	<5.4	<4.9	<5.4	*2.1J*	<5.5	<6.6
Vinyl chloride	59	0.19	<10.3	<10.8	<11.7	<10.7	<11.8	<12.0	<10.8	<10.7	<9.7	<11.5	<16.1	<15.5	<13.2	<10.9	<9.9	<10.9	<6.7	<11.0	<13.1
Total Xylenes	130,000	6,000	<10.3	<10.8	<11.7	<10.7	<11.8	<12.0	<10.8	<10.7	<9.7	<11.5	<16.1	<15.5	<13.2	<10.9	<9.9	<10.9	<6.7	<11.0	<13.1

Sample ID			**DS-13**	**DS-13**	**DS-14**	**DS-14**	**DS-14**	**DS-14**	**DS-16**	**DS-16**	**DS-16**	**DS-17**	**DS-17**	**DS-17**	**DS-19A**	**DS-19A**	**DS-19A**	**DS-19A**	**DS-19A**	**DS-19A**	**DS-19A**
Depth (feet bgs)			**8-10**	**13-15**	**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**	**18-20**	**23-25**	**28-30**	**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**
Collection Date			**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/19/15**	**10/20/15**	**10/20/15**	**10/20/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**
Constituent	**Residential PSRG[1]**	**POG PSRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
1,1-Dichloroethane	3,600	30	<5.9	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	*2.7J*	<6.1	<5.7	<5.5	<5.8	<5.9	<5.7
cis-1,2-Dichloroethene	32,000	360	<5.9	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	<4.8	<6.1	<5.7	<5.5	<5.8	*2.4J*	<5.7
1,4-Dioxane	5,300	12	<176	<156	<143	<176	<201	<194	<195	<175	<162	<199	<172	<174	<9.7	<10.3	<11.0	**24.9**	**48.9**	**206**	**175**
Ethylbenzene	5,800	8,100	<5.9	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	<4.8	<6.1	<5.7	<5.5	<5.8	<5.9	<5.7
Naphthalene	3,800	210	<5.9	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	<4.8	<6.1	<5.7	<5.5	<5.8	<5.9	<5.7
Tetrachloroethene	16,000	5	**6.0**	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	**7.3**	<6.1	**16.4**	<5.5	<5.8	<5.9	<5.7
1,1,1-Trichloroethane	640,000	1,200	<5.9	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	**11.2**	<6.1	<5.7	<5.5	<5.8	<5.9	<5.7
Trichloroethene	820	18	*2.9J*	<5.2	<4.8	<5.9	<6.7	<6.5	<6.5	<5.8	<5.4	<6.6	<5.7	<5.8	<4.8	<6.1	<5.7	<5.5	<5.8	<5.9	<5.7
Vinyl chloride	59	0.19	<11.7	<10.4	<9.5	<11.7	<13.4	<12.9	<13.0	<11.7	<10.8	<13.2	<11.4	<11.6	<9.5	<12.2	<11.4	<11.0	<11.5	<11.7	<11.3
Total Xylenes	130,000	6,000	<11.7	<10.4	<9.5	<11.7	<13.4	<12.9	<13.0	<11.7	<10.8	<13.2	<11.4	<11.6	<9.5	<12.2	<11.4	<11.0	<11.5	<11.7	<11.3

Notes:

1 = Concentrations based on Inactive Hazardous Sites Branch PSRGs Table (NCDEQ, September 2015).
Constituent list is limited to those compounds with at least one detectable concentration above their respective POG PSRG.
feet bgs = feet below ground surface
J = Estimated concentration above the method detection limit and below the reporting limit.
H = Possibly biased high
IHSB = Inactive Hazardous Sites Branch
NCDEQ = North Carolina Department of Environmental Quality
PSRG = Preliminary Soil Remediation Goals
POG = Protection of Groundwater
µg/kg= micrograms per kilogram
Bold = Concentration detected above the Reporting Limit
Bolded concentration inside of green highlighted cells indicate exceedance of POG PSRG value.
Bolded concentration inside of blue highlighted cells indicate exceedance of Residential PSRG value.

Prepared By/Date: LLM 02/17/16
Checked By/Date: ZJD 02/17/16

TABLE 1.3

Summary of Additonal Delineation Results for VOCs in Site Soils - 2015
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project: 6251121001.03.01

Sample ID			**DS-20**	**DS-20**	**DS-20**	**DS-20**	**DS-20**	**DS-20**	**DS-20**	**DS-20A**	**DS-20A**	**DS-20A**	**DS-20A**	**DS-20A**	**DS-20A**	**DS-20A**	**DS-21**	**DS-21**	**DS-22**	**DS-22**
Depth (feet bgs)			**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**	**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**	**0-2**	**3-5**	**8-10**	**13-15**
Collection Date			**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**
Constituent	**Residential PSRG[1]**	**POG PSRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
1,1-Dichloroethane	3,600	30	*2.3J*	<5.5	<6.9	<6.7	<5.6	<6.5	<5.0	**46.6**	<5.6	***38.6JH***	<6.2	<5.9	<6.3	<5.4	<6.9	<8.5	<6.1	<5.4
cis-1,2-Dichloroethene	32,000	360	*1.6J*	<5.5	<6.9	<6.7	<5.6	<6.5	*2.9J*	**66.0**	<5.6	***41.5JH***	<6.2	<5.9	*2.8J*	<5.4	<6.9	<8.5	<6.1	<5.4
1,4-Dioxane	5,300	12	<158	<166	<207	<200	<169	**348**	**488**	<11.5	<11.2	<13.5	**14.6**	**22.2**	**47.0**	**134**	<206	<255	<183	<163
Ethylbenzene	5,800	8,100	**5.8**	<5.5	<6.9	<6.7	<5.6	<6.5	<5.0	<6.1	<5.6	<6.9	<6.2	<5.9	<6.3	<5.4	<6.9	<8.5	<6.1	<5.4
Naphthalene	3,800	210	<5.3	<5.5	<6.9	<6.7	<5.6	<6.5	<5.0	<6.1	<5.6	<6.9	<6.2	<5.9	<6.3	<5.4	<6.9	<8.5	<6.1	<5.4
Tetrachloroethene	16,000	5	*2.8J*	<5.5	<6.9	<6.7	*4.8J*	<6.5	<5.0	**29.7**	<5.6	**2,990**	<6.2	<5.9	<6.3	<5.4	<6.9	*3.1J*	<6.1	<5.4
1,1,1-Trichloroethane	640,000	1,200	<5.3	<5.5	<6.9	<6.7	<5.6	<6.5	<5.0	**23.1**	<5.6	**58.5**	<6.2	<5.9	<6.3	<5.4	<6.9	<8.5	<6.1	<5.4
Trichloroethene	820	18	<5.3	<5.5	<6.9	<6.7	<5.6	<6.5	<5.0	*4.5J*	<5.6	***120JH***	<6.2	<5.9	<6.3	<5.4	<6.9	<8.5	<6.1	<5.4
Vinyl chloride	59	0.19	<10.5	<11.0	<13.8	<13.3	<11.3	<13.0	<10	<12.2	<11.3	<13.9	<12.4	<11.8	<12.7	<10.8	<13.7	<17.0	<12.2	<10.9
Total Xylenes	130,000	6,000	**43.2**	<11.0	<13.8	<13.3	<11.3	<13.0	<10	<12.2	<11.3	<13.9	<12.4	<11.8	<12.7	<10.8	<13.7	<17.0	<12.2	<10.9

Sample ID			**DS-23**	**DS-23**	**DS-24**	**DS-24**	**DS-25A**	**DS-25A**	**DS-25A**	**DS-25A**	**DS-25A**	**DS-25A**	**DS-25A**	**DS-26**	**DS-26**	**DS-26**	**DS-26**	**DS-26**	**DS-26**	**DS-26**
Depth (feet bgs)			**0-2**	**3-5**	**0-2**	**3-5**	**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**	**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**
Collection Date			**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**	**10/20/15**
Constituent	**Residential PSRG[1]**	**POG PSRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
1,1-Dichloroethane	3,600	30	<6.6	<6.0	<6.9	<6.3	**2,750**	***33.1J***	**193**	<1140	<6.3	<5.6	<6.6	<4.9	*4.0J*	<5.0	<4.2	<4.7	<6.1	<5.2
cis-1,2-Dichloroethene	32,000	360	<6.6	<6.0	<6.9	<6.3	**91.7**	*2.3J*	**620**	**1,670**	*3.1J*	<5.6	<6.6	<4.9	**5.8**	<5.0	<4.2	*1.6J*	<6.1	<5.2
1,4-Dioxane	5,300	12	<198	<180	<206	<188	<15	**65.6**	<447	<296	**20.8**	**76.4**	**142**	<146	<136	<150	<125	<142	<182	<156
Ethylbenzene	5,800	8,100	<6.6	<6.0	<6.9	<6.3	<6.3	<5.6	**1,370**	<1140	<6.3	<5.6	<6.6	*1.9J*	<4.5	<5.0	<4.2	<4.7	<6.1	<5.2
Naphthalene	3,800	210	<6.6	<6.0	<6.9	<6.3	<6.3	<5.6	*75.7J*	<1140	<6.3	<5.6	<6.6	<4.9	<4.5	<5.0	<4.2	<4.7	<6.1	<5.2
Tetrachloroethene	16,000	5	<6.6	<6.0	<6.9	<6.3	**3,550**	***134J***	**201**	**15,300**	<6.3	<5.6	<6.6	<4.9	**28.1**	*2.7J*	<4.2	<4.7	<6.1	<5.2
1,1,1-Trichloroethane	640,000	1,200	<6.6	<6.0	<6.9	<6.3	**2,920**	**9.8**	<134	<1140	<6.3	<5.6	<6.6	<4.9	*1.9J*	<5.0	<4.2	<4.7	<6.1	<5.2
Trichloroethene	820	18	<6.6	<6.0	<6.9	<6.3	**43.0**	<5.6	<134	<1140	<6.3	<5.6	<6.6	<4.9	*2.3J*	<5.0	<4.2	<4.7	<6.1	<5.2
Vinyl chloride	59	0.19	<13.2	<12.0	<13.8	<12.5	<12.7	<11.1	<268	<2280	<12.6	<11.3	<13.1	<9.8	<9.1	<10	<8.3	<9.5	<12.2	<10.4
Total Xylenes	130,000	6,000	<13.2	<12.0	<13.8	<12.5	<12.7	<11.1	**8,430**	<2280	<12.6	<11.3	<13.1	<9.8	<9.1	<10	<8.3	<9.5	<12.2	<10.4

Notes:
1 = Concentrations based on Inactive Hazardous Sites Branch PSRGs Table (NCDEQ, September 2015).
Constituent list is limited to those compounds with at least one detectable concentration above their respective POG PSRG.
feet bgs = feet below ground surface
J = Estimated concentration above the method detection limit and below the reporting limit.
H = Possibly biased high
IHSB = Inactive Hazardous Sites Branch
NCDEQ = North Carolina Department of Environmental Quality
PSRG = Preliminary Soil Remediation Goals
POG = Protection of Groundwater
µg/kg= micrograms per kilogram
Bold = Concentration detected above the Reporting Limit
Bolded concentration inside of green highlighted cells indicate exceedance of POG PSRG value.
Bolded concentration inside of blue highlighted cells indicate exceedance of Residential PSRG value.

Prepared By/Date: LLM 02/17/16
Checked By/Date: ZJD 02/17/16

TABLE 1.3

Summary of Additonal Delineation Results for VOCs in Site Soils - 2015
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project: 6251121001.03.01

Sample ID			DS-27	DS-27	DS-27	DS-27	DS-28	DS-28	DS-28	DS-28	DS-28	DS-28	DS-28	DS-28A	DS-28A	DS-28A	DS-28A	DS-28A	DS-28A	DS-28A	DS-28A	DS-31	DS-31
Depth (feet bgs)			0-2	3-5	8-10	13-15	0-2	3-5	8-10	13-15	18-20	23-25	28-30	0-2	3-5	8-10	13-15	18-20	23-25	28-30	30-32	8-10	13-15
Collection Date			10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	10/20/15	12/14/15	12/14/15	12/14/15	12/14/15	12/14/15	12/14/15	12/14/15	12/14/15	10/20/15	10/20/15
Constituent	Residential PSRG[1]	POG PSRG[1]	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
1,1-Dichloroethane	3,600	30	<4.9	<5.4	<5.8	<5.5	<4.9	<4.8	**635**	<166	<5.4	<7.9	<6.3	**51.8**	<5.9	<1510	**663**	**8.1**	*2.1J*	<5.6	<5.9	<6.6	<7.6
cis-1,2-Dichloroethene	32,000	360	<4.9	<5.4	<5.8	<5.5	*1.7J*	<4.8	**846**	<166	<5.4	<7.9	<6.3	**41.6**	<5.9	<1510	*369J*	**20.2**	*5.6J*	<5.6	<5.9	<6.6	*4.2J*
1,4-Dioxane	5,300	12	<146	<161	<174	<165	<148	<144	<7,930	<4,970	<163	<238	<189	<8.9	<13.0	<302	<230	**212**	**203**	**96.7**	<296	<197	<228
Ethylbenzene	5,800	8,100	<4.9	<5.4	<5.8	<5.5	<4.9	<4.8	**28,400**	**282**	<5.4	<7.9	<6.3	<5.1	<5.9	**27,900**	**7,920**	*2.0J*	<6.0	<5.6	**63.5**	<6.6	<7.6
Naphthalene	3,800	210	<4.9	<5.4	<5.8	<5.5	<4.9	<4.8	**1,420**	***48.1J***	<5.4	<7.9	<6.3	<5.1	<5.9	***1,430J***	<573	<5.4	<6.0	<5.6	*4.6J*	<6.6	<7.6
Tetrachloroethene	16,000	5	*4.0J*	<5.4	<5.8	<5.5	*2.7J*	<4.8	<264	<166	<5.4	<7.9	<6.3	**10.7**	<5.9	<1510	*<573*	**8,000**	<6.0	<5.6	<5.9	*2.5J*	<7.6
1,1,1-Trichloroethane	640,000	1,200	<4.9	<5.4	<5.8	<5.5	<4.9	<4.8	<264	<166	<5.4	<7.9	<6.3	**164**	<5.9	<1510	<573	**9.7**	<6.0	<5.6	<5.9	<6.6	<7.6
Trichloroethene	820	18	<4.9	<5.4	<5.8	<5.5	<4.9	<4.8	***120J***	<166	<5.4	<7.9	<6.3	*2.9J*	<5.9	<1510	<573	**67.8**	<6.0	<5.6	<5.9	<6.6	<7.6
Vinyl chloride	59	0.19	<9.7	<10.7	<11.6	<11.0	<9.8	<9.6	<529	<331	<10.8	<15.8	<12.6	<10.3	<11.8	<3020	<1150	<10.7	<12.1	<11.2	<11.7	<13.1	<15.2
Total Xylenes	130,000	6,000	<9.7	<10.7	<11.6	<11.0	<9.8	<9.6	**211,000**	**2,150**	<10.8	<15.8	<12.6	<10.3	<11.8	**159,000**	**51,800**	**11.0**	<12.1	<11.2	**433**	<13.1	<15.2

Sample ID			DS-33	DS-33	DS-34	DS-34	DS-36A	DS-36B	DS-36B	DS-36B	DS-37	DS-37	DS-37	DS-38	DS-38	DS-38	DS-38	DS-38	DS-39	DS-39	DS-39	DS-39	DS-39
Depth (feet bgs)			8-10	13-15	8-10	13-15	23-25	13-15	18-20	23-25	18-20	23-25	28-30	0-2	3-5	18-20	23-25	28-30	0-2	3-5	18-20	23-25	28-30
Collection Date			10/20/15	10/20/15	10/20/15	10/20/15	10/21/15	12/15/15	12/15/15	12/15/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15	10/21/15
Constituent	Residential PSRG[1]	POG PSRG[1]	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
1,1-Dichloroethane	3,600	30	<5.8	<5.2	<6.0	<6.8	<6.5	*2.3J*	<5.1	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	<7.1	<5.3	<5.8	<5.7	<5.5	**8.0**	**47.9**	<5.4
cis-1,2-Dichloroethene	32,000	360	<5.8	<5.2	<6.0	<6.8	<6.5	*3.9J*	*1.5J*	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	***15J***	<5.3	<5.8	<5.7	<5.5	*4.6J*	**12.3**	<5.4
1,4-Dioxane	5,300	12	<174	<155	<179	<205	<196	<169	<152	<175	<179	<193	<189	<214	<170	<214	<160	<174	<171	<165	<159	<133	<161
Ethylbenzene	5,800	8,100	<5.8	<5.2	<6.0	<6.8	<6.5	<5.6	<5.1	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	<7.1	<5.3	<5.8	<5.7	<5.5	<5.3	<4.4	<5.4
Naphthalene	3,800	210	<5.8	<5.2	<6.0	<6.8	<6.5	<5.6	<5.1	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	<7.1	<5.3	<5.8	<5.7	<5.5	<5.3	<4.4	<5.4
Tetrachloroethene	16,000	5	<5.8	*2.6J*	<6.0	<6.8	<6.5	*1.9J*	<5.1	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	***31.6J***	<5.3	<5.8	***8J***	<5.5	<5.3	*2.3J*	<5.4
1,1,1-Trichloroethane	640,000	1,200	<5.8	<5.2	<6.0	<6.8	<6.5	<5.6	<5.1	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	<7.1	<5.3	<5.8	<5.7	<5.5	<5.3	**57.2**	<5.4
Trichloroethene	820	18	<5.8	<5.2	<6.0	<6.8	<6.5	<5.6	<5.1	<5.8	<6.0	<6.4	<6.3	<5.5	<5.7	**7.6**	<5.3	<5.8	<5.7	<5.5	<5.3	<4.4	<5.4
Vinyl chloride	59	0.19	<11.6	<10.3	<11.9	<13.7	<13.1	<11.2	<10.1	<11.6	<11.9	<12.9	<12.6	<11.1	<11.3	<14.3	<10.7	<11.6	<11.4	<11.0	<10.6	***4.9J***	<10.7
Total Xylenes	130,000	6,000	<11.6	<10.3	<11.9	<13.7	<13.1	<11.2	<10.1	<11.6	<11.9	<12.9	<12.6	<11.1	<11.3	<14.3	<10.7	<11.6	<11.4	<11.0	<10.6	**19.2**	<10.7

Notes:
1 = Concentrations based on Inactive Hazardous Sites Branch PSRGs Table (NCDEQ, September 2015).
Constituent list is limited to those compounds with at least one detectable concentration above their respective POG PSRG.
feet bgs = feet below ground surface
J = Estimated concentration above the method detection limit and below the reporting limit.
H = Possibly biased high
IHSB = Inactive Hazardous Sites Branch
NCDEQ = North Carolina Department of Environmental Quality
PSRG = Preliminary Soil Remediation Goals
POG = Protection of Groundwater
µg/kg= micrograms per kilogram
Bold = Concentration detected above the Reporting Limit
Bolded concentration inside of green highlighted cells indicate exceedance of POG PSRG value.
Bolded concentration inside of blue highlighted cells indicate exceedance of Residential PSRG value.

Prepared By/Date: LLM 02/17/16
Checked By/Date: ZJD 02/17/16

TABLE 1.3

Summary of Additonal Delineation Results for VOCs in Site Soils - 2015
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project: 6251121001.03.01

Sample ID			**DS-39A**	**DS-39A**	**DS-39A**	**DS-39A**	**DS-39A**	**DS-39A**	**DS-39A**	**DS-40**	**DS-40**	**DS-41A**	**DS-41A**	**DS-42**	**DS-42**	**DS-43**	**DS-43**	**DS-44A**	**DS-44A**	**DS-44A**	**DS-45**	**DS-45**	**DS-46**	**DS-46**	**DS-47**	**DS-47**
Depth (feet bgs)			**0-2**	**3-5**	**8-10**	**13-15**	**18-20**	**23-25**	**28-30**	**0-2**	**3-5**	**0-2**	**3-5**	**0-2**	**3-5**	**0-2**	**3-5**	**0-2**	**3-5**	**8-10**	**0-2**	**3-5**	**0-2**	**3-5**	**0-2**	**3-5**
Collection Date			**12/15/15**	**12/15/15**	**12/15/15**	**12/15/15**	**12/15/15**	**12/15/15**	**12/15/15**	**10/21/15**	**10/21/15**	**12/15/15**	**12/15/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**12/15/15**	**12/15/15**	**12/15/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**
Constituent	**Residential PSRG[1]**	**POG PSRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
1,1-Dichloroethane	3,600	30	**54.2**	<5.2	*4.5J*	**8.0**	<5.7	<5.9	<6.5	<5.0	<5.5	*2.7J*	<5.6	<8.7	<6.6	<4.7	<5.4	<138	<6.0	<4.9	<6.1	<5.3	<4.4	<5.6	**8.7**	<9.0
cis-1,2-Dichloroethene	32,000	360	**518**	<5.2	**24.5**	**23.7**	*3.8J*	*3.9J*	<6.5	***4.0J***	**9.8**	**54.0**	**35.9**	<8.7	<6.6	<4.7	<5.4	**486**	**52.8**	*3.8J*	<6.1	<5.3	<4.4	<5.6	**20.4**	<9.0
1,4-Dioxane	5,300	12	<152	<155	<151	<135	<170	<178	<194	<149	<164	<182	<169	<260	<197	<141	<161	<4130	<180	<148	<182	<160	<133	<167	<209	<270
Ethylbenzene	5,800	8,100	<5.1	<5.2	<5.0	**5.7**	<5.7	<5.9	<6.5	<5.0	<5.5	<6.1	<5.6	<8.7	<6.6	<4.7	<5.4	<138	<6.0	<4.9	<6.1	<5.3	<4.4	<5.6	<7.0	<9.0
Naphthalene	3,800	210	<5.1	<5.2	<5.0	<4.5	<5.7	<5.9	<6.5	<5.0	<5.5	<6.1	<5.6	<8.7	<6.6	<4.7	<5.4	<138	<6.0	<4.9	<6.1	<5.3	<4.4	<5.6	*2.3J*	<9.0
Tetrachloroethene	16,000	5	**6.6**	*4.3J*	*1.9J*	*1.6J*	<5.7	<5.9	<6.5	<5.0	<5.5	**33.7**	**46.8**	<8.7	<6.6	<4.7	<5.4	***50.4J***	**9.9**	*2.7J*	**8.6**	<5.3	<4.4	<5.6	**7.6**	<9.0
1,1,1-Trichloroethane	640,000	1,200	**11.1**	<5.2	<5.0	<4.5	<5.7	<5.9	<6.5	<5.0	<5.5	<6.1	*2.2J*	<8.7	<6.6	<4.7	<5.4	<138	<6.0	<4.9	<6.1	<5.3	<4.4	<5.6	**7.7**	<9.0
Trichloroethene	820	18	*2.8J*	<5.2	<5.0	<4.5	<5.7	<5.9	<6.5	<5.0	*4.3J*	**9.2**	**17.4**	<8.7	<6.6	<4.7	<5.4	**382**	**75.1**	**6.4**	<6.1	<5.3	<4.4	<5.6	<7.0	<9.0
Vinyl chloride	59	0.19	<10.1	<10.3	<10.1	<9.0	<11.3	<11.9	<12.9	<9.9	<10.9	<12.1	<11.3	<17.3	<13.1	<9.4	<10.7	<275	<12.0	<9.9	<12.2	<10.6	<8.9	<11.1	<13.9	<18.0
Total Xylenes	130,000	6,000	<10.1	<10.3	<10.1	**10.6**	<11.3	<11.9	<12.9	<9.9	<10.9	<12.1	<11.3	<17.3	<13.1	<9.4	<10.7	<275	<12.0	<9.9	<12.2	<10.6	<8.9	<11.1	<13.9	<18.0

Sample ID			**DS-48**	**DS-48**	**DS-49**	**DS-49**	**DS-49**	**DS-49**	**DS-50**	**DS-50**	**DS-50**	**DS-50**	**DS-51**	**DS-51**	**DS-51**	**DS-51**	**DS-52**	**DS-52**	**DS-52**	**DS-52**	**DS-53**	**DS-53**	**DS-53**	**DS-53**
Depth (feet bgs)			**0-2**	**3-5**	**0-2**	**3-5**	**8-10**	**13-15**	**0-2**	**3-5**	**8-10**	**13-15**	**0-2**	**3-5**	**8-10**	**13-15**	**0-2**	**3-5**	**8-10**	**13-15**	**0-2**	**3-5**	**8-10**	**13-15**
Collection Date			**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**10/21/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**	**12/14/15**
Constituent	**Residential PSRG[1]**	**POG PSRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
1,1-Dichloroethane	3,600	30	<4.9	<4.3	<5.1	<6.4	<5.9	<5.8	*2.3J*	<8.0	<9.2	<7.6	<5.1	<5.7	<5.9	<5.8	**6.9**	<6.4	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
cis-1,2-Dichloroethene	32,000	360	<4.9	<4.3	<5.1	*2.6J*	<5.9	<5.8	**7.7**	<8.0	<9.2	<7.6	<5.1	<5.7	<5.9	<5.8	**1,790**	*3.6JH*	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
1,4-Dioxane	5,300	12	<147	<128	<154	<192	<177	<174	<165	<240	<277	<228	<152	<170	<176	<175	<181	<192	<173	<159	<198	<190	<197	<189
Ethylbenzene	5,800	8,100	<4.9	<4.3	<5.1	<6.4	<5.9	<5.8	<5.5	<8.0	<9.2	<7.6	<5.1	<5.7	<5.9	<5.8	<6.0	<6.4	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
Naphthalene	3,800	210	<4.9	<4.3	<5.1	<6.4	<5.9	<5.8	<5.5	<8.0	<9.2	<7.6	<5.1	<5.7	<5.9	<5.8	<6.0	<6.4	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
Tetrachloroethene	16,000	5	*1.7J*	<4.3	<5.1	<6.4	<5.9	<5.8	**7.5**	**29.0**	**72.4**	<7.6	<5.1	<5.7	<5.9	<5.8	*3.4J*	<6.4	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
1,1,1-Trichloroethane	640,000	1,200	<4.9	<4.3	<5.1	<6.4	<5.9	<5.8	<5.5	<8.0	<9.2	<7.6	<5.1	<5.7	<5.9	<5.8	**27.2**	<6.4	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
Trichloroethene	820	18	<4.9	<4.3	*2.3J*	**13.4**	<5.9	<5.8	<5.5	*6.1J*	**17.4**	<7.6	<5.1	<5.7	<5.9	<5.8	**7.3**	<6.4	<5.8	<5.3	<6.6	<6.3	<6.6	<6.3
Vinyl chloride	59	0.19	<9.8	<8.3	<10.3	<12.8	<11.8	<11.6	<11.0	<16.0	<18.5	<15.2	<10.1	<11.3	<11.7	<1.6	<12.1	<12.8	<11.5	<10.6	<13.2	<12.7	<13.1	<12.6
Total Xylenes	130,000	6,000	<9.8	<8.3	<10.3	<12.8	<11.8	<11.6	<11.0	<16.0	<18.5	<15.2	<10.1	<11.3	<11.7	<11.6	<12.1	<12.8	<11.5	<10.6	<13.2	<12.7	<13.1	<12.6

Notes:
1 = Concentrations based on Inactive Hazardous Sites Branch PSRGs Table (NCDEQ, September 2015).
Constituent list is limited to those compounds with at least one detectable concentration above their respective POG PSRG.
feet bgs = feet below ground surface
J = Estimated concentration above the method detection limit and below the reporting limit.
H = Possibly biased high
IHSB = Inactive Hazardous Sites Branch
NCDEQ = North Carolina Department of Environmental Quality
PSRG = Preliminary Soil Remediation Goals
POG = Protection of Groundwater
µg/kg= micrograms per kilogram
Bold = Concentration detected above the Reporting Limit
Bolded concentration inside of green highlighted cells indicate exceedance of POG PSRG value.
Bolded concentration inside of blue highlighted cells indicate exceedance of Residential PSRG value.

Prepared By/Date: LLM 02/17/16
Checked By/Date: ZJD 02/17/16

TABLE 1.4

Summary of Additional Surface Water and Groundwater Analytical Results
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Surface Water				
Well ID	**Date**	**Units**	**Free Cyanide**	**Total Cyanide**
NCAC 2B			0.005	NE
SW-5	6/25/15	mg/L	<0.005	*0.0043J*

Groundwater				
NCAC 2L			0.070	NE
MW-4	6/25/15	mg/L	**0.173**	**0.18**
MW-12D	6/25/15	mg/L	**0.018**	**0.023**

Notes:
NCAC 2B = North Carolina Administrative Code 2B Standards
NCAC 2L = North Carolina Administrative Code 2L Standards
mg/L = milligrams per liter
NE = Not Established
Bold values indicate detections above the laboratory RL.
Italic values indicate estimated concentrations below the laboratory Reporting Limit and Method DetectionLimit (J Flag).
Bold Red Values Exceed NCAC 2L Standard.

Prepared By/Date: TSR 10/14/15
Checked By/Date: GWW 10/29/15

TABLE 2.1
Summary of Total Cyanide Laboratory Analtyical Results - Constituent Averaging
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Sample Depth (feet bgs)	Soil Boring Identification																																		Average Concentration
	SB-16	SB-16A	SB-17	SB-17A	SB-18	SB-19	SB-20	SB-20A	SB-20B	SB-20C	SB-30	SB-30A	SB-31	SB-32	SB-42	SB-42A	SB-42B	SB-42C	SB-42D	SB-42E	SB-43	SB-44	SB-44A	SB-45	SB-46	SB-46A	SB-47	SB-48	SB-48A	SB-48B	SB-48C	SB-48D	SB-49	MW-12D	
0.5	**0.58**		**0.58**		**0.34**	0.10	**0.37**	*0.29*			**9.1**	**2.0**	**0.28**	0.17	**0.75**						**0.16**	**0.18**		**0.23**	**0.28**		**0.26**	**7.9**	**0.38**	**0.38**	**0.32**	**1.0**	**0.58**		**1.2**
0.6 to 5				**3.8**			**8**	**0.69**	**4.4**	**7.3**																			**7.7**						**5.3**
6 to 10	**50.5**	**13.6**	**2.6**	*0.18*		0.10		0.15													**0.25**							**0.13**					0.12		**2.1**
11 to 15		0.13		0.19	**0.17**		0.097				**0.21**			0.21	**89.5**	**2.1**	*0.25*	**1.3**	**4.3**	**53.3**						**1.3**									**0.9**
16 to 20	0.11					0.12							0.16			*0.30*						**23.3**	**43.1**	**0.49**	**1.4**	**0.78**	**0.15**	0.12						**0.20**	**0.4**
21 to 25			0.13		0.11										**2.1**								**12.7**		**0.29**								0.12		**2.6**
26 to 30											0.13										**0.54**														**0.3**
31 to 35														0.17										**0.41**			0.16								**0.2**
36 to 40													**0.17**									**0.12**													**0.1**

Notes:
feet bgs = feet below ground surface
Concentrations reported in milligrams per kilogram (mg/kg)
Bold values represent detections above the laboratory Reporting Limit (RL)
Italic values represent estimated concentrations between the laboratory RL and Method Detection Limit (MDL)
Red values represent non-detect results. Number shown is laboratory MDL.
Total cyanide concentration exceeds its Protection of Groundwater Preliminary Soil Remediation Goal of 14 mg/kg. These locations require remediation and the associated total cyanide results are not included in the Average Concentration calculation.
Alternate Preliminary Soil Remediation Goal for Cyanide = 2.7 mg/kg.
Total cyanide average concentration exceeds its Alternative Preliminary Soil Remediation Goal (PSRG) of 2.7 mg/kg.
Total cyanide concentration that requires remediation to achieve the Alternative PSRG.

Prepared By/Date: TSR 02/01/16
Checked By/Date: ZJD 02/02/16

TABLE 2.2

Initial Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Description	Retain? (Y or N)	Screening Rationale
No Action/Institutional Controls	No Action	No Action	No Action	N	Does not achieve RAOs.
	Institutional Controls	Deed Restrictions	Limits future land usage	Y	Potential Application.
		Access Restrictions	Construct Fencing, Proper Signage	Y	Potential Application.
Containment	Capping	Asphalt/Concrete	Asphalt and/or concrete installed over contaminated areas	Y	Potential Application.
	Vertical Barriers	Grout injection	Subsurface barriers to deter migration of contaminants	N	Does not achieve RAO.
Ex-Situ Treatment / Removal	Removal	Excavation	Direct removal of contaminated soil for subsequent onsite or offsite treatment/disposal	Y	Potential Application for all soil COCs.
	Ex-Situ Biological	Biopiles	Excavated soils are mixed with amendments and enclosed. The piles may be aerated with blowers to promote biodegradation.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
		Fungal Biodegredation	Use of fungus (white rot) on excavated soils to degrade organic contaminants.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
		Land Farming	The periodic mixing of soils to aerate the contaminants to promote biodegredation.	N	Chlorinated organics are resistant to aerobic degradation. Insufficient area at site for land farming.
		Slurry Phase Biotreatment	Mixing contaminated soils with water to create a slurry. Slurry is fed to a reactor to be suspended with microorganisms and subsequently decomposed.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
	Ex-Situ Chemical	Chemical Extraction	Application of an organic solvent, solvent mixture, or acid to extract contaminants from soil.	N	Not effective in clay or silty soil.
		Dehalogenation	Application of heat and specific compounds which promote decomposition.	N	Potential Application for chlorinated VOCs but not for fuel-related VOCs, 1,4-dioxane, and cyanide.
		Chemical Oxidation / Reduction	Application of oxidizing/reducing agents to promote a chemical reaction to convert soil contaminants to less toxic forms.	Y	Potential Application for all soil COCs.

See key at end of table

TABLE 2.2

Initial Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Description	Retain? (Y or N)	Screening Rationale
Ex-Situ Treatment / Removal (continued)	Ex-Situ Physical	Physical Separation / Reduction	Separation of soils by grain-size using sieves and screens. Contaminants will bind to fines for subsequent disposal or treatment.	N	Site is comprised of silts and clays with contaminants dispersed throughout. Large-scale reduction by physical separation not likely.
		Soil Washing	Scrubbing of soils with water/surfactants to dissolve contaminants.	Y	Potential Application for VOCs and 1,4-dioxane but not for cyanide.
		Soil Vapor Extraction	Applying a vacuum to excavated soils to enhance volatilization and removal of VOCs.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
	Ex-Situ Stabilization / Solidification	Encapsulation with Activated Carbon	Physically binding contaminants to form a stabilized mass. Carbon added for organic stabilization.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
		Vitrification	Applying heat to solid media to achieve glassification to encapsulate inorganics. Pyrolysis may also be achieved simultaneously.	N	Not Applicable for Site COCs.
	Ex-Situ Thermal	Pyrolysis	Applying heat in absence of oxygen to decompose organics.	Y	Potential Application for all Site COCs.
		Open Burn	Destruction of flammable or explosive materials by direct deflagration.	N	Not Applicable for high flash-point halogenated organic contaminants.
		Incineration	Volatilization and combustion of organics with high temperatures (870 to 1200 ^{o}C).	Y	Potential Application for VOCs.
		Low Temperature Thermal Oxidation	Two stage thermal process using steam to first remove contaminants from the soil and then higher temperatures for ultimate destruction.	N	VOCs readily desorb at lower temperatures rendering high temperatures unnecessary.
		High Temperature Thermal Desorption	Transfer of contaminants to vapor phase by applying heat at 320 to 560 ^{o}C	N	VOCs readily desorb at lower temperatures.
		Low Temperature Thermal Desorption	Transfer of contaminants to vapor phase by applying heat at 90 to 320 ^{o}C	Y	Potential Application for VOCs and 1,4-dioxane.
		Calcination	Thermal process to remove contaminants from fine soil particles using a horizontal kiln.	N	VOCs and 1,4-dioxane desorb at lower temperatures.
In-Situ Treatment	Natural Attenuation	Natural Attenuation	Monitoring of natural subsurface processes such as volatilization, degradation, dilution, and chemical reaction.	Y	Potential Application.

See key at end of table

TABLE 2.2

Initial Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Description	Retain? (Y or N)	Screening Rationale
In-Situ Treatment (continued)	In-Situ Biological	Bioventing	Providing additional oxygen and/or other gaseous substrate to subsurface to stimulate oxidation or reduction.	Y	Chlorinated VOCs can be degraded anaerobically/aerobically. 1,4-dioxane can be degraded using aerobic cometabolism. Not applicable for cyanide.
		Bioaugmentation	Degradation of contaminants by enhancing natural biodegradation process of indigenous organisms or inoculated organisms.	Y	Potential Application for VOCs and 1,4-dioxane but not for cyanide.
		Phytoremediation	Use of plants to remove, transfer, or destroy contaminants in soil or water.	N	Impacted soil located in high vehicular traffic area and beneath building. Depth to contaminants is too deep at certain locations.
	In-Situ Chemical	Chemical Oxidation or Reduction	Application of oxidizing or reducing agents to promote a chemical reaction to convert contaminants to less toxic forms.	Y	Potential Application for all soil COCs.
	In-Situ Physical	Pneumatic Fracturing	Enhancement mechanism for in situ treatment by creating new fractures and fissures and by enlarging existing ones.	Y	Potential Application for all soil COCs.
		Electro-Kinetic Separation	Application of direct current to soils. Ionized contaminants will move to electrodes.	N	Changes in pH and oxidation state near electrodes can mobilize other naturally-occuring toxic inorganics. Creates a secondary waste stream.
		Soil Flushing	Injection of extraction fluids through the soil to mobilize contaminants to the groundwater. This must be coupled with an extraction well system to remove the contaminants from the aquifer.	N	Not applicable for silty and clayey soils.
		Soil Vapor Extraction	Applying a vacuum to vadose zone to enhance volatilization and remove targeted VOCs.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
	In-Situ Thermal	Enhanced Soil Vapor Extraction	Raising subsurface temperature to aid in removal of VOCs and 1,4-dioxane by employing SVE.	N	VOCs readily desorb at lower temperatures. May or may not work for 1,4-dioxane. Not applicable for cyanide.
		Vitrification	Application of heat to the subsurface to glassify contaminated soil. Organics may undergo pyrolysis simultaneously.	N	Potential damage to building and associated utilities.

See key at end of table

TABLE 2.2

Initial Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Description	Retain? (Y or N)	Screening Rationale
In-Situ Treatment (continued)	In-Situ Stabilization / Solidification	Cement-Based Deep Mixing	Immobilization of contaminants by injecting immobilizing agents to the subsurface.	Y	Potential Application for VOCs but not for 1,4-dioxane and cyanide.
	In-Situ Stabilization / Solidification (continued)	Dynamic Compaction	Consolidating contaminated soil by dropping weights onto surface to reduce hydraulic conductivity.	N	Does not achieve RAOs.
		Grout Injection	Injection of grout into the subsurface area of contamination. This serves as an in-situ encapsulation method.	N	Grout does not immobilize VOCs and can mobilize chromium due to increased pH. Does not achieve RAOs.

Key:
COCs = Constituents of Concern
RAP = Remedial Action Plan
RAOs = Remedial Action Objectives
SVE = Soil Vapor Extraction
VOCs = Volatile Organic Compounds
N = Technology/Process Option not retained for secondary screening.
Y = Technology/Process Option retained for secondary screening.
^{o}C = degrees Celsius
Note:
Although 1,4-dioxane is considered a VOC, for the purposes of this RAP for Site Soils, 1,4-dioxane is considered independently of the other site-related VOCs.

Prepared By/Date: TSR 01/31/16
Checked By/Date: GWW 02/01/16

TABLE 2.3

Secondary Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Effectiveness	Implementability	Cost	Retain? (Y or N)	Screening Rationale
Institutional Control	Institutional Control	Deed Restriction	Effective regulatorily for preventing exposure to contaminants.	Would involve clauses in the property deed stating applicable restrictions. Land use would be restricted to industrial/commercial, and residential use would not be an alternative.	Low	N	Does not meet RAOs as defined in Section 1.5 of the RAP.
		Access Restriction	Somewhat effective for preventing exposure to contaminants.	Fencing already exists along the property boundary. Access to Site is controlled.	Low capital, Low O&M	N	Does not meet RAOs as defined in Section 1.5 of the RAP.
Containment	Capping	Asphalt/Concrete	Effective if cover remains intact; however, contamination remains in place.	Area of impacted soils is currently covered by building, asphalt, or concrete. Would require frequent inspection and repairs as necessary to asphalt and concrete.	Low capital, Low to Moderate O&M	N	Does not meet RAOs as defined in Section 1.5 of the RAP.
Ex-Situ Treatment / Disposal	Removal	Excavation	Effective for VOC-, 1,4-dioxane, and cyanide-impacted soils Removal combined with off-Site disposal at approved facility.	Implementation is possible but complex, particularly for impacted soil at depth. Would require an extended-reach excavator, shoring and bracing at depth along building, and temporary power re-route or isolation. Not practical for impacted soils located underneath the facility. Extensive network of utilities in areas with impacted soil.	High capital, No O&M	Y	Meets RAOs as defined in Section 1.5 of the RAP for the areas of the Site that are accessible to excavation.
	Ex-Situ Biological	Biopiles and Fungal Biodegradation	Has been demonstrated to be effective on many organics, but effectiveness on impacted Site soils requires pilot testing particularly for 1,4-dioxane.	Excavated soils are mixed with amendments and enclosed. The piles may be aerated with blowers or vacuums to promote biodegredation. Limited area at Site to perform this work. Has all the same implementation issues associated with excavation option.	Moderate capital	N	Effectiveness and time required is uncertain. Space constraints of Site make not practical.
		Slurry-Phase Biotreatment	Has been demonstrated to be effective on many organics, but effectiveness on Site soils requires pilot testing particularly for 1,4-dioxane.	Mixing contaminated soils with water to create a slurry, which is fed to a reactor to be subsequently decomposed. Site space constraints are an issue. Has all the same implementation issues associated with excavation option.	High capital	N	Creates a secondary waste stream which may also require treatment. Space constraints of Site are an issue.
	Ex-Situ Chemical	Chemical Oxidation/ Reduction	Effectiveness is dependent upon complete contact between the contaminants and the oxidant.	Soil must first be excavated and then mixed with water and reagent(s). Site space constraints may affect implementability. Has all the same implementation issues associated with excavation option.	High capital	N	Creates a secondary waste stream which may also require treatment.
	Ex-Situ Physical	Soil Washing	Effective for VOC removal; however, does not destroy contaminants and will require further treatment of VOCs.	Soil is washed with surfactants to dissolve contaminants. Requires system space and soil disposal off Site. Has all the same implementation issues associated with excavation option.	High capital	N	Creates a secondary waste stream which will also require treatment.

See key at end of table

TABLE 2.3

Secondary Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Effectiveness	Implementability	Cost	Retain? (Y or N)	Screening Rationale
Ex-Situ Treatment / Disposal (continued)	Ex-Situ Physical	Soil Vapor Extraction	Effective for VOC removal.	Requires space for treatment vessels, excavation similar to removal technology. Has all the same implementation issues associated with excavation option.	Moderate capital	N	Not competitive with in-situ SVE since complete excavation of impacted soils is difficult.
	Ex-Situ Stabilization/ Solidification	Encapsulation	Effective for stabilizing all contaminants.	Cement and carbon are added to the soil mixture in batches to stabilize contaminants. Cannot implement next to existing building. Bench-testing required.	High capital	N	Land use would be permanently altered and final elevations higher than capping. Would negatively effect Site building.
	Ex-Situ Thermal	Pyrolysis	Effective at removing VOCs. 1,4-dioxane effectiveness is unknown.	Requires offgas collection and treatment. Requires permitting which may not be obtainable. A less common incineration alternative.	Moderate to High capital	N	High energy cost for low overall COC concentrations. Obtaining permit not likely.
		Incineration	Effective, but requires offgas treatment.	Requires extensive permitting. May be an option for land disposal restriction compliance.	Moderate to High capital	N	Space constraints of Site is an issue. Obtaining a permit is unlikely.
		Low Temperature Thermal Desorption	Effective at removing VOCs. 1,4-dioxane effectiveness is unknown.	Requires offgas treatment to remove or destroy VOCs and 1,4-dioxane.	Moderate capital	N	Space constraints of site is an issue. Obtaining a permit is unlikely.
In-Situ Treatment	Natural Attenuation	Natural Attenuation	Lack of COC breakdown products and presence of parent compounds indicates that conditions favoring natural degradation are not present.	Easily implemented.	Low capital, Low O&M	N	Lack of COC breakdown products indicates that conditions favoring natural degradation are not present at the Site.
	In-Situ Biological	Bioaugmentation	Lack of breakdown products indicates that indigenous organisms have not degraded contaminants. Foreign organisms may not be well suited to soil conditions.	Would require extensive wetting of the vadose zone soil. May cause spread of contaminants.	Low to moderate capital, moderate O&M	N	May be difficult to achieve contact in silty/clayey soils present at the Site.
		Bioventing	Effective for low-concentrations of VOCs but may require excessive time for high concentrations VOCs that are present in some areas of the Site.	Uses vertical or horizontal wells, conveyance piping network, and mobile trailer. Additives (e.g., propane, methane, etc.) needed for chlorinated VOCs.	Moderate capital, moderate O&M	N	Timeframe is much slower than SVE for the treatment of VOCs. Site COCs not amenable to aerobic biodegradation.
	In-Situ Stabilization / Solidification	Cement-Based Deep Mixing	Not effective for VOC containment.	Not easily implemented inside building and beneath slab. May cause spread of contaminants.	Low capital, Moderate O&M	N	Doubtful effectiveness and difficult implementation.
	In-Situ Physical/ Chemical	Pneumatic Fracturing	Effective for increasing soil contact.	Difficult to employ near and beneath an existing structure, damage may occur.	Moderate capital	N	Potentially hazardous to building and occupants.
		Soil Vapor Extraction	Effective for VOC removal.	May require initial offgas treatment, but low total mass of COCs in soil should render this requirement short-term or unnecessary. Uses vertical wells, conveyance piping network, and mobile treatment trailer.	Moderate capital, moderate O&M	Y	Effective for VOCs in soils and minimizes impacts on site use. Most effective on more permeable soils. Requires closer spacing of SVE wells and higher vacuum for the less permeable soils that are present at the Site.

See key at end of table

TABLE 2.3

Secondary Screening of Remedial Technologies for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

General Response Action	Technology Type	Process Options	Effectiveness	Implementability	Cost	Retain? (Y or N)	Screening Rationale
In-Situ Treatment (continued)	In-Situ Physical/ Chemical (continued)	In-Situ Chemical Oxidation	Effective for VOC, 1,4-dioxane, and cyanide treatment. Effectiveness is dependent upon sufficient contact between the soil COCs and the selected oxidant. May require more than one injection event to achieve Site RAOs. Bench testing of selected oxidant on impacted Site soils would help define oxidant dosing requirement.	Requires efficient contact between oxidant and the site COCs. Injection point/well spacing must be close in the less permeable soils at the Site. A water supply is necessary. Could also be implemented by mixing oxidant directly with soil (i.e., soil mixing [requires bench testing]); however, the depth of soil contamination and presence of utilities in certain areas of the Site would greatly increase the cost for soil mixing.	Moderate to High capital depending on number of injection events, No O&M	Y	Effective on VOCs, 1,4-dioxane, and cyanide in soils if sufficient contact can be achieved. Most effective on moderately permeable soils. Requires closer vertical spacing of injection points in less permeable soil.
		In-Situ Chemical Reduction	Effective for VOCs but not for 1,4-dioxane and cyanide.	Requires efficient contact between reductant and contaminants. Injection point/well spacing must be reduced with less permeable soils.	Moderate to high capital, moderate O&M	N	Other technologies are more cost effective for this Site.

Key:
COC = Constituents of Concern
O&M = Operations and Maintenance
POTW = Publicly Owned Treatment Workds
RAP = Remedial Action Plan
RAOs = Remedial Action Objectives
SVE = Soil Vapor Extraction
SVOCs = Semivolatile Organic Compounds
VOCs = Volatile Organic Compounds
N = Technology Type/Process Option not retained for remedial alternatives development.
Y = Technology Type/Process Option retained for consideration in remedial alternatives development.

Note:
Although 1,4-dioxane is considered a VOC, for the purposes of this RAP for Site Soils, 1,4-dioxane is considered independently of the other site-related VOCs.

Prepared By/Date: TSR 01/31/16
Checked By/Date: GWW 02/01/16

TABLE 2.4

Opinion of Probable Cost - Alternative S1
Surface Excavation and Subsurface ISCO Injection and SVE
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Total Capital Cost	**Unit**	**Unit Cost**	**Cost**
Task 01 : HASP Update	Lump Sum	$8,000	$8,000
Task 02 : UIC Permit, SVE System Air Permit (or Exemption), Soil Preconstruction Report	Lump Sum	$42,000	$42,000
Task 03 : Surface Soil Excavation, ISCO Injection Event(s), ISCO Confirmation Soil Sampling Event(s), SVE System Installation, Start Up, and O&M	Lump Sum	$684,000	$684,000
Task 04 : Remedial Action Construction Completion Report for Site Soils	Lump Sum	$21,000	$21,000
Total First Year Capital and O&M Cost (Rounded to nearest $10,000)			**$760,000**

Present Value Cost	**Unit**	**Unit Cost**	**Cost**
Includes:			
Present Value Discount Rate	3%		
Total First Year Capital Cost (Rounded to nearest $10,000)	Year 1	$760,000	$760,000
Task 05 : SVE System O&M, SVE Confirmation Soil Sampling Event(s), SVE System Demobilization, and SVE Well Abandonment (Year 2)	Year 2	$137,000	$129,000
Task 06 : Final Remedial Action Completion Report (Year 2)	Year 2	$25,000	$24,000
Total Present Value Cost (Rounded to nearest $10,000)			**$910,000**

Assumptions:

7.5% Mark-up on Field Equipment/Supplies, Travel/Transportation, ODCs, and Subcontractors.

Task 01 : Includes labor to update Health and Safety Plan to include soil excavation, ISCO injection activities, and SVE treatment.

Task 02 : Includes the following:

Air Quality Permit (or exemption) preparation and submittal for SVE system.
UIC Permit perparation and submittal for ISCO injection activities.
Preparation and submittal of Remedial Action Preconstruction Report for Site Soils by senior engineer.

Task 03 : Includes the following:

Utility clearance.
Mobilization/Set Up of excavation equipment (includes backhoe and skid steer to reach impacted surface soil, decon pad, and erosion control).
Asphalt/concrete saw cutting to accommodate soil excavation activities.
Transportation and disposal of ~ 65 cubic yards of asphalt/concrete at C&D landfill.
Excavation of ~900 cubic yards of impacted soil with backhoe.
Direct load of excavated soil (assumed non-hazardous) for transport and disposal to a Subtitle D landfill.
Confirmation soil sampling for the excavation areas prior to backfilling.
Delivery of clean backfill, backfill placement, and compaction. Replacement of asphalt/concrete and final site restoration.
Demobilization of excavation equipment.
Up to three ISCO injection events for cyanide and 1,4-dioxane located outside of building and for VOCs located inside of building.
Up to 3 confirmation soil sampling events following ISCO injections (2 months between injection event and confirmation sampling).
Installation of 13 SVE wells outside of building to address VOCs in Site soils.
Asphalt/concrete saw cutting to accommodate SVE system conveyance piping installation.
SVE system conveyance piping installation and connection to rental SVE treatment trailer.
Delivery of clean backfill, backfill placement, and compaction for SVE conveyance piping trenches.
Replacement of asphalt/concrete and final site restoration.
Disposal of asphalt/concrete at a C&D landfill.
Delivery of rental SVE trailer, electric service installation, and start up.
Monthly O&M and optimization of SVE treatment system by Amec Foster Wheeler senior technician for approximately 7 months.
Periodic collection of vapor samples from SVE treatment system to determine remediation progress.
Oversight by Amec Foster Wheeler for surface soil excavation, excavation confirmation soil sampling, subsurface ISCO injections, SVE system installation, SVE system startup, & ISCO injection confirmation soil sampling.

Task 04 : Includes the following:

Preparation and submittal of Remedial Action Construction Completion Report for Site Soils by senior engineer.

Task 05 : Includes the following:

Up to 2 confirmation soil sampling events following SVE system operation (at 12 months and 18 months after system start up).
Abandonment of 13 SVE wells upon verification of clean confirmation soil samples for VOCs.
Monthly O&M and optimization of SVE treatment system by Amec Foster Wheeler senior technician for approximately 12 months.
Oversight by Amec Foster Wheeler senior technician for SVE system demobilization and SVE well abandonments.

Task 06 : Includes the following:

Preparation and submittal of Final Remedial Action Completion Report for Site Soils by senior engineer.

Prepared By/Date: TSR 02/06/16
Checked By/Date: GWW 02/09/16

TABLE 2.5

Opinion of Probable Cost - Alternative S2
Surface ISCO Blending and Subsurface ISCO Injection and SVE
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Total Capital Cost	**Unit**	**Unit Cost**	**Cost**
Task 01 : HASP Update	Lump Sum	$8,000	$8,000
Task 02 : UIC Permit, SVE System Air Permit (or Exemption), Soil Preconstruction Report	Lump Sum	$42,000	$42,000
Task 03 : Surface Soil ISCO Blending, ISCO Injection Event(s), ISCO Confirmation Soil Sampling Event(s), SVE System Installation, Start Up, and O&M	Lump Sum	$749,000	$749,000
Task 04 : Remedial Action Construction Completion Report for Site Soils	Lump Sum	$21,000	$21,000
Total First Year Capital and O&M Cost (Rounded to nearest $10,000)			**$820,000**

Present Value Cost	**Unit**	**Unit Cost**	**Cost**
Includes:			
Present Value Discount Rate	3%		
Total First Year Capital Cost (Rounded to nearest $10,000)	Year 1	$820,000	$820,000
Task 05 : SVE System O&M, SVE Confirmation Soil Sampling Event(s), SVE System Demobilization, and SVE Well Abandonment (Year 2)	Year 2	$137,000	$129,000
Task 06 : Final Remedial Action Completion Report (Year 2)	Year 2	$25,000	$24,000
Total Present Value Cost (Rounded to nearest $10,000)			**$970,000**

Assumptions:

7.5% Mark-up on Field Equipment/Supplies, Travel/Transportation, ODCs, and Subcontractors.

Task 01 : Includes labor to update Health and Safety Plan to include ISCO soil blending, ISCO injection activities, and SVE treatment.

Task 02 : Includes the following:

Air Quality Permit (or exemption) preparation and submittal for SVE system.
UIC Permit perparation and submittal for ISCO injection activities.
Preparation and submittal of Remedial Action Preconstruction Report for Site Soils by senior engineer.

Task 03 : Includes the following:

Bench-scale treatability study to determine the optimal ISCO reagent concentration for soil blending.
Bench-scale treatability study to develop optiomal soil/cement mix ratio for proper soil stabilization.
Utility clearance, permitting, and temporary overhead electric power isolation.
Mobilization/Set Up of soil blending equipment (includes trackhoe to reach impacted surface soil, decon pad, and erosion control).
Asphalt/concrete saw cutting to accommodate ISCO soil blending activities.
Transportation and disposal of ~ 65 cubic yards of asphalt/concrete at C&D landfill.

Soil blending with ISCO reagent for ~900 cubic yards of impacted soil with track hoe. Completed in lifts to provide uniform ISCO reagent contact.
Portland cement addition and soil blending using track hoe to provide stablized soil following ISCO treatment.
Confirmation soil sampling at ISCO soil blending areas.
Replacement of asphalt/concrete and final site restoration.
Demobilization of ISCO soil blending equipment.
Up to three ISCO injection events for cyanide and 1,4-dioxane located outside of building and for VOCs located inside of building.
Up to 3 confirmation soil sampling events following ISCO injections (2 months between injection event and confirmation sampling).
Installation of 13 SVE wells outside of building to address VOCs in Site soils.
Asphalt/concrete saw cutting to accommodate SVE system conveyance piping installation.
SVE system conveyance piping installation and connection to rental SVE treatment trailer.
Delivery of clean backfill, backfill placement, and compaction for SVE conveyance piping trenches.
Replacement of asphalt/concrete and final site restoration.
Disposal of asphalt/concrete at a C&D landfill.
Delivery of rental SVE trailer, electric service installation, and start up.
Monthly O&M and optimization of SVE treatment system by Amec Foster Wheeler senior technician for approximately 7 months.
Periodic collection of vapor samples from SVE treatment system to determine remediation progress.
Oversight by Amec Foster Wheeler for surface soil ISCO blending, confirmation soil sampling, subsurface ISCO injections, SVE system installation, SVE system startup, & ISCO injection confirmation soil sampling.

Task 04 : Includes the following:

Preparation and submittal of Remedial Action Construction Completion Report for Site Soils by senior engineer.

Task 05 : Includes the following:

Up to 2 confirmation soil sampling events following SVE system operation (at 12 months and 18 months after system start up).
Abandonment of 13 SVE wells upon verification of clean confirmation soil samples for VOCs.
Monthly O&M and optimization of SVE treatment system by Amec Foster Wheeler senior technician for approximately 12 months.
Oversight by Amec Foster Wheeler senior technician for SVE system demobilization and SVE well abandonments.

Task 06 : Includes the following:

Preparation and submittal of Final Remedial Action Completion Report for Site Soils by senior engineer.

Prepared By/Date: TSR 02/06/16
Checked By/Date: GWW 02/09/16

TABLE 2.6

Opinion of Probable Cost - Alternative S3
Surface and Subsurface ISCO Injection and SVE
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Total First Year Capital and O&M Cost	**Unit**	**Unit Cost**	**Cost**
Task 01 : HASP Update	Lump Sum	$8,000	$8,000
Task 02 : UIC Permit, SVE System Air Permit (or Exemption), Soil Preconstruction Report	Lump Sum	$42,000	$42,000
Task 03 : ISCO Injection Event(s), ISCO Confirmation Soil Sampling Event(s), SVE System Installation, Start Up, & O&M	Lump Sum	$576,000	$576,000
Task 04: Remedial Action Construction Completion Report for Site Soils	Lump Sum	$21,000	$21,000
Total First Year Capital and O&M Cost (Rounded to nearest $10,000)			**$650,000**

Present Value Cost	**Unit**	**Unit Cost**	**Cost**
Includes:			
Present Value Discount Rate	3%		
Total First Year Capital Cost (Rounded to nearest $10,000)	Year 1	$650,000	$650,000
Task 05 : SVE System O&M, SVE Confirmation Soil Sampling Event(s), SVE System Demobilization, & SVE Well Abandonment (Year 2)	Year 2	$137,000	$129,000
Task 06 : Final Remedial Action Completion Report (Year 2)	Year 2	$25,000	$24,000
Total Present Value Cost (Rounded to nearest $10,000)			**$800,000**

Assumptions:

Discount rate exceeds inflationary rate by 3%.

7.5% Mark-up on Field Equipment/Supplies, Travel/Transportation, ODCs, and Subcontractors.

Task 01 : Includes labor to update Health and Safety Plan to include ISCO injection activities and SVE treatment.

Task 02 : Includes the following:

Air Quality Permit (or exemption) preparation and submittal for SVE system.
UIC Permit perparation and submittal for ISCO injection activities.
Preparation and submittal of Remedial Action Preconstruction Report for Site Soils by senior engineer.

Task 03 : Includes the following:

Utility clearance and permitting.
Up to three ISCO injection events for VOCs located inside of building and for cyanide and 1,4-dioxane located outside of building.
Up to 3 confirmation soil sampling events following ISCO injections (2 months between injection event and confirmation sampling).
Installation of 13 vertical SVE wells and 2 horizontal SVE wells outside of building to address VOCs in Site soils.
Asphalt/concrete saw cutting to accommodate SVE system conveyance piping installation.
SVE system conveyance piping installation and connection to rental SVE treatment trailer.
Delivery of clean backfill, backfill placement, and compaction for SVE conveyance piping trenches.
Replacement of asphalt/concrete and final site restoration.
Disposal of asphalt/concrete at a C&D landfill.
Delivery of rental SVE trailer, electric service installation, and start up.
Monthly O&M and optimization of SVE treatment system by Amec Foster Wheeler senior technician for approximately 7 months.
Periodic collection of vapor samples from SVE treatment system to determine remediation progress.
Oversight by Amec Foster Wheeler for ISCO injections, SVE system installation, SVE system startup, & ISCO confirmation soil sampling.

Task 04 : Includes the following:

Preparation and submittal of Remedial Action Construction Completion Report for Site Soils by senior engineer.

Task 05 : Includes the following:

Up to 2 confirmation soil sampling events following SVE system operation (at 12 months and 18 months after system start up).
Abandonment of 13 vertical SVE wells and 2 horizontal SVE wells upon verification of clean confirmation soil samples for VOCs.
Monthly O&M and optimization of SVE treatment system by Amec Foster Wheeler senior technician for approximately 12 months.
Oversight by Amec Foster Wheeler senior technician for SVE system demobilization and SVE well abandonments.

Task 06 : Includes the following:

Preparation and submittal of Final Remedial Action Completion Report for Site Soils by senior engineer.

Prepared By/Date: TSR 02/25/16
Checked By/Date: GWW 02/26/16

TABLE 2.7

Comparative Summary of Remedial Alternatives for Site Soils
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Criteria Description/ RAP Section No.	Criteria	Alternative S1 Surface Soil Excavation and Subsurface Soil ISCO Injection and SVE	Alternative S2 Surface Soil ISCO Blending and Subsurface Soil ISCO Injection and SVE	Alternative S3 Surface and Subsurface Soil ISCO Injection and SVE
	Alternative Description	Excavation of surface soils (0 to 5 feet bgs) that contain 1,4-dioxane and VOCs above their POG PSRGs and cyanide above its Adjusted PSRG. Disposal of excavated soils (assumed non-hazardous) at a permitted Subtitle D landfill. Clean backfill, compaction, and site restoration. Up to three ISCO injection events to treat 1,4-dioxane that exists above its POG PSRG and cyanide that exists above its Adjusted PSRG in subsurface soils (> 5 feet bgs) located outside of the facility; one ISCO event to treat VOCs that exist above their respective POG PSRGs underneath the facility. SVE treatment for VOCs in subsurface soils that exist above their respective POG PSRGs using a mobile treatment trailer and 13 vertical SVE wells.	ISCO soil blending in lifts for all surface soils (0 to 5 feet bgs) that contain 1,4-dioxane and VOCs above their POG PSRGs and cyanide above its Adjusted PSRG. Site restoration following completion of soil blending. Up to three ISCO injection events to treat 1,4-dioxane that exists above its POG PSRG and cyanide that exists above its Adjusted PSRG in subsurface soils (> 5 feet bgs) located outside of the facility; one ISCO event to treat VOCs that exist above their respective POG PSRGs underneath the facility. SVE treatment for VOCs in subsurface soils that exist above their respective POG PSRGs using a mobile treatment trailer and 13 vertical SVE wells.	Up to three ISCO injection events to treat 1,4-dioxane that exists above its POG PSRG and cyanide that exists above its Adjusted PSRG in surface (0 to 5 feet bgs) and subsurface soils (> 5 feet bgs) located outside of the facility; one ISCO event to treat VOCs that exist above their respective POG PSRGs underneath the facility in subsurface soils. SVE treatment for VOCs in subsurface soils that exist above their respective POG PSRGs using a mobile treatment trailer and 13 vertical SVE wells and 2 horizontal SVE wells.
Protection of Human Health and Environment				
2.3.1.1	Human Health Protection	Expected to be protective of human health due to removal of impacted surface soils located outside of the building, ISCO destruction of 1,4-dioxane- and cyanide in impacted subsurface soils outside of the building and VOCs underneath the building, and SVE treatment of VOCs in subsurface soils outside of the building. Human Health Protection equivalent to Alternatives S2 and S3.	Expected to be protective of human health due to ISCO soil blending treatment of impacted surface soils located outside of the building, ISCO destruction of 1,4-dioxane- and cyanide in impacted subsurface soils outside of the building and VOCs underneath the building, and SVE treatment of VOCs in subsurface soils outside of the building. Human Health Protection equivalent to Alternatives S1 and S3.	Expected to be protective of human health due to a combination of ISCO destruction and SVE treatment of COCs in impacted surface and subsurface soils located outside of the building and underneath the building. Human Health Protection equivalent to Alternatives S1 and S2.
	Environmental Protection	Risk of further degradation of groundwater quality caused by overlying impacted Site soils will be eliminated. Environmental Protection equivalent to Alternatives S2 and S3.	Risk of further degradation of groundwater quality caused by overlying impacted Site soils will be eliminated. Environmental Protection equivalent to Alternatives S1 and S3.	Risk of further degradation of groundwater quality caused by overlying impacted Site soils will be eliminated. Environmental Protection equivalent to Alternatives S1 and S2.
Compliance with Regulations				
2.3.1.2	Chemical-Specific Regulations	Will achieve the NCDEQ IHSB POG PSRGs for Site-specific VOCs and 1,4-dioxane and the Adjusted Residential PSRG for cyanide.	Will achieve the NCDEQ IHSB POG PSRGs for Site-specific VOCs and 1,4-dioxane and the Adjusted Residential PSRG for cyanide.	Will achieve the NCDEQ IHSB POG PSRGs for Site-specific VOCs and 1,4-dioxane and the Adjusted Residential PSRG for cyanide.
	Action-Specific Regulations	Will comply with NCDEQ UIC permit requirements. Will comply with Clean Air Act requirements. Disposal of excavated soil and asphalt/concrete IDW will comply with RCRA requirements.	Will comply with NCDEQ UIC permit requirements. Will comply with Clean Air Act requirements. Disposal for all generated soil and asphalt/concrete IDW will comply with RCRA requirements.	Will comply with NCDEQ UIC permit requirements. Will comply with Clean Air Act requirements. Disposal of all generated soil and asphalt/concrete IDW will comply with RCRA requirements.
Long-Term Effectiveness and Reliability				
2.3.1.3	Magnitude of Residual Risk	A risk currently exists for construction workers that come into contact with impacted site soils and potential future residents if current property use changes. Residual risk from Site soils is minimal to all receptors following the completion of Alternative S1. Confirmation soil sampling program used to ensure RAOs are met. Magnitude of residual risk is equivalent to the other two alternatives.	A risk currently exists for construction workers that come into contact with impacted site soils and potential future residents if current property use changes. Residual risk from Site soils is minimal to all receptors following the completion of Alternative S2. Confirmation soil sampling program used to ensure RAOs are met. Magnitude of residual risk is equivalent to the other two alternatives.	A risk currently exists for construction workers that come into contact with impacted site soils and potential future residents if current property use changes. Residual risk from Site soils is minimal to all receptors following the completion of Alternative S3. Confirmation soil sampling program used to ensure RAOs are met. Magnitude of residual risk will be equivalent to the other two alternatives.
	Adequacy and Reliability of Controls	Adequacy and reliability of surface soil excavation for all Site COCs are high. Adequacy and reliability of ISCO injection to treat subsurface soils for 1,4-dioxane, cyanide, and VOCs are moderate to high. SVE treatment of VOCs in subsurface soil is adequate and reliable as long as the SVE influence and duration of operation are adequate. Requires routine O&M to optimize SVE treatment system efficiency.	Adequacy and reliability of ISCO soil blending for all Site COCs are high when combined with an up front ISCO treatability study. Adequacy and reliability of ISCO injection to treat subsurface soils for 1,4-dioxane, cyanide, and VOCs are moderate to high. SVE treatment of VOCs in subsurface soil is adequate and reliable as long as the SVE influence and duration of operation are adequate. Requires routine O&M to optimize SVE treatment system efficiency.	Adequacy and reliability of ISCO injection to treat subsurface soils for 1,4-dioxane, cyanide, and VOCs are moderate to high. SVE treatment of VOCs in subsurface soil is adequate and reliable as long as the SVE influence and duration of operation are adequate. Requires routine O&M to optimize SVE treatment system efficiency.

TABLE 2.7

Comparative Summary of Remedial Alternatives for Site Soils
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Boone, North Carolina
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Reduction of Volume, Toxicity, and/or Mobility, through Treatment				
2.3.1.4	Treatment Process Used	COCs in surface soil excavated and disposed off site at an approved facility. ISCO injection events treat 1,4-dioxane and cyanide in subsurface soils located outside of the facility; ISCO also treats VOCs that exist underneath the facility in one localized area. SVE treatment of VOCs in subsurface soils.	COCs in surface soils treated by ISCO soil blending. ISCO injection events treat 1,4-dioxane and cyanide in subsurface soils located outside of the facility; ISCO also treats VOCs that exist underneath the facility in one localized area. SVE treatment of VOCs in subsurface soils.	ISCO injection events treat 1,4-dioxane and cyanide in surface and subsurface soils located outside of the facility; ISCO also treats VOCs that exist underneath the facility in one localized area. SVE treatment of VOCs in surface and subsurface soils.
	Reduction of Volume, Toxicity, and/or Mobility	Significant reduction in surface soils COC mobility occurs through removal and off-site disposal. COC toxicity and mobility in impacted subsurface soils are significantly reduced by ISCO injections. VOC toxicity and mobility in impacted subsurface soils are significantly reduced by SVE treatment.	Significant reduction in surface soils COC toxicity and mobility occurs via ISCO soil blending. COC toxicity and mobility in impacted subsurface soils are significantly reduced by ISCO injections. VOC toxicity and mobility in impacted subsurface soils are significantly reduced by SVE treatment.	COC toxicity and mobility in impacted surface and subsurface soils are significantly reduced by ISCO injections. VOC toxicity and mobility in impacted surface and subsurface soils are significantly reduced by SVE treatment.
	Irreversible Treatment	Irreversible for impacted subsurface soils treated by ISCO injection and SVE removal.	Irreversible for impacted surface soils treated by ISCO blending and impacted subsurface soils treated by ISCO injection and SVE removal.	Irreversible for impacted surface and subsurface soils treated by ISCO injection and SVE removal.
	Statutory Preference for Treatment	Alternative S1 partially satisfies this preference.	Alternative S2 satisfies this preference.	Alternative S3 satisfies this preference.
Short-Term Effectiveness				
2.3.1.5	Community Protection	Risk to community is reduced by treating impacted soils on Site. Risk to community presented by the large number of trucks required to transport excavated soil to final disposal location. Slight risk to people working at the facility during remedial activities. Air monitoring and dust suppression used to protect construction and facility workers during excavation activities. Site-specific Health and Safety Plan will address community protection during soil remediation activities. Future risk to community presented by exposure to impacted Site soils is greatly reduced upon completion of Alternative S1. Most risk posed to the community during implementattion of the three alternatives.	Risk to community is reduced by treating all impacted soils on Site. Slight risk to people working at the facility during remedial activities. Air monitoring and dust suppression used to protect construction and facility workers during ISCO soil blending activities. Site-specific Health and Safety Plan will address community protection during soil remediation activities. Future risk to community presented by exposure to impacted Site soils is greatly reduced upon completion of Alternative S2. Risk is less than Alternative S1 but more than Alternative S3 because of the large equipment required on Site for ISCO blending.	Risk to community is reduced by treating all impacted soils on Site. Slight risk to people working at the facility during remedial activities. Air monitoring and dust suppression may be used to protect construction and facility workers during trenching activities. Site-specific Health and Safety Plan will address community protection during soil remediation activities. Future risk to community presented by exposure to impacted Site soils is greatly reduced upon completion of Alternative S3. Least risk of all three alternatives.
	Worker Protection	Risk to workers minimized by strict adherence to a Site-specific Health and Safety Plan during soil excavation, SVE system installation, and ISCO injection activities. Requires dust suppression using water to minimize potential exposure during excavation. Numerous buried utilities within areas to be excavated requires close coordination to avoid potential issues. Poses more short-term risk (excavation equipment, trucks for soil disposal) than Alternative S3 and is equivalent to Alternative S2.	Risk to workers minimized by strict adherence to a Site-specific Health and Safety Plan during ISCO soil blending, SVE system installation, and ISCO injection activities. Requires dust suppression using water to minimize potential exposure during ISCO soil blending activities. Requires the temporary isolation of overhead electric that is located immediately adjacent to portions of the proposed ISCO soil blending areas. Numerous buried utilities within areas to be soil blended requires close coordination to avoid potential issues. Poses more short-term risk (soil blending equipment) than Alternative S3 and is equivalent to Alternative S1.	Risk to workers minimized by strict adherence to a Site-specific Health and Safety Plan during SVE system installation and ISCO injection activities. May require dust suppression using water to minimize potential exposure during SVE system installation. Poses less short-term risk than the other two remedial alternatives since no large excavation or soil blending equipment is required and utilities are buried deeper than the proposed trench depths for the SVE conveyance piping. Up front utility locating services will be used to avoid issues with utilities during installation of the two horizontal SVE wells.
	Environmental Protection	Erosion/Sediment control used during excavation activities.	Erosion/Sediment control used during ISCO soil blending activities.	Erosion/Sediment control not required.
	Time to Reach Impacted Soil RAOs	Excavation will achieve RAOs immediately upon removal of the COC-impacted surface soils. Up to 9 months to achieve the RAOs for 1,4-dioxane- and cyanide-impacted subsurface soils if multiple injecton events are required. Up to 3 months (one ISCO injection event is anticipated) will be required to achieve the RAOs for VOCs located in subsurface soils underneath the facility. From 12 months to 18 months will be required to achieve the RAOs for VOCs in subsurface soils located outside of the facility.	ISCO soil blending will achieve RAOs immediately upon completion of blending activities for the COC-impacted surface soils. Up to 9 months to achieve the RAOs for 1,4-dioxane- and cyanide-impacted subsurface soils if multiple injecton events are required. Up to 3 months (one ISCO injection event anticipated) will be required to achieve the RAOs for VOCs located in subsurface soils underneath the facility. From 12 months to 18 months will be required to achieve the RAOs for VOCs in subsurface soils located outside of the facility.	Up to 9 months to achieve the RAOs for 1,4-dioxane- and cyanide-impacted subsurface soils if multiple injecton events are required. Up to 3 months (one ISCO injection event anticipated) will be required to achieve the RAOs for VOCs located in subsurface soils underneath the facility. From 12 months to 18 months will be required to achieve the RAOs for VOCs in surface and subsurface soils located outside of the facility.

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Implementability				
2.3.1.6	Ability to Construct and Operate	Conventional construction techniques and equipment can be used for surface soil excavation work. Space constraints of site require careful coordination with current facility owner. Slope stability measures along edge of hillside may be required prior to conducting excavation activities. May require extensive relocation and/or protection of existing buried utilities. Requires a UIC permit for ISCO injections. Requires an Air Quality permit or exemption for the SVE treatment system. Monthly O&M of SVE system is required; daily remote telemetry monitoring from office to be conducted. More initial implementation effort than for Alternative S3; same as Alternative S2.	Conventional construction techniques and equipment can be used for ISCO soil blending work. Requires treatability studies to determine the optimal ISCO reagent-to-soil ratio for blending and portland cement-to-soil ratio for final soil stabilization. Space constraints of site require careful coordination with current facility owner. Slope stability measures along edge of hillside may be required prior to conducting ISCO soil blending activities. Would require extensive relocation and/or protection of existing buried utilities. Requires overhead electric isolation or temporary re-route to accommodate ISCO soil blending activities. Requires a UIC permit for ISCO injections. Requires an Air Quality permit or exemption for the SVE treatment system. Monthly O&M of SVE system is required; daily remote telemetry monitoring from office to be conducted. More initial implementation effort than Alternative S3; same as Alternative S1.	Requires a UIC permit for ISCO injections. Requires an Air Quality permit or exemption for the SVE treatment system. Monthly O&M of SVE system is required; daily remote telemetry monitoring from office to be conducted. Space constraints of site require careful coordination with current facility owner. Less implementation effort than Alternatives S1 and S2.
	Ease of Doing More Action if Needed	Can perform additional excavation work; however, costly to re-mobilize excavation equipment to Site location. Relatively easy to implement additional ISCO injection events, if necessary. Can add additional vertical SVE wells, if needed. Would require additional trenching, piping installation, and hook up to SVE trailer for any additional SVE wells. More difficult and costly than Alternative S3 and equivalent to Alternative S2.	Can perform additional ISCO soil blending work; however, costly to re-mobilize blending equipment and ISCO chemicals to Site location. Relatively easy to implement additional ISCO injection events, if necessary. Can add additional vertical SVE wells, if needed. Would require additional trenching, piping installation, and hook up to SVE trailer for any additional SVE wells. More difficult and costly than Alternative S3 and equivalent to Alternative S1.	Relatively easy to implement additional ISCO injection events, if necessary. Can add additional vertical or horizontal SVE wells, if needed. Would require additional trenching, piping installation, and hook up to SVE trailer for any additional SVE wells. Less difficult and costly than Alternatives S1 and S2.
	Ability to Monitor Effectiveness	Confirmation soil sampling for surface soils will be conducted concurrently with excavation activities and prior to backfilling. Confirmation soil sampling for subsurface soils treated by ISCO will initially be conducted approximately two months after the first ISCO injection event. Additional confirmation soil sampling will be conducted for each additional ISCO event as necessary. Confirmation soil sampling will be completed for subsurface soils treated by SVE approximately 12 months after system start up. Soil vapor sampling will be conducted periodically to monitor cleanup progress.	Confirmation soil sampling for surface soils will be conducted concurrently with ISCO soil blending activities and prior to backfilling. Confirmation soil sampling for subsurface soils treated by ISCO will initially be conducted approximately two months after the first ISCO injection event. Additional confirmation soil sampling will be conducted for each additional ISCO event as necessary. Confirmation soil sampling will be completed for subsurface soils treated by SVE approximately 12 months after system start up. Soil vapor sampling will be conducted periodically to monitor cleanup progress.	Confirmation soil sampling for surface and subsurface soils treated by ISCO will initially be conducted approximately two months after the first ISCO injection event. Additional confirmation soil sampling will be conducted for each additional ISCO event as necessary. Confirmation soil sampling will be completed for surface and subsurface soils treated by SVE approximately 12 months after system start up. Soil vapor sampling will be conducted periodically to monitor cleanup progress.
	Ability to Obtain Approvals and Coordinate with Other Agencies	Requires NCDEQ approval. Approval for this alternative is likely.	Requires NCDEQ approval. Approval for this alternative is likely.	Requires NCDEQ approval. Approval for this alternative is likely.
	Availability of Services and Materials	Commonly used excavation and transportation equipment readily available. Sampling and drilling equipment readily available. Lead time required to procure ISCO chemicals and injection trailer, but are available. Lead time required to procure rental SVE trailer unit. Will require an electric power connection to the SVE trailer unit; electrical contractors readily available. SVE system conveyance piping and materials readily available.	Commonly used ISCO soil blending equipment readily available. Sampling and drilling equipment readily available. Lead time required to procure ISCO chemicals and injection trailer, but are available. Lead time required to procure rental SVE trailer unit. Will require an electric power connection to the SVE trailer unit; electrical contractors readily available. SVE system conveyance piping and materials readily available.	Sampling and drilling equipment readily available. Lead time required to procure rental SVE trailer unit. Will require an electric power connection to the SVE trailer unit; electrical contractors readily available. SVE system conveyance piping and materials readily available. Lead time required to procure ISCO chemicals and injection trailer, but are available.

TABLE 2.7

Comparative Summary of Remedial Alternatives for Site Soils
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Regulatory/Public Acceptance				
2.3.1.7	Regulatory/Public Acceptance	Existing Regulatory/Public acceptance of proposed technologies at similar sites. Excavation, ISCO injection, and SVE are well-established technologies with demonstrated success at other sites with similar constituents and concentrations.	Existing Regulatory/Public acceptance of proposed technologies at similar sites. ISCO soil blending, ISCO injection, and SVE are well-established technologies with demonstrated success at other sites .	Existing Regulatory/Public acceptance of proposed technologies at similar sites. ISCO injection and SVE are well-established technologies with demonstrated success at other sites with similar constituents and concentrations.
Relative Cost				
2.3.1.8	First Year Cost	$760,000	$820,000	$650,000
	Present Worth Cost	$910,000	$970,000	$800,000

Abbreviations:

bgs - below ground surface
COC - Constituent of Concern (VOCs, 1,4-dioxane, and cyanide)
IDW - Investigation-Derived Waste
IHSB - Inactive Hazardous Sites Branch
ISCO - In Situ Chemical Oxidation
NCDEQ - North Carolina Department of Environmental Quality
O&M - Operation and Maintenance
POG - Protection of Groundwater
PSRG - Preliminary Soil Remediation Goal
RAO - Remedial Action Objective
RCRA - Resource Conservation and Recovery Act
SVE - Soil Vapor Extraction
UIC - Underground Injection Control
VOC - volatile organic compound

Prepared By/Date: TSR 02/25/16
Checked By/Date: GWW 02/26/16

TABLE 3.1
First ISCO Injection Event Details
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Location	Targeted Injection Depth (feet bgs)	Targeted Injection Point Inteval (feet)	Total Depth of Each Injection Point (feet)	Number of Injection Points	Total Drilling per Location (feet)	Total Quantity of Oxidant to Inject (gallons)	Total Quantity of Oxidant to Inject per Injection Point (gallons)	Number of Injection Intervals per Injection Point	Total Quanity of Oxidant per Interval (gallons)
VOC Area Inside	9-13	4	13	1	13	309	309	3	103
VOC Area Inside	7-11	4	11	1	11	309	309	3	103
CN SB-42	12-16	4	16	3	48	267	89	2	45
CN SB-44	16-20	4	20	1	20	89	89	2	45
CN SB-16	8-12	4	12	1	12	89	89	2	45
CN SB-17A	3-7	4	7	1	7	89	89	2	45
CN SB-20	3-8	5	8	3	24	333	111	3	37
CN SB-48	3-7	4	7	1	7	89	89	2	45
DS-25 0-5'	1-5	4	5	1	5	62	62	2	31
DS-25 5-15'	5-15	10	15	3	45	465	155	3	52
DS-25 15-30'	15-30	15	30	14	420	3248	232	4	58

Total Points	**30**
Total Drilling Feet	**612**
Total Gallons of Oxidant to Inject	**5349**

Notes:
feet bgs = feet below ground surface
oxidant = sodium-catalyzed hydrogen peroxide

Prepared By/Date: TSR 02/05/16
Checked By/Date: GWW 02/09/16

TABLE 4.1

Proposed Remedial Action Plan for Site Soils Implementation Schedule
Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

	Anticipated	2016																																										2017											
Month / Quarter	Duration	Mar				Apr					May				Jun				Jul					Aug				Sep					Oct				Nov				Dec					Q1			Q2			Q3			Q4		
Week Ending Date (Friday) / Month	(weeks)	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30	J	F	M	A	M	J	J	A	S	O	N	D
REC Regulatory Process																																																									
Draft Proposed Remedial Action Plan Submittal	1	G																																																							
Public Review and Comment	5	G	G	G	G	G																																																			
Final Proposed Remedial Action Plan Completion Certification	1						G																																																		
Remedial Action Preconstruction Certification	1								G																																																
Remedial Action Construction Completion Certification	1																													G	G																										
Remedial Action Completion Certification	1																																																								
Reporting																																																									
Remedial Action Preconstruction Report	5					G	G	G	G	G																																															
Remedial Action Construction Completion Report	3																												G	G	G																										
Remedial Action Progress Reports (Quarterly)	5																												G	G	G													G	G													
Remedial Action Completion Report	4																																																								
3.3.1 Design, Procurement																																																									
Proposed RAP Publication	1	G																																																							
Proposed RAP Finalization	1						G																																																		
Draft Preconstruction Report/Finalization	5					G	G	G	G	G																																															
UIC Permit for ISCO Injection	5						G	G	G	G	G																																														
Air Quality Permit Applicability Determination for SVE Treatment System	5						G	G	G	G	G																																														
General Contractor Procurement	3										G	G	G																																											
Driller Procurement	2										G	G																																													
ISCO Vendor Procurement	4									G	G	G	G																																												
SVE System Procurement	4									G	G	G	G																																												
Electrical Contractor Procurement	2										G	G																																													
3.3.5 Full Scale Implementation																																																									
ISCO Oxidant Injection	1, 2**													G													R													R																	
SVE Well and Piping Installation, Start Up, and Troubleshooting	5														G	G	G	G	G																																						
3.3.6 Operation and Maintenance																																																									
SVE System																																																									
o Monitoring and Maintenance of Equipment	56, 20**																			G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	R	R	R	
o Flow Adjustment and Treatment Optimization	N/A																							G				G					G							G					G	G	G	G	G	G	G	G	R	R	R	R	
3.3.7 Active Remediation Transition Events																																																									
ISCO																																																									
o Confirmation Sampling Event(s)	1, 2**																					G														R								R													
SVE System																																																									
o Confirmation Sampling Event(s)	1, 1**																																																			G				R	
o System Shutdown	1																																																				G				R
3.3.8 ISCO Well and SVE System Decommissioning and Abandonment																																																									
Abandonment of ISCO Wells and SVE Wells	1																																																				G				R
Removal of SVE Treatment System and Termination of Electric Connections	1																																																				G				R

Legend : [green] Soil Remediation Activity [red] **Soil Remediation Activity that may or may not be required N/A - Not Applicable

Prepared By/Date: TSR 02/10/16
Checked By/Date: GWW 02/10/16

TABLE 4.2

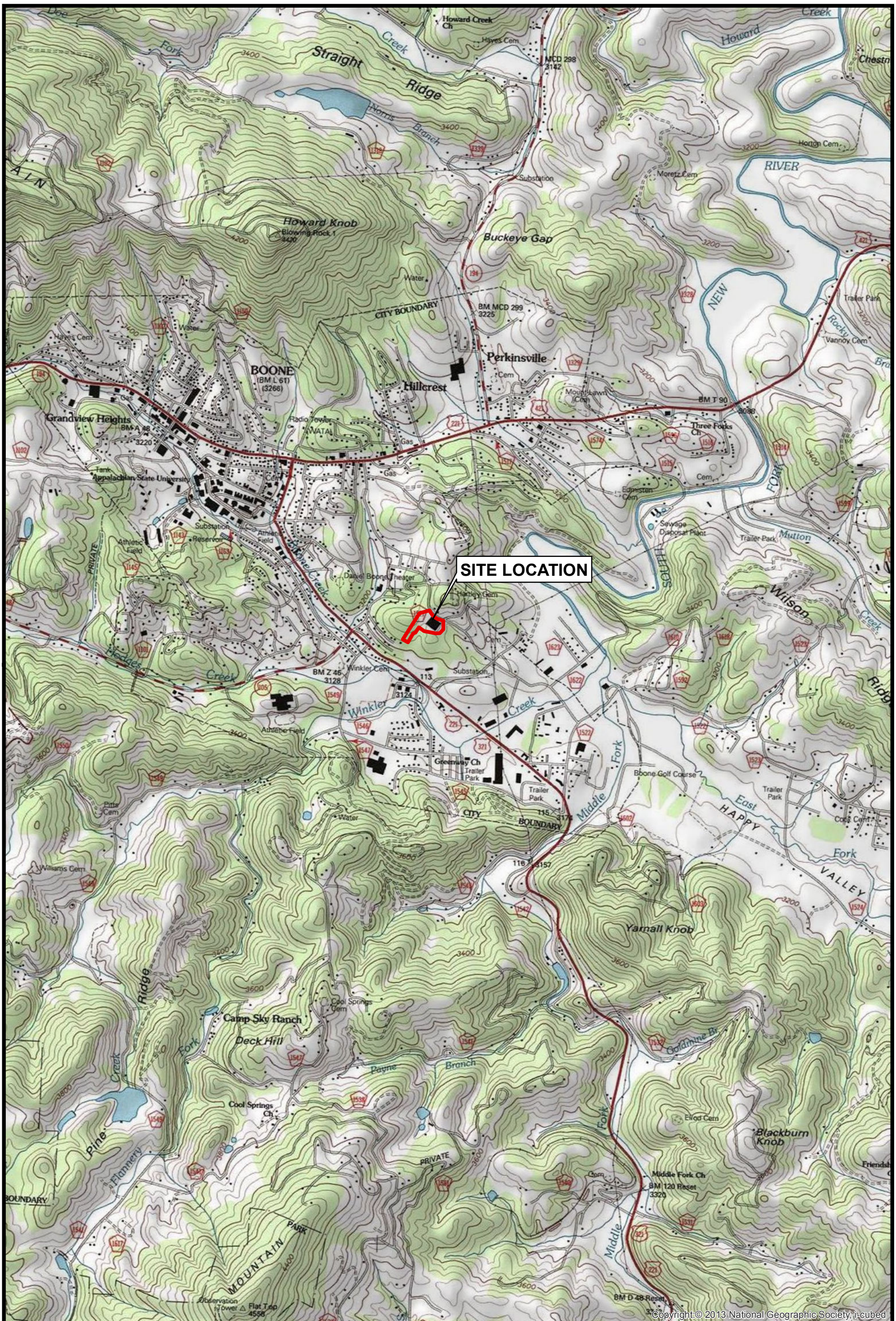
Soils Remediation Performance Monitoring Schedule
Former Robert Bosch Tool Corporation Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Category	Sampling Locations	Frequency	Parameters All Samples	
ISCO Effectiveness	Per REC Program Guidance (Oct 2015), Appendix C.2.1. Number/depths of samples to be presented in a table in the RAPCRSS	Approximately 60 days following ISCO injection event	Lab	VOCs (EPA Method 8260B), 1,4-Dioxane (EPA Method 8260 SIM), Total Cyanide (SM-4500-CN-E), Free Cyanide (EPA Method 9014).
SVE Effectiveness	SVE influent gas	Initial and quarterly	Field	FID vapor concentrations and/or Gastec® 133LL tubes.
	Individual manifold branches (4 total)	Initial and quarterly	Field	FID vapor concentrations and/or Gastec® 133LL tubes.
	SVE influent gas	Initial and quarterly	Lab	VOCs (EPA Method TO-15 [Site-related VOCs only]).
	Per REC Program Guidance (Oct 2015), Appendix C.2.1 Number/depths of samples to be presented in a table in the RAPCRSS.	After SVE treatment system shutdown	Lab	VOCs (EPA Method 8260B).

Abbreviations:
EPA = Environmental Protection Agency
FID = Flame Ionization Detector
PCE = tetrachloroethene
RAPCRSS = Remedial Action Preconstruction Report for Site Soils
REC = Registered Environmental Consultant
SIM = Select Ion Monitoring
SM = Standard Method
SVE = Soil Vapor Extraction
VOCs = Volatile Organic Compounds

Prepared By/Date: TSR 02/04/16
Checked By/Date: GWW 02/05/16

FIGURES



Data Source: 2009 National Geographic Society, http://goto.arcgisonline.com/maps/USA_Topo_Maps.

0 1,000 2,000 4,000 Feet

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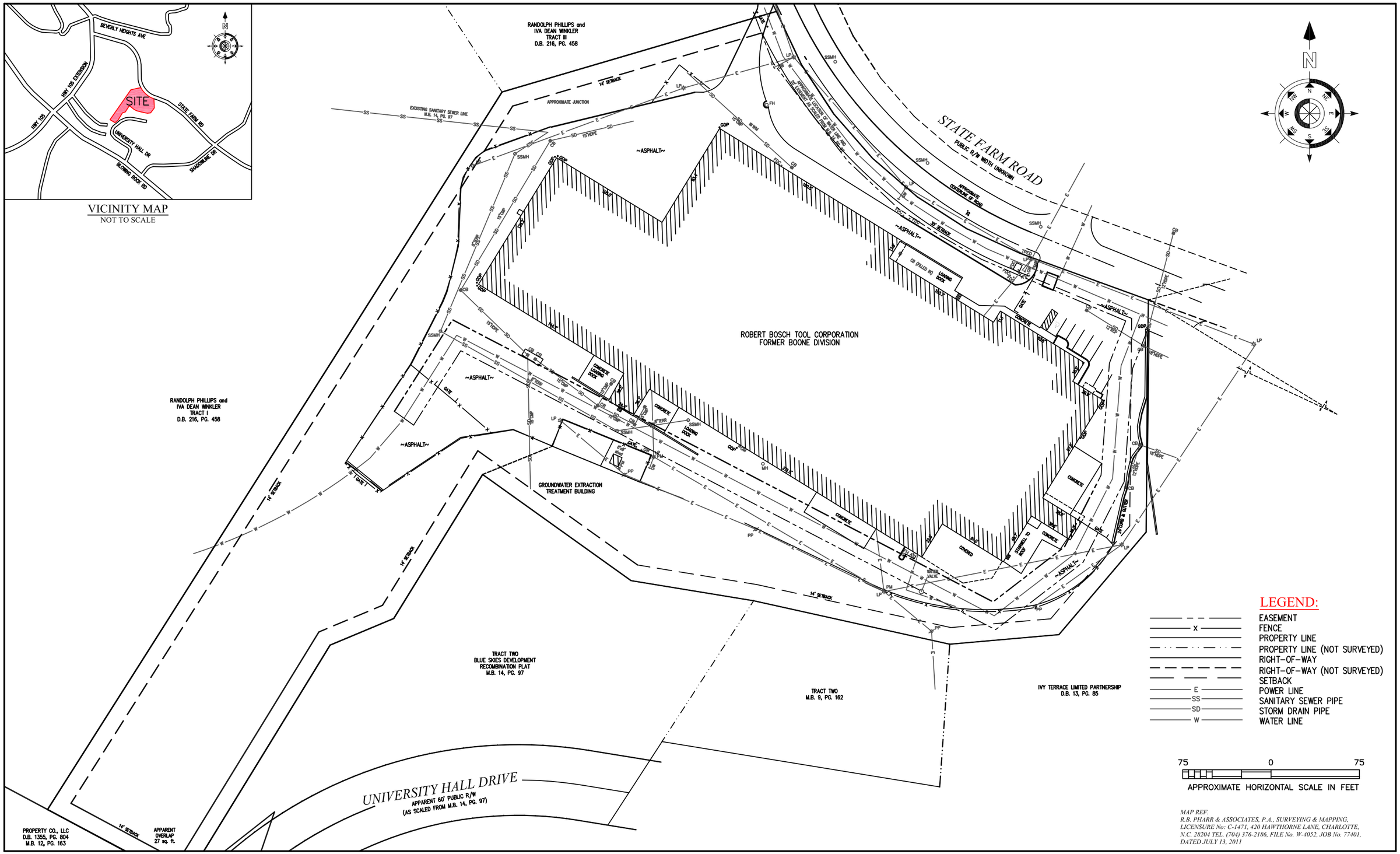
JOB:	6251-12-1001
DATE:	3/19/15
SCALE:	AS SHOWN
DRAWN:	KEC
REVD:	MJF
CHKD:	TSR
DATE:	3/19/15

SITE LOCATION MAP

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE NO. 1.1

PROJECT NO. 6251-12-1001



DRAWN	DDS	DATE	03/16/15
CHECKED	TSR	FILE	Figure 1.2
APPROVED	PSJ	JOB NO:	6251121001.03.01

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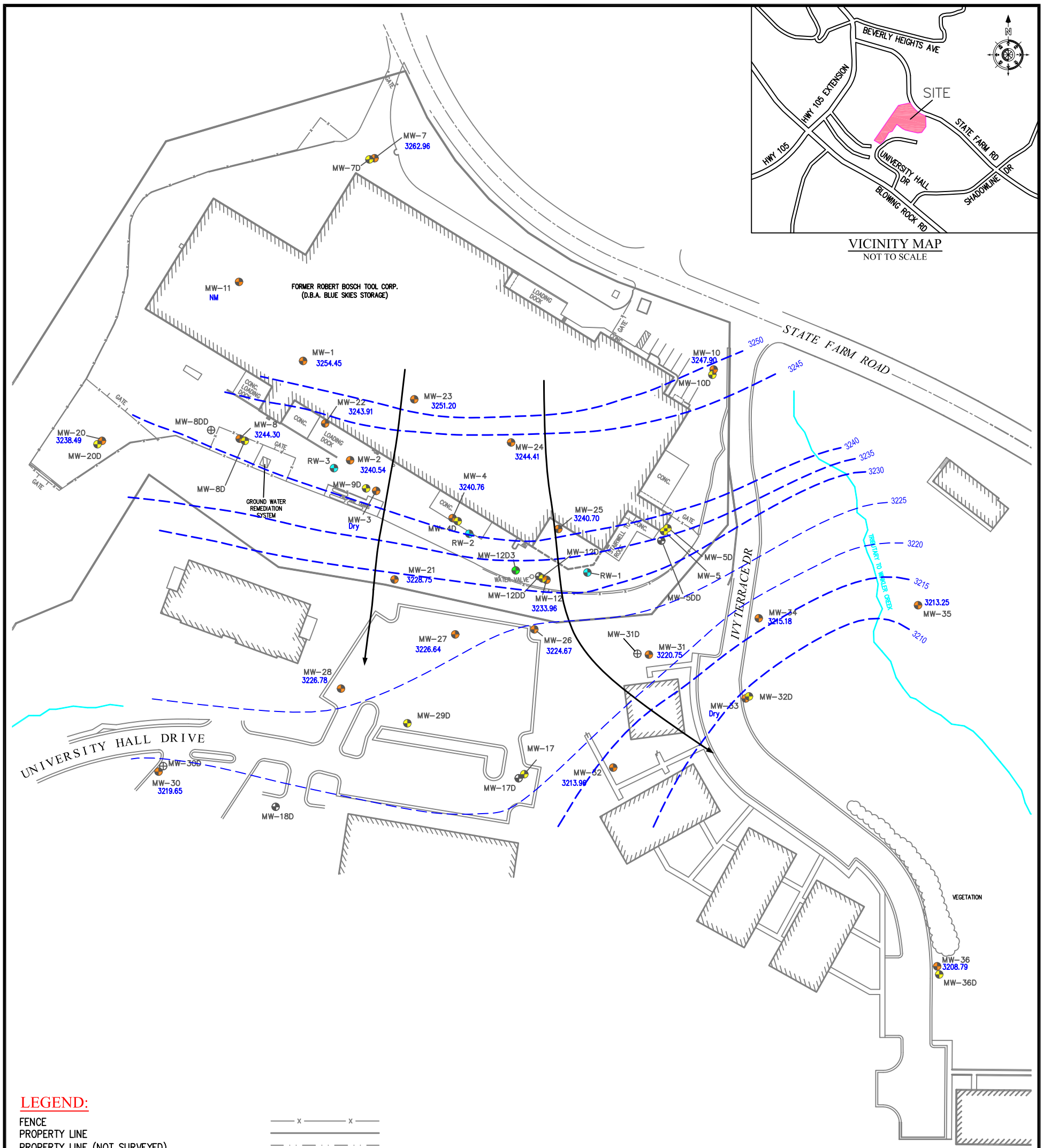
SITE LAYOUT MAP

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE 1.2

Path: P:\Environmental\2012\1001 RBTC Boone\Phase 03 2015 Activities\Task 01 Soil Remediation\SOIL RAP\Figures\FIG 1.2 Surveyed Site Layout Plan.dwg [11X17 Site Plan]
Date: February 25, 2016 - 7:01am By: paul.johnstone

Path: P:\Environmental\2012\1001 RBTC Boone\Phase 03 2015 Activities\Task 01 Soil Remediation\SOIL RAP\Figures\FIG 1.3 Overburden Aquifer Water Table Contour Map_3Q15.dwg [17x11]
Date: February 25, 2016 - 7:02am By: paul.johnstone



Notes:
1. Inferred water level contours based on groundwater data obtained from monitoring wells completed in overburden aquifer only.
2. Elevations measured in feet above mean sea level (ft MSL).

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Overburden Aquifer, Water Level Elevation Contour Map
September 2015

JOB:	6251-12-1001
LT,LNG:	.
SCALE:	1" = 100'
DRAWN:	P. Johnstone
CHKD:	Z. Downes
PM:	P. Johnstone
DATE:	12/28/2015

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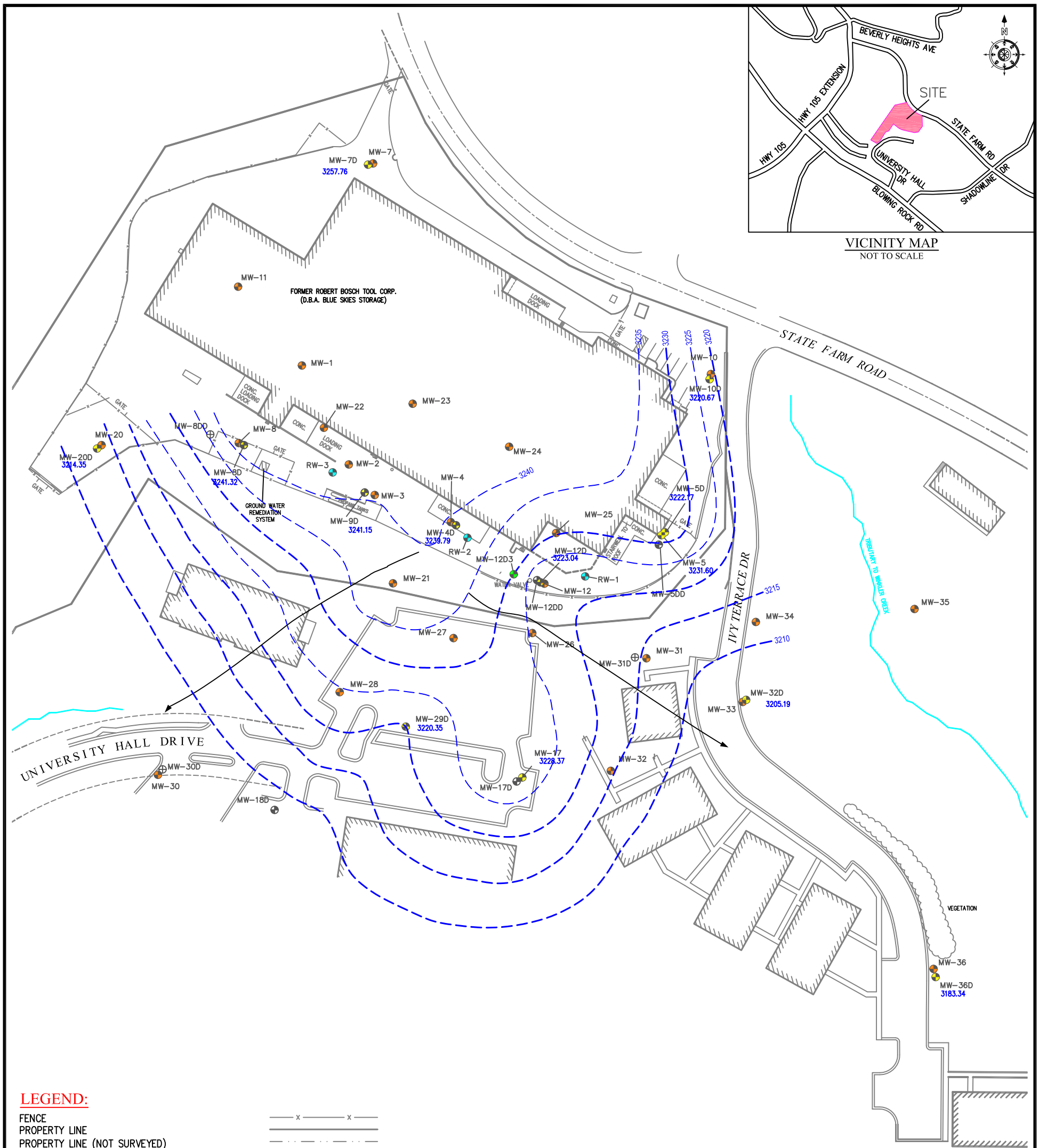
FIGURE NO.
1.3

PROJECT NO.
6251-12-1001

Path: P:\Environmental\2012\1001 RBTC Boone\Phase 03 2015 Activities\Task 01 Soil Remediation\SOIL RAP\Figures\FIG 1.4 Upper Bedrock Potentiometric Surface Contour Map_3Q15.dwg [17x11]
Date: February 25, 2016 - 7:04am By: paul.johnstone



LEGEND:

FENCE	x — x
PROPERTY LINE	
PROPERTY LINE (NOT SURVEYED)	
RIGHT-OF-WAY	
RIGHT-OF-WAY (NOT SURVEYED)	
UPPER BEDROCK MONITORING WELL LOCATION	MW-4D
MIDDLE BEDROCK MONITORING WELL LOCATION	MW-12DD (NOT USED FOR CONTOURING)
LOWER BEDROCK MONITORING WELL LOCATION	MW-12D3 (NOT USED FOR CONTOURING)
OVERBURDEN MONITORING WELL LOCATION	MW-1 (NOT USED FOR CONTOURING)
RECOVERY WELL LOCATION	RW-1 (NOT USED FOR CONTOURING)
MONITORING WELL LOCATION (ABANDONED)	MW-8DD
POTENTIOMETRIC CONTOUR	3240
GROUNDWATER ELEVATION (FT MSL)	3190.85
GROUNDWATER FLOW DIRECTION	

Notes:
1. Inferred potentiometric contours based on groundwater data obtained from monitoring wells completed in upper bedrock aquifer only.
2. Elevations measured in feet above mean sea level (ft MSL).
3. MW-5 and MW-5D are both screened in the upper bedrock. Contours reflect data from MW-5.

N

0 50' 100' 200'

SCALE: 1" = 100'-0"

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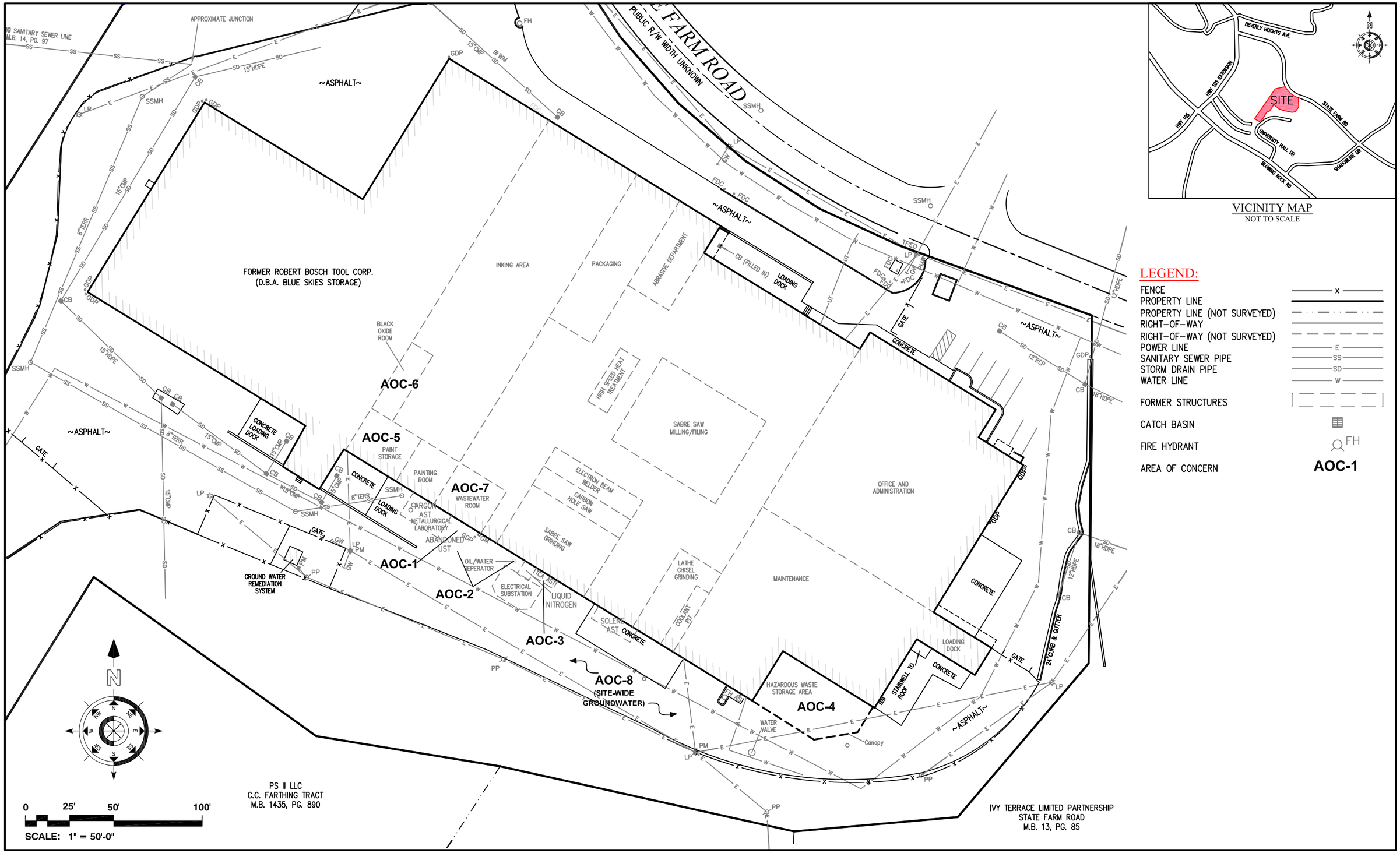
Upper Bedrock Aquifer, Water Level Elevation Contour Map - September 2015

JOB:	6251-12-1001
LT,LNG:	.
SCALE:	1" = 100'
DRAWN:	P. Johnstone
CHKD:	Z. Downes
PM:	P. Johnstone
DATE:	12/28/2015

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE NO. **1.4**

PROJECT NO. 6251-12-1001



DRAWN	DDS	DATE	03/16/15	REVISIONS	
CHECKED	TSR	FILE	Figure 1.5	No. / DESCRIPTION / BY	
APPROVED	PSJ	JOB NO:	6251121001.03.01		

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AREA OF CONCERN LOCATION MAP

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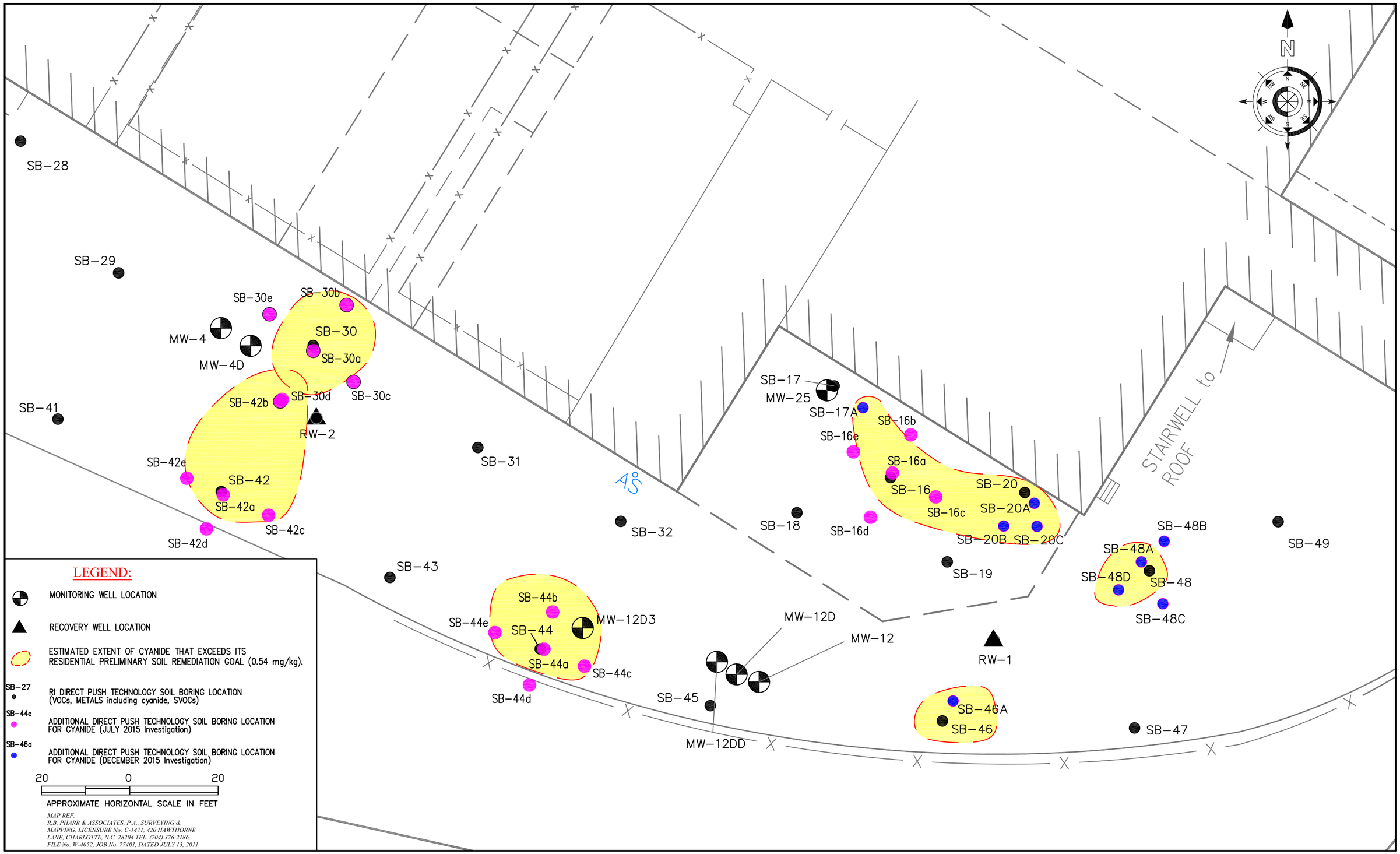
BOONE, NORTH CAROLINA

FIGURE 1.5

Path: P:\Environmental\2012\1001 RBTC Boone\Phase 03 2015 Activities\Task 01 Soil Remediation\SOIL RAP\Figures\FIG 1.5_AOC MAP.dwg [11X17 AS Location Map]
Date: February 25, 2016 - 7:05am By: paul.johnstone



DRAWN	ZJD	DATE	2/3/15
CHECKED	TSR	FILE	Figure 1.7
APPROVED	PSJ	JOB NO:	6251121001.03.01

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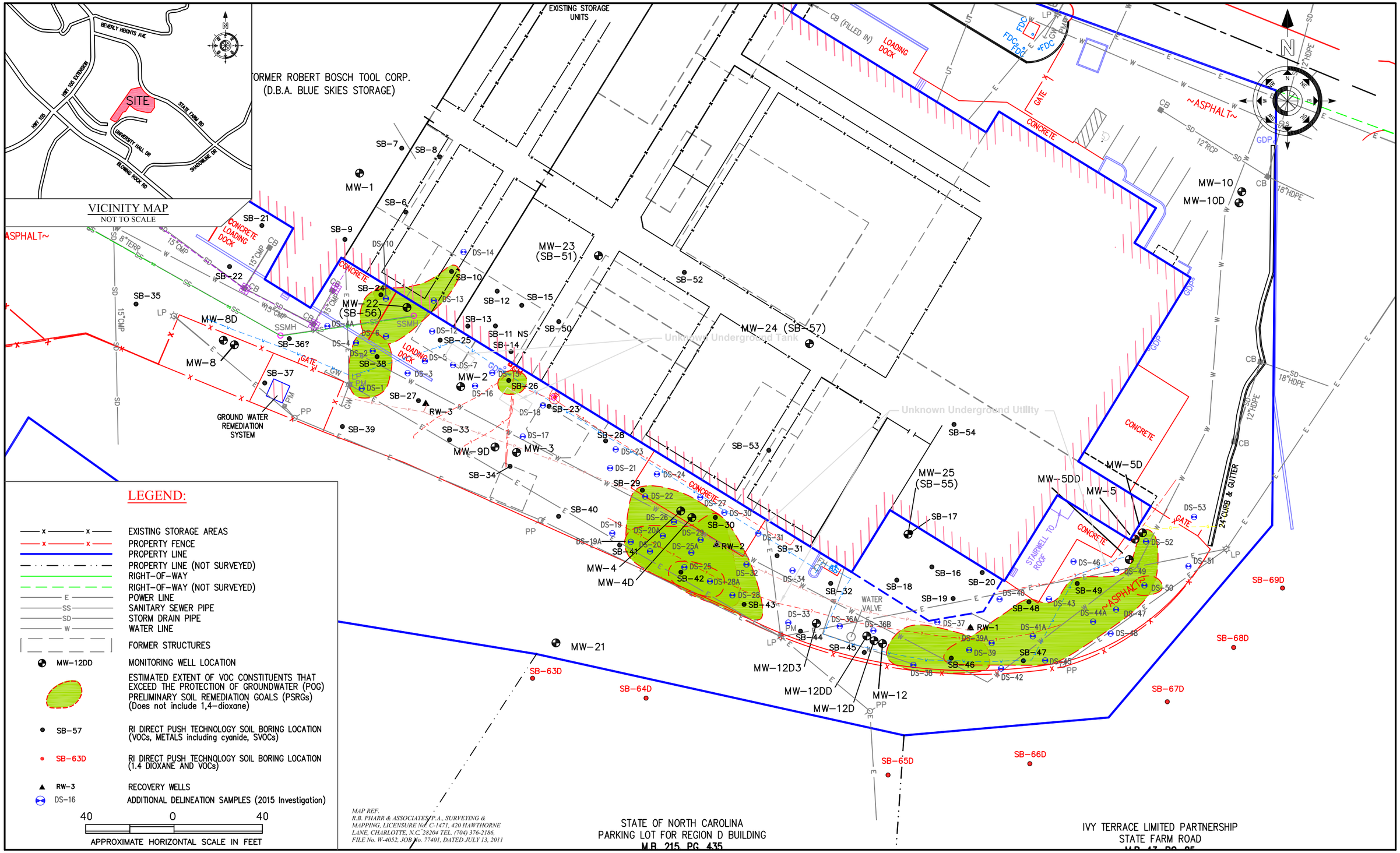
SOIL BORING LOCATIONS AND ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH TOTAL CYANIDE

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE 1.6



DRAWN	ZJD	DATE	1/08/16
CHECKED	TSR	FILE	Figure 1.6
APPROVED	PSJ	JOB NO:	6251121001.03.01

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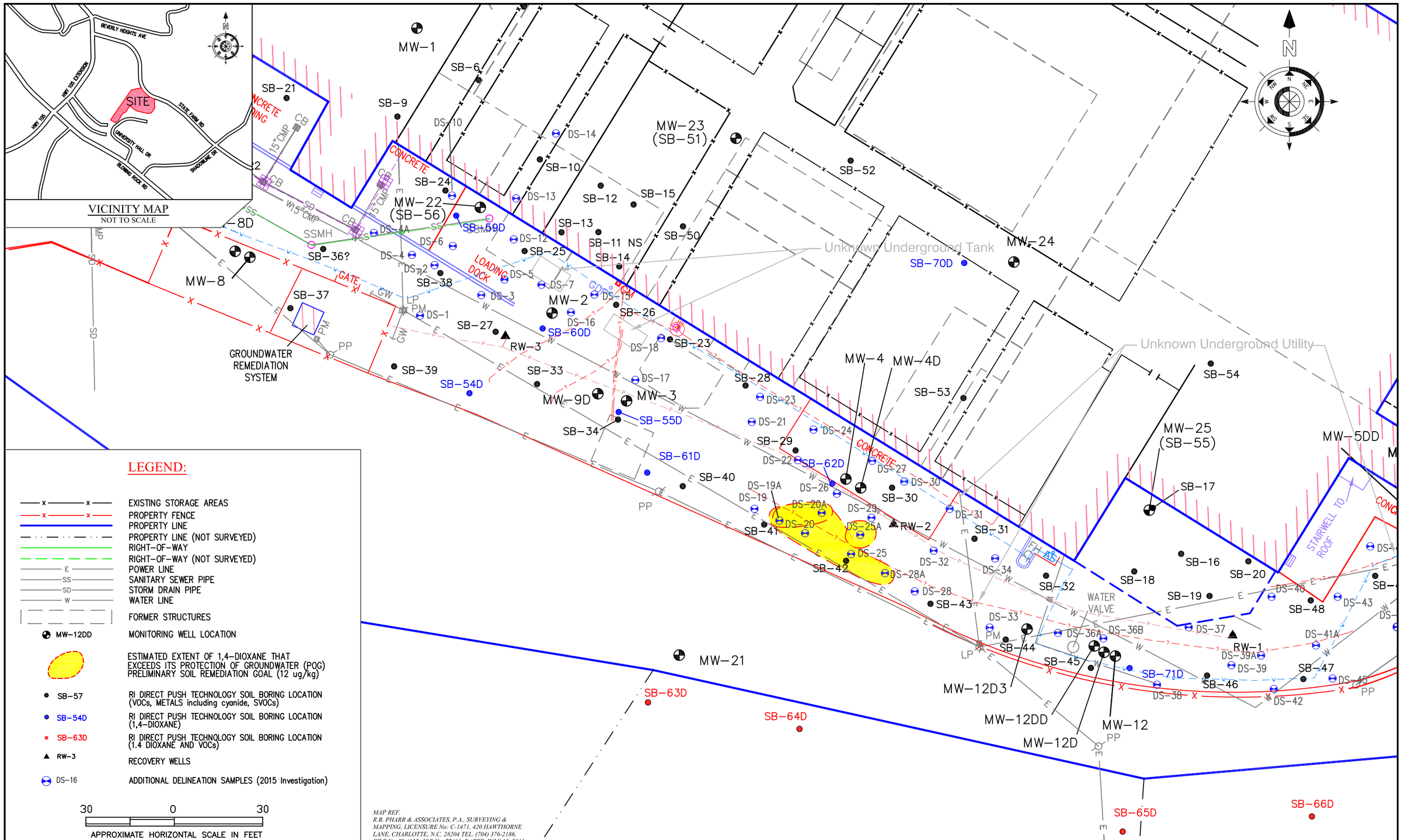
SOIL BORING LOCATIONS AND ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH VOCs

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.7



DRAWN	ZJD	DATE	1/15/16
CHECKED	TSR	FILE	Figure 1.8
APPROVED	PSJ	JOB NO:	6251121001.03.01

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SOIL BORING LOCATIONS AND ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH 1,4 DIOXANE

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BOONE, NORTH CAROLINA

FIGURE 1.8

Data Source: 2010 Orthoimagery, http://imagery.NCOneMap.com.

0 100 200 400 Feet

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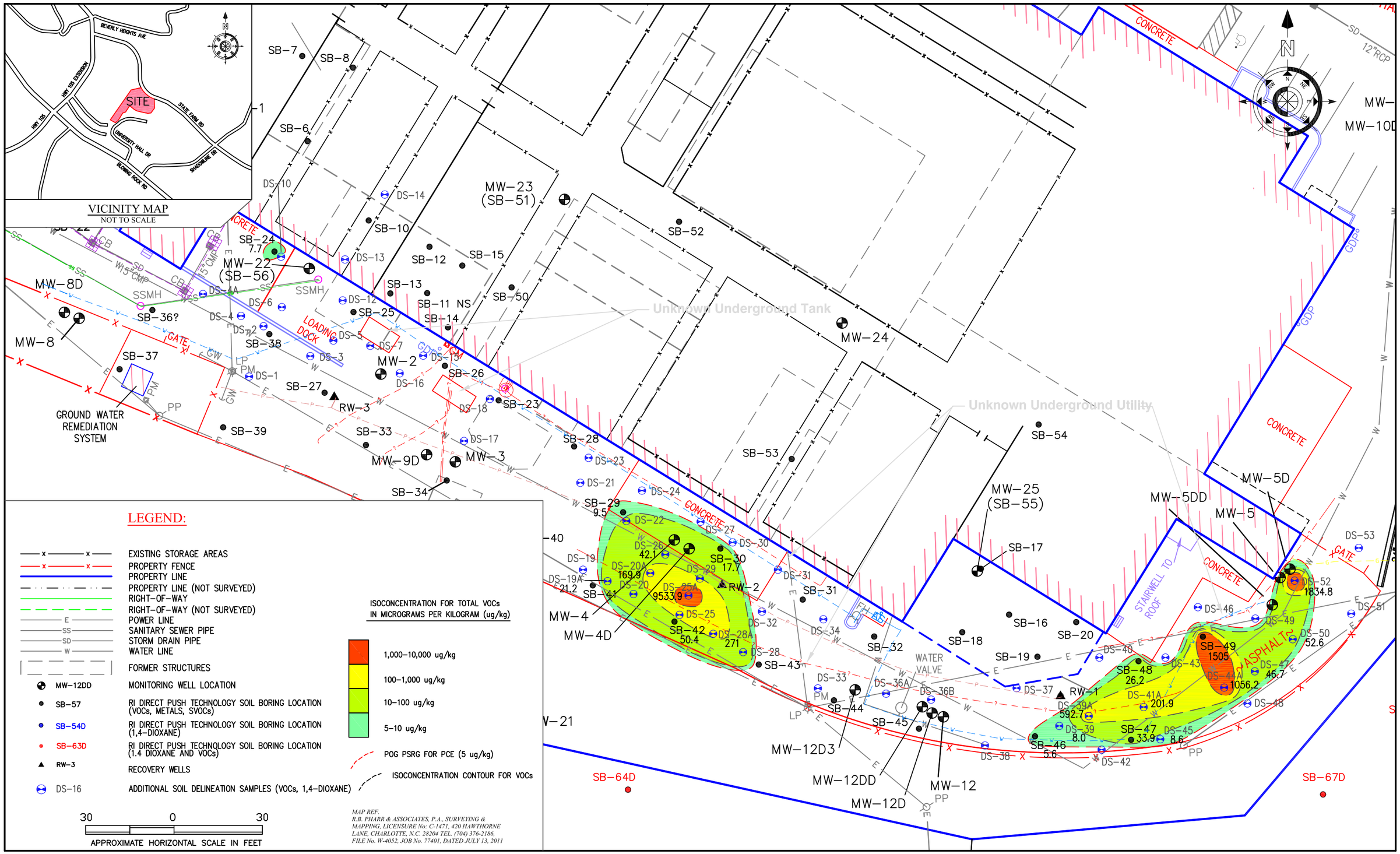
JOB:	6251-12-1001
DATE:	10/15/15
SCALE:	AS SHOWN
DRAWN:	SJM
REVD:	JMS
CHKD:	TSR
DATE:	10/15/15

SURFACE WATER AND SEDIMENT SAMPLE LOCATION MAP

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE NO. **1.9**

PROJECT NO. 6680-04-9513



DRAWN	ZJD	DATE	2/1/16
CHECKED	TSR	FILE	Figure 1.10
APPROVED	PSJ	JOB NO:	6251121001.03.01

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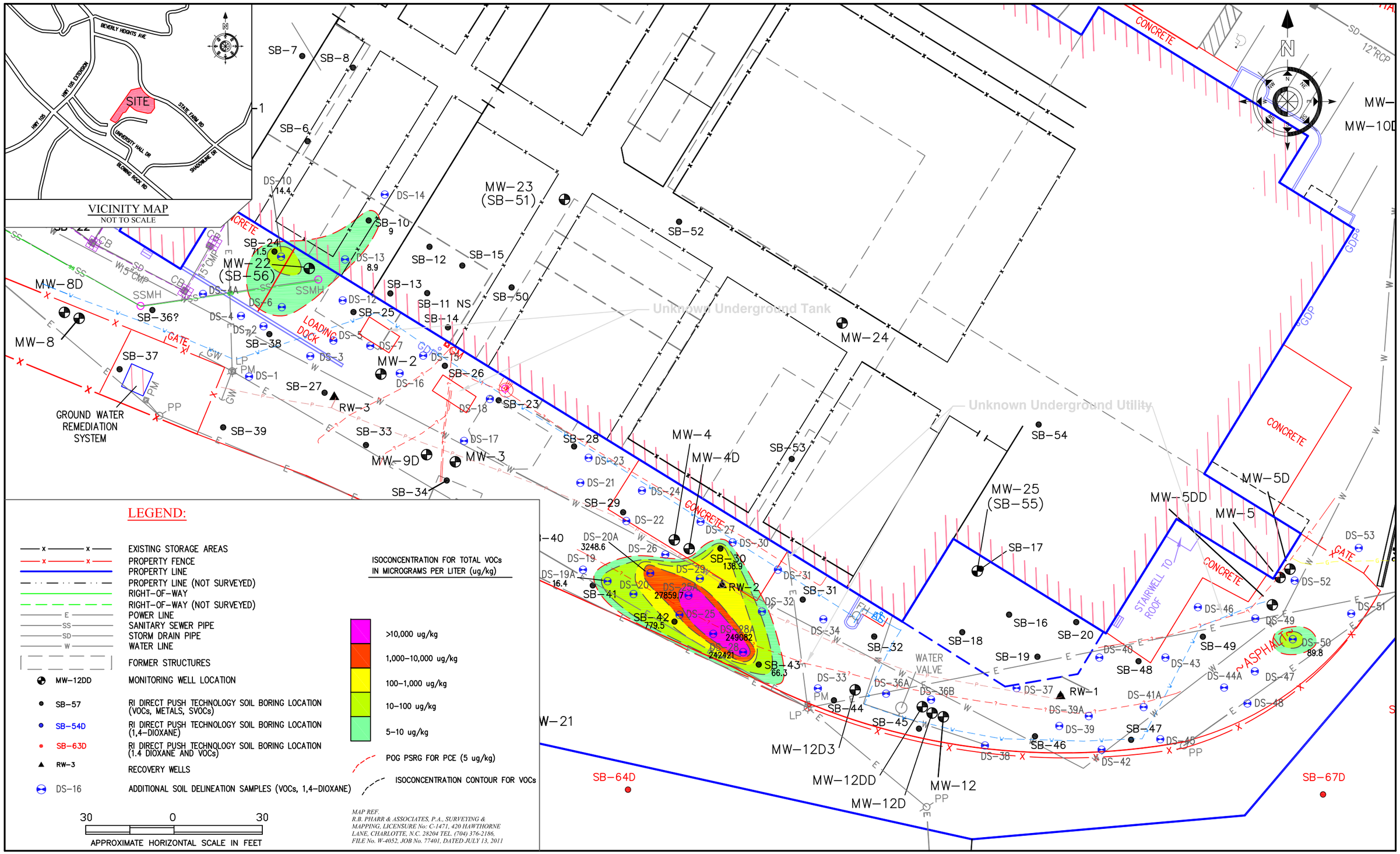
ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH VOCS ABOVE POG PSRGs (0 - 5 feet bgs)

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.10



DRAWN	ZJD	DATE	2/1/16
CHECKED	TSR	FILE	Figure 1.11
APPROVED	PSJ	JOB NO:	6251121001.03.01

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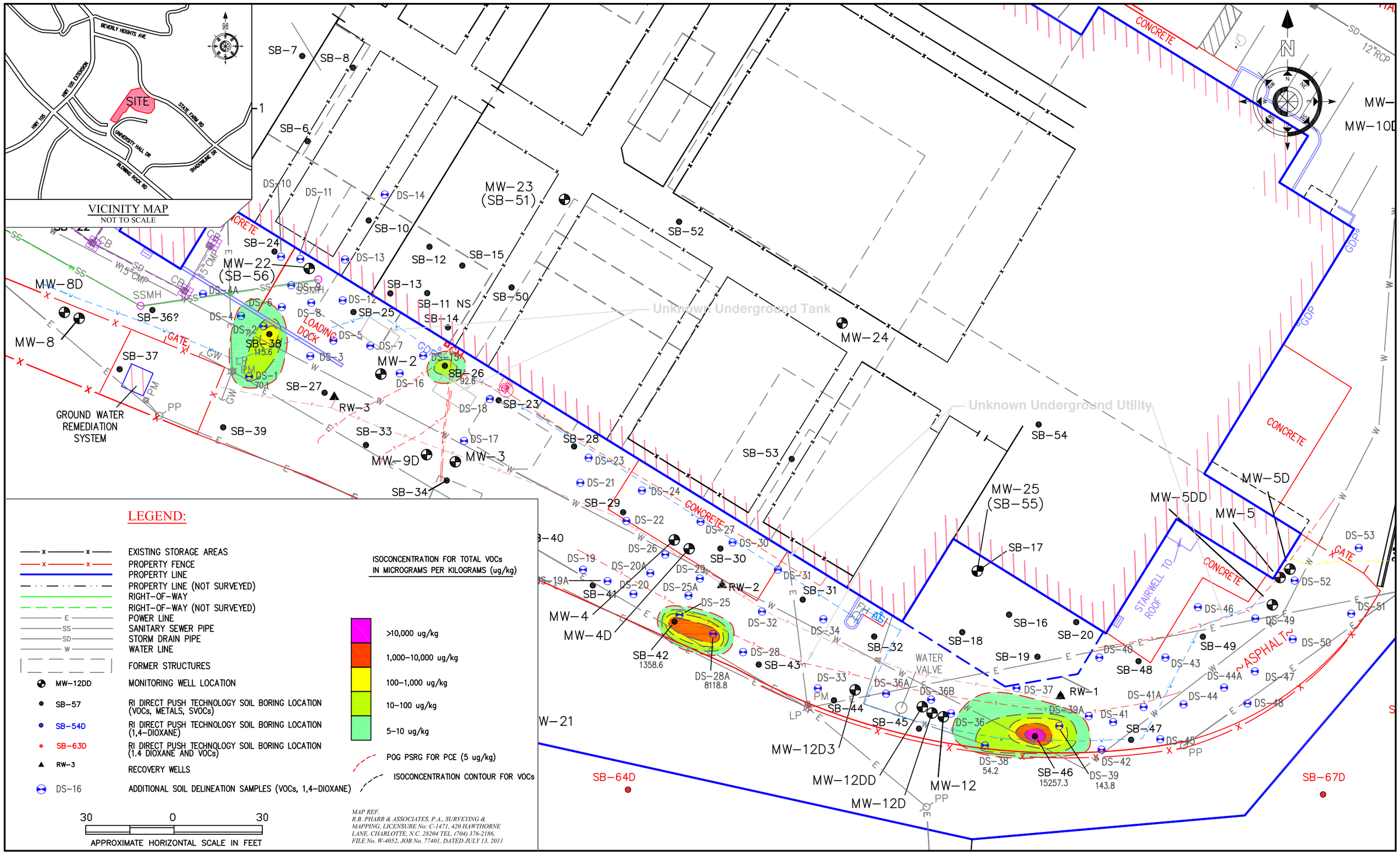
ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH VOCs ABOVE POG PSRGs (5 - 15 feet bgs)

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.11



DRAWN	ZJD	DATE	2/17/16
CHECKED	LLM	FILE	Figure 1.11
APPROVED	PSJ	JOB NO:	6251121001.03.01

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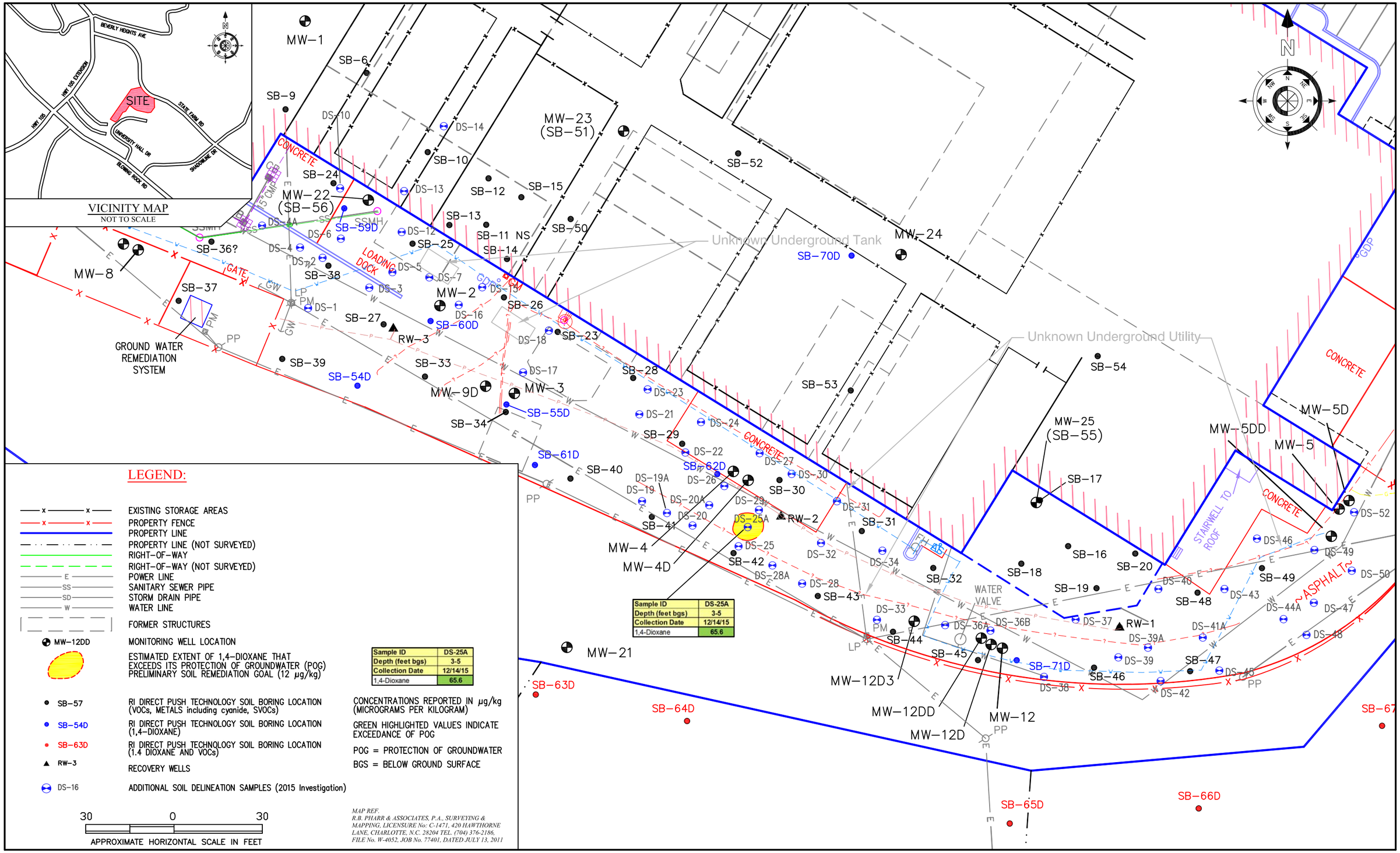
ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH VOCs ABOVE POG PSRGs (15 - 30 feet, bgs)

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.11



DRAWN	ZJD	DATE	1/15/16
CHECKED	TSR	FILE	FIGURE 1.13
APPROVED	PSJ	JOB NO:	6251121001.03.01

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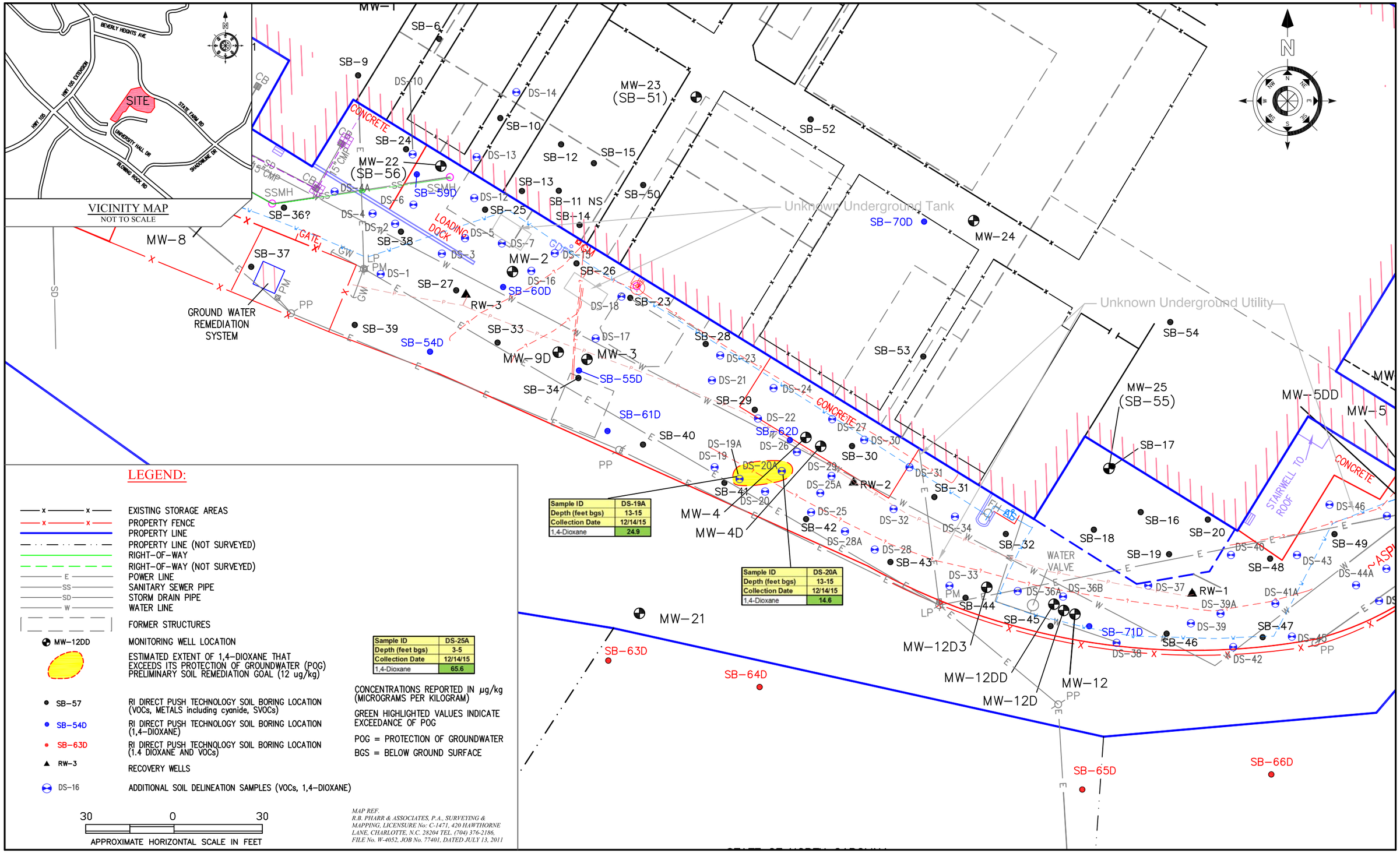
ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH 1,4-DIOXANE ABOVE POG PSRG (0 - 5 feet bgs)

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.13



DRAWN	ZJD	DATE	1/15/16
CHECKED	TSR	FILE	Figure 1.14
APPROVED	PSJ	JOB NO:	6251121001.03.01

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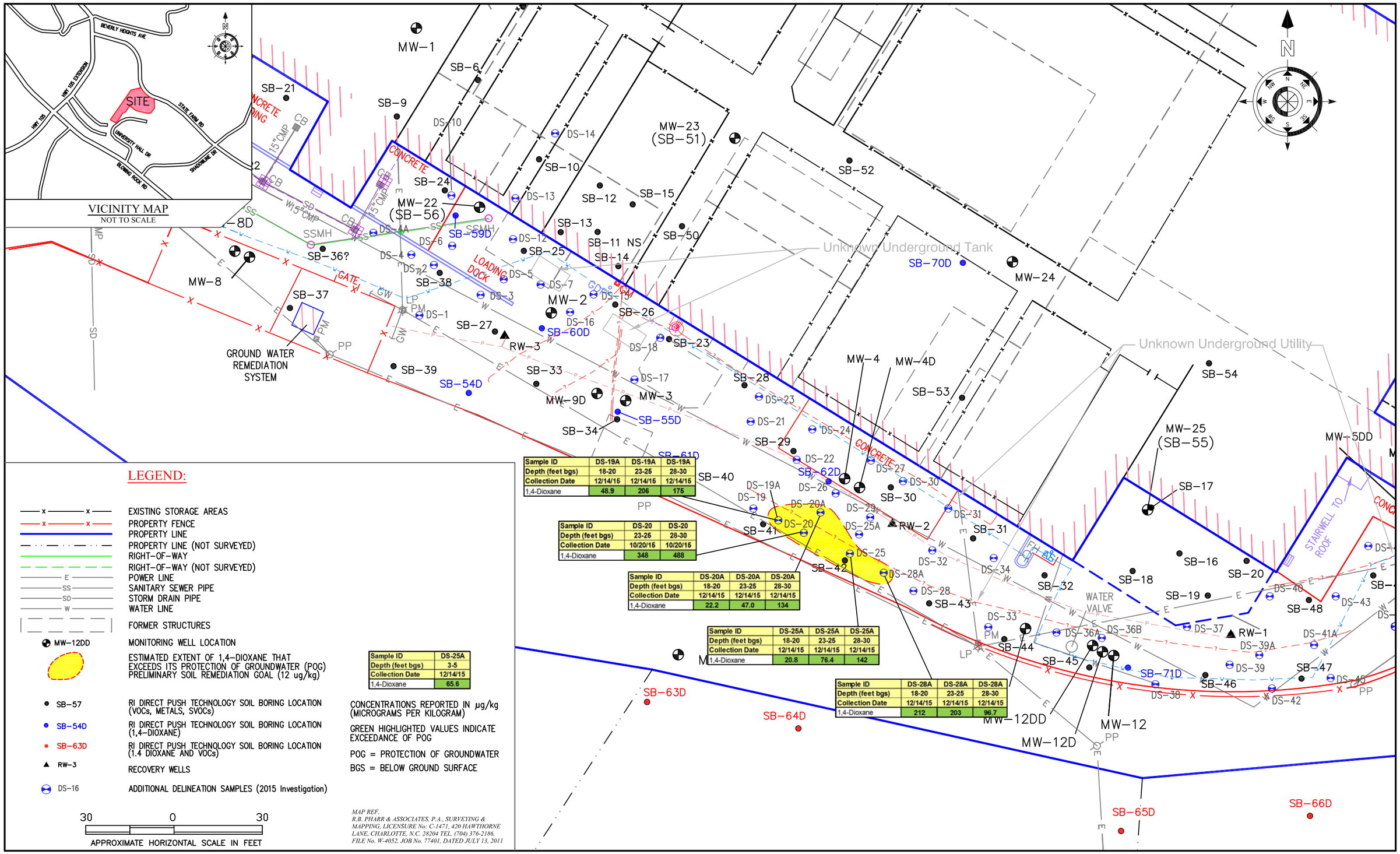
ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH 1,4-DIOXANE ABOVE POG PSRG (5 - 15 feet bgs)

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.14



Sample ID	DS-19A	DS-19A	DS-19A
Depth (feet bgs)	18-20	23-25	28-30
Collection Date	12/14/15	12/14/15	12/14/15
1,4-Dioxane	48.9	206	175

Sample ID	DS-20	DS-20
Depth (feet bgs)	23-25	28-30
Collection Date	10/20/15	10/20/15
1,4-Dioxane	348	488

Sample ID	DS-20A	DS-20A	DS-20A
Depth (feet bgs)	18-20	23-25	28-30
Collection Date	12/14/15	12/14/15	12/14/15
1,4-Dioxane	22.2	47.0	134

Sample ID	DS-25A	DS-25A	DS-25A
Depth (feet bgs)	18-20	23-25	28-30
Collection Date	12/14/15	12/14/15	12/14/15
1,4-Dioxane	20.8	76.4	142

Sample ID	DS-28A	DS-28A	DS-28A
Depth (feet bgs)	18-20	23-25	28-30
Collection Date	12/14/15	12/14/15	12/14/15
1,4-Dioxane	212	203	96.7

Sample ID	DS-25A
Depth (feet bgs)	3-5
Collection Date	12/14/15
1,4-Dioxane	65.6

DRAWN	ZJD	DATE	1/15/16
CHECKED	TSR	FILE	Figure 1.15
APPROVED	PSJ	JOB NO:	6251121001.03.01

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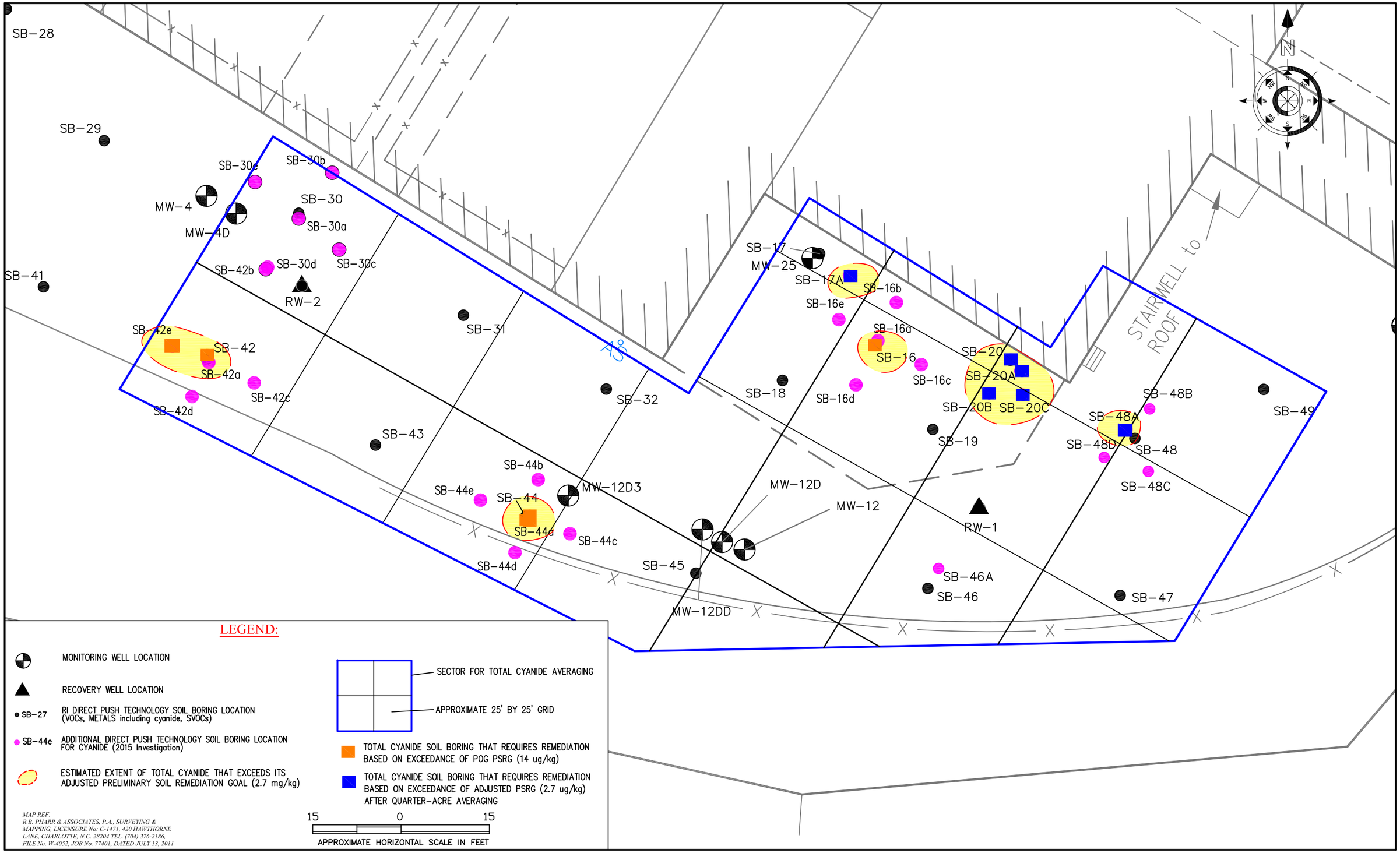
ESTIMATED AREAL EXTENT OF SOILS IMPACTED WITH 1,4-DIOXANE ABOVE POG PSRG (15 - 30 feet bgs)

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 1.15



DRAWN	ZJD	DATE	1/15/16
CHECKED	TSR	FILE	Figure 2.1
APPROVED	PSJ	JOB NO:	6251121001.03.01

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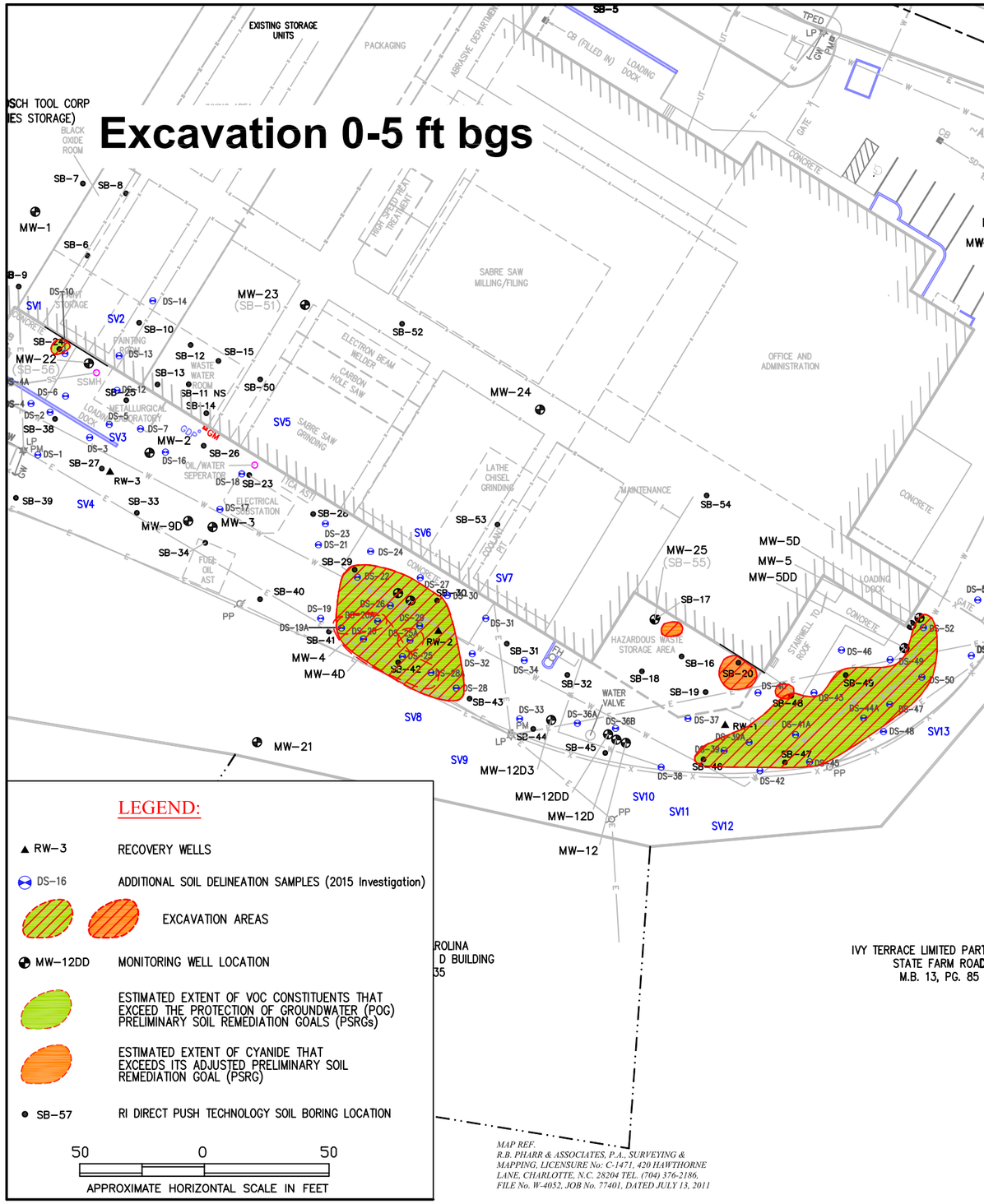
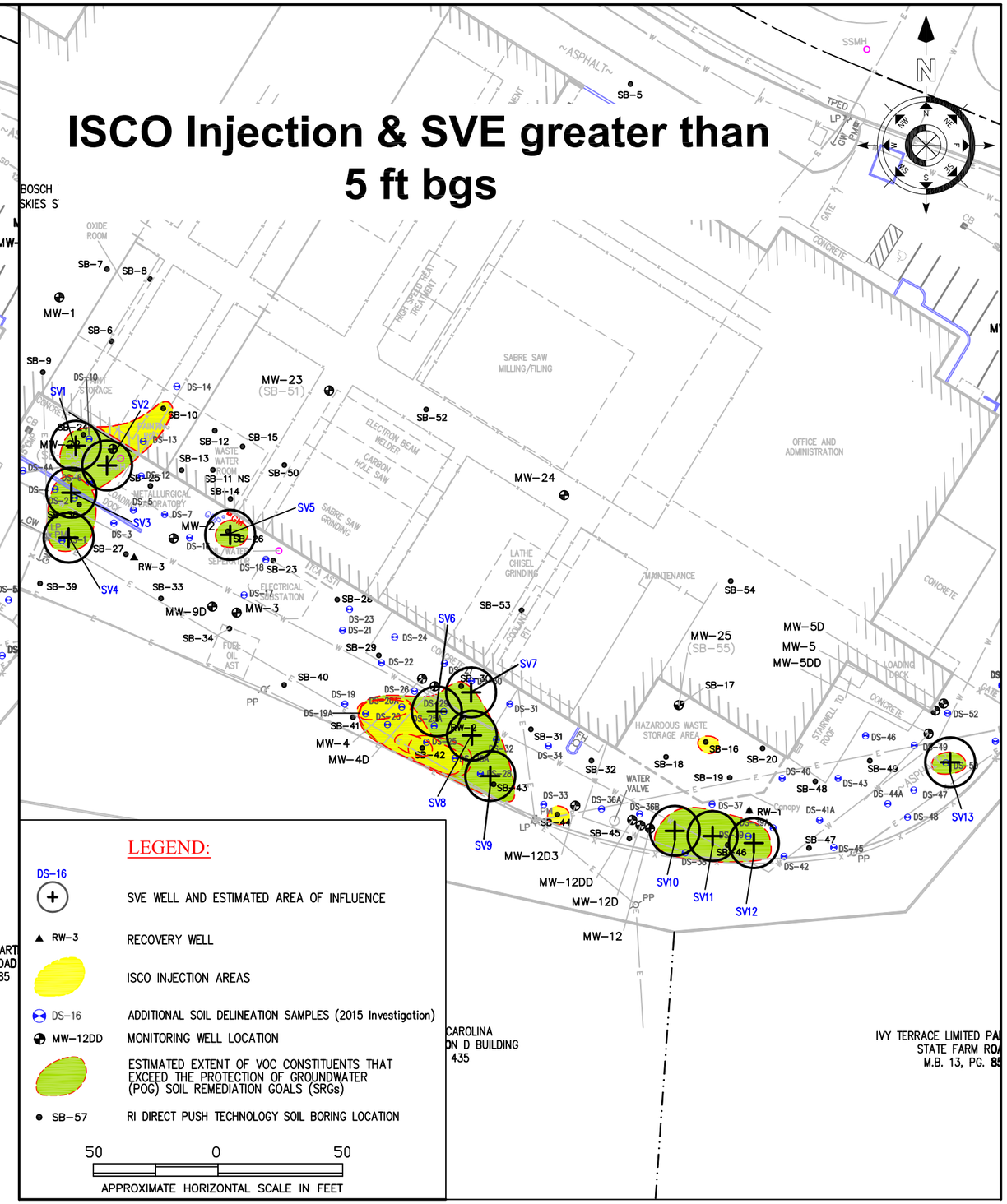
QUARTER-ACRE AVERAGING SECTOR FOR TOTAL CYANIDE AND SAMPLE LOCATIONS REQUIRING REMEDIATION

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 2.1





DRAWN	ZJD	DATE	02/24/16
CHECKED	TSR	FILE	Figure 2.2
APPROVED	PSJ	JOB NO:	6251121001.03.01

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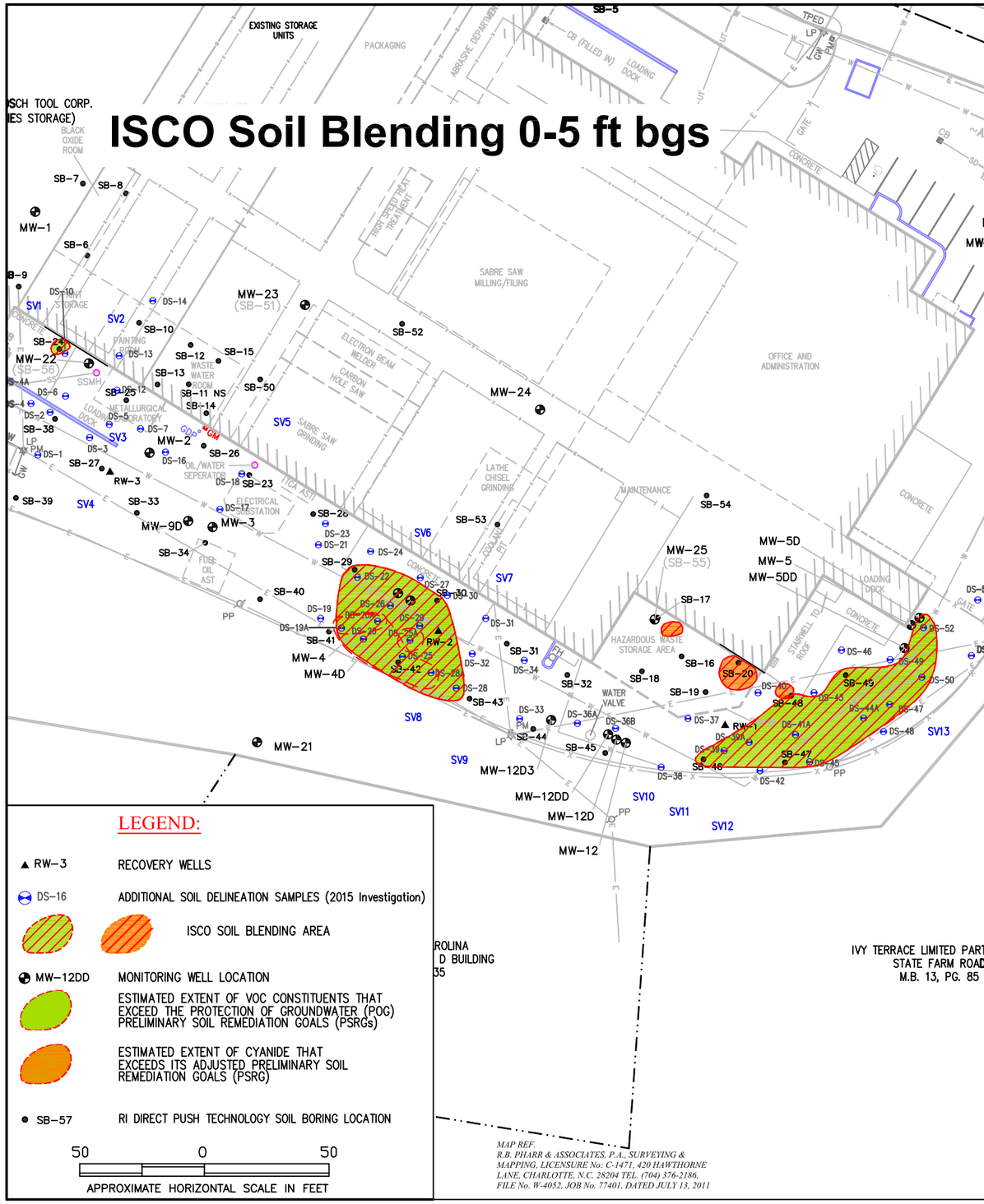
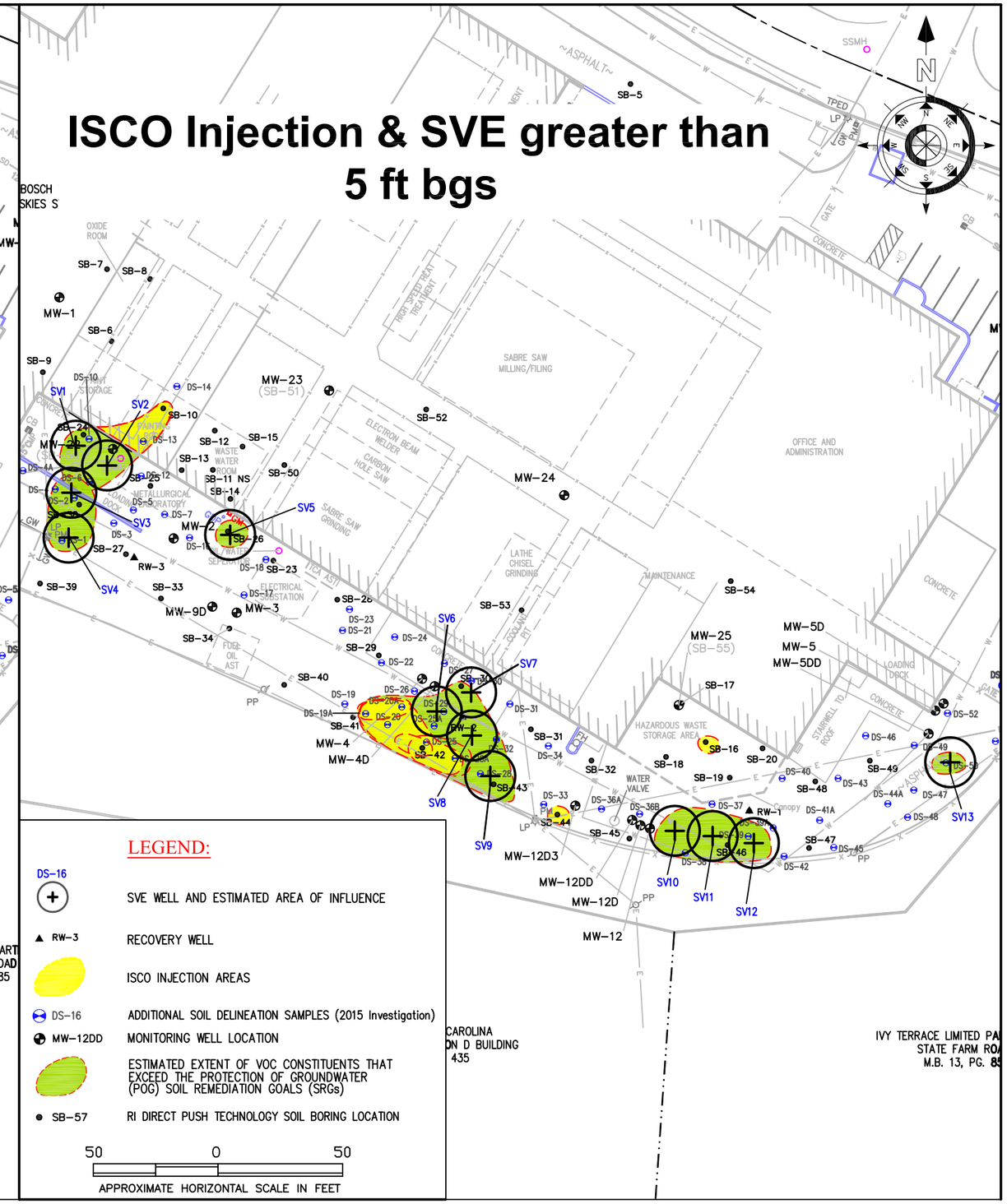
ALTERNATIVE S1: SURFACE EXCAVATION/SUBSURFACE ISCO INJECTION/SVE

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 2.2





DRAWN	ZJD	DATE	02/24/16
CHECKED	TSR	FILE	Figure 2.3
APPROVED	PSJ	JOB NO:	6251121001.03.01

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No.	DESCRIPTION	BY

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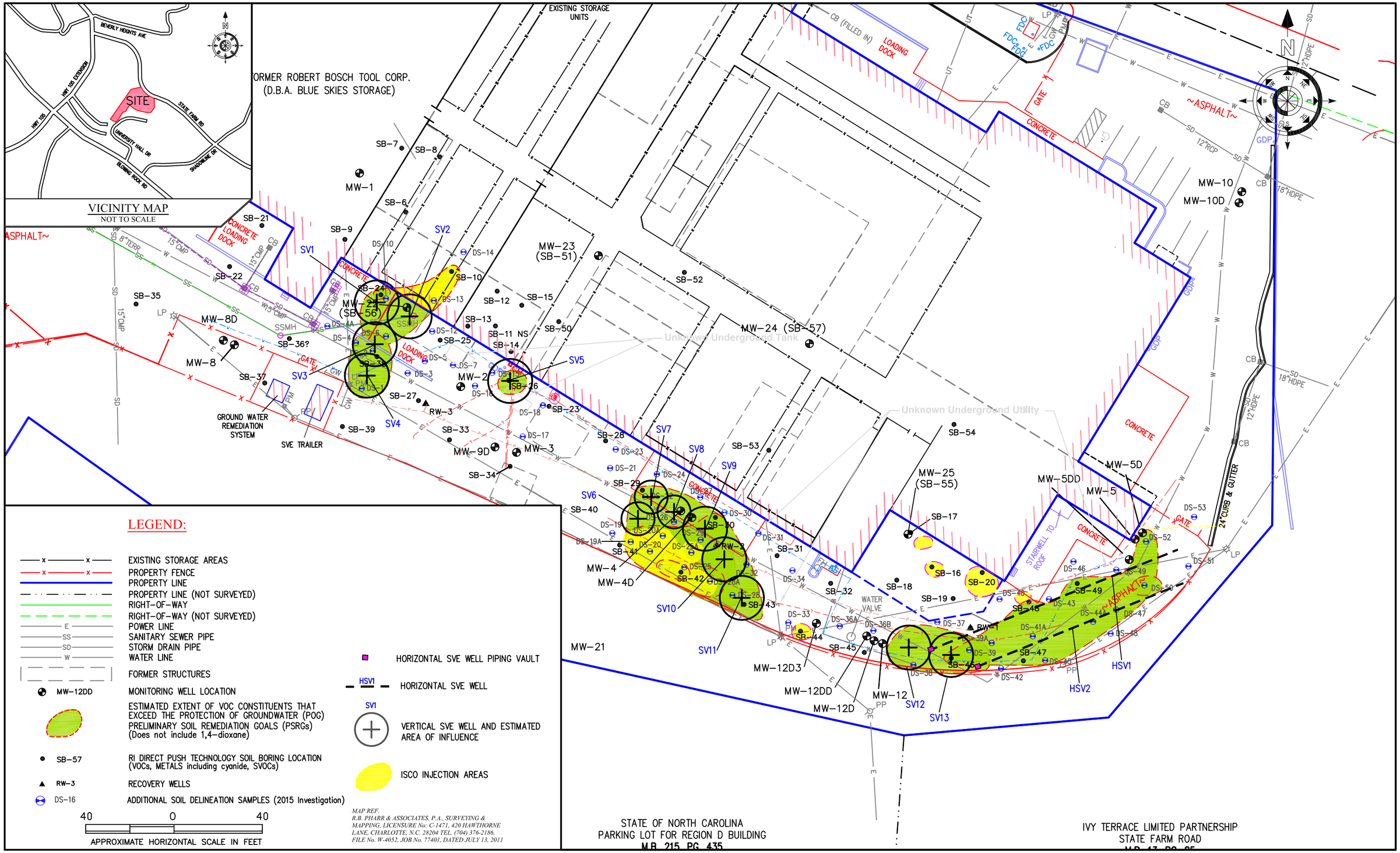
ALTERNATIVE S2: SURFACE ISCO BLENDING/SUBSURFACE ISCO INJECTION/SVE

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 2.3



DRAWN	ZJD	DATE	02/24/2016
CHECKED	TSR	FILE	Figure 2.4
APPROVED	PSJ	JOB NO:	6251121001.03.01

REVISIONS		
No.	DESCRIPTION	BY

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ALTERNATIVE S3: SURFACE AND SUBSURFACE ISCO INJECTION/SVE

RBTC FORMER BOONE DIVISION

BOONE, NORTH CAROLINA

FIGURE 2.4

LEGEND

HORIZONTAL SVE WELL PIPING VAULT

SB-40 — DIRECT-PUSH SOIL BORING AND SAMPLE COLLECTION INTERVAL

3" PVC DIRECT-PUSH HORIZONTAL SVE SLOTTED SCREEN

3" PVC DIRECT-PUSH HORIZONTAL SVE RISER

15 0 15 30

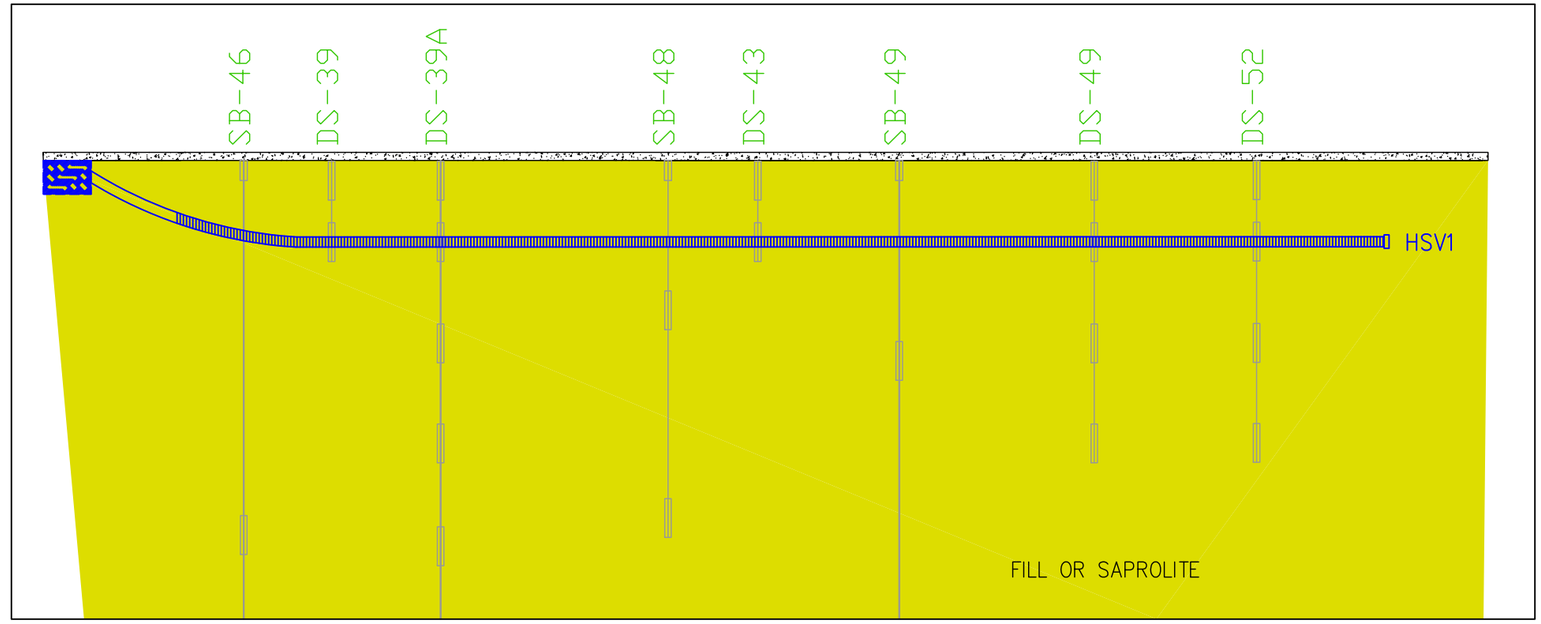
APPROXIMATE HORIZONTAL SCALE IN FEET

7.5 0 7.5 15

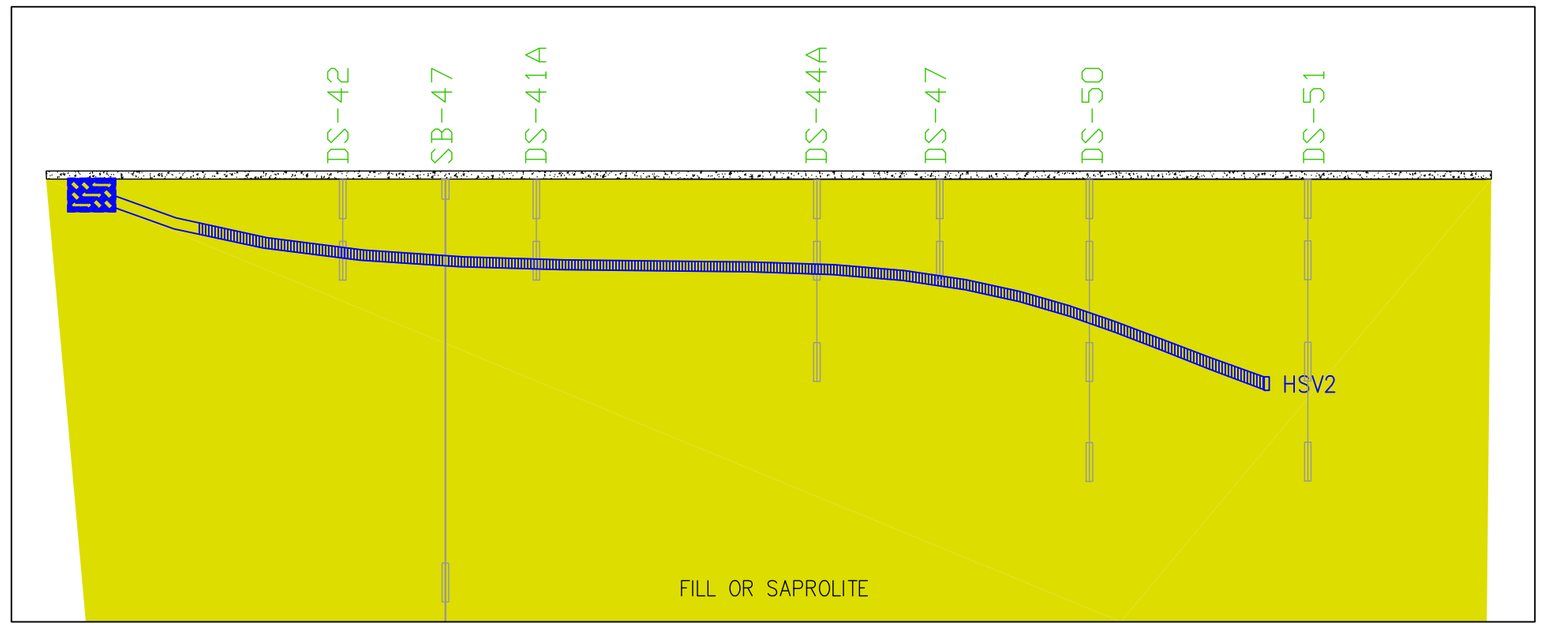
APPROXIMATE VERTICAL SCALE IN FEET

Well	Screen Interval	Bentonite Interval
HSV1	8 - 128	0-6
HSV2	8 - 108	0-6

NOTE:
SEE FIGURE 2.4 FOR PLAN VIEW OF HORIZONTAL SVE WELLS



HORIZONTAL SVE WELL HSV1



HORIZONTAL SVE WELL HSV2

DRAWN	CHB	DATE	02/26/2016
CHECKED	TSR	FILE	Figure 3.1
APPROVED	PSJ	JOB NO:	6251121001.03.01

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HORIZONTAL SVE WELL PROFILES

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE 3.1

APPENDICES

APPENDIX A

DOCUMENT CERTIFICATION STATEMENTS

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 1 OF 2
IHSB SITE NAME Vermont American (NONCD0001139), Boone, NC
DATE & NAME OF DOCUMENT Proposed Remedial Action Plan for Site Soils 03/17/16
TYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

REMEDIATING PARTY DOCUMENT CERTIFICATION STATEMENT (.0306(B)(2))

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Aromake Afiegbe
Name of Remediating Party

Signature of Remediating Party

03/16/16
Date

NOTARIZATION

ILLINOIS (Enter State)

COOK **COUNTY**

I, CARLA WARNER, a Notary Public of said County and State, do hereby certify that Aromake Afiegbe did personally appear and sign before me this day, produced proper identification in the form of Company ID, was duly sworn or affirmed, and declared that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is true and accurate, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal this 16 day of MARCH, 2016.

Carla Warner
Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 1/29/18.

OFFICIAL SEAL
CARLA WARNER
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:07/29/1

Document Certification Form No. DC - I
(Revised 8/11)

IHSB SITE NAME Vermont American (NONCD0001139), Boone, NC
DATE & NAME OF DOCUMENT Proposed Remedial Action Plan for Site Soil 03/17/16
TYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

REGISTERED SITE MANAGER CERTIFICATION OF SIGNATURES

As the Registered Environmental Consultant for the Site for which this filing is made, I certify that the signatures included herewith are genuine and authentic original handwritten signatures and/or true, accurate, and complete copies of the genuine and authentic original handwritten signatures of the persons who purport to sign for this filing. I further certify that I have collected through reliable means the originals and/or copies of said signatures from the persons authorized to sign for this filing who, in fact, signed the originals thereof. Those persons and I understand and agree that any copies of signatures have the same legally binding effect as original handwritten signatures, and I certify that any person for whom I am submitting a copy of their signature has provided me with their express consent to submit said copy. Additionally, I certify that I am authorized to attest to the genuineness and authenticity of the signatures, both originals and any copies, being submitted herewith and that by signing below, I do in fact attest to the genuineness and authenticity of all the signatures, both originals and copies, being submitted for this filing.

Paul S. Johnstone
Name of Registered Site Manager

Signature of Registered Site Manager Date 3/17/16

REGISTERED SITE MANAGER DOCUMENT CERTIFICATION STATEMENT (.0306(b)(1))

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Paul S. Johnstone
Name of Registered Site Manager

Signature of Registered Site Manager Date 3/17/16

NOTARIZATION

South Carolina (Enter State)

Greenville **COUNTY**

I, Serah J. Roy, a Notary Public of said County and State, do hereby certify that Paul S. Johnstone did personally appear and sign before me this day, produced proper identification in the form of SC Drivers License, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 17 day of March, 2016.

Serah J Roy
Notary Public (signature) (OFFICIAL SEAL)

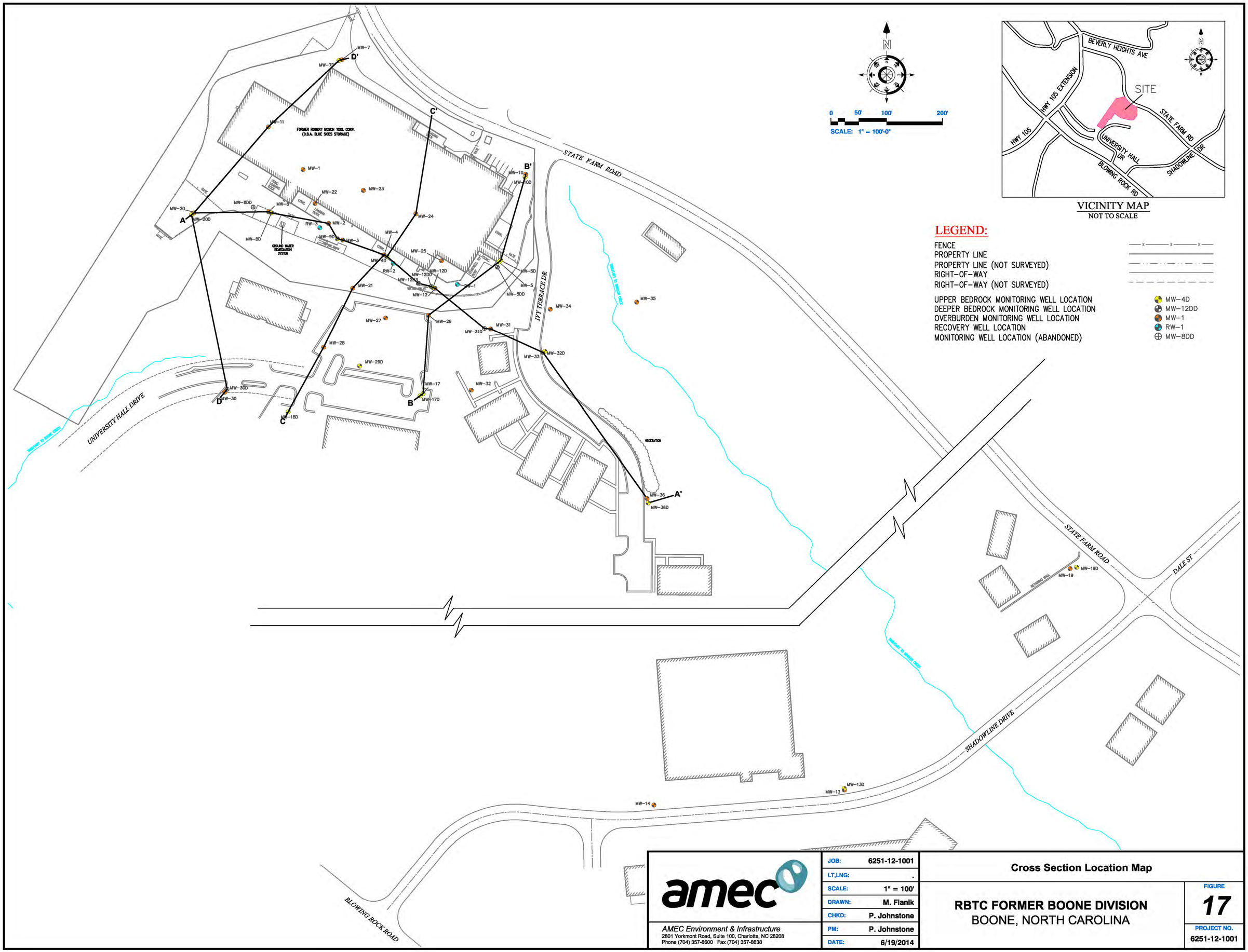
My commission expires: 1/22/20.

SERAH J. ROY NOTARY PUBLIC SOUTH CAROLINA

Document Certification Form No. DC - II
(Revised 8/11)

APPENDIX B

CROSS-SECTION TRANSECTS AND ASSOCIATED GEOLOGICAL CROSS SECTIONS



amec

AMEC Environment & Infrastructure
2801 Yorkmont Road, Suite 100, Charlotte, NC 28208
Phone (704) 357-8600 Fax (704) 357-8638

JOB:	6251-12-1001
LT,LNG:	.
SCALE:	1" = 100'
DRAWN:	M. Flanik
CHKD:	P. Johnstone
PM:	P. Johnstone
DATE:	6/19/2014

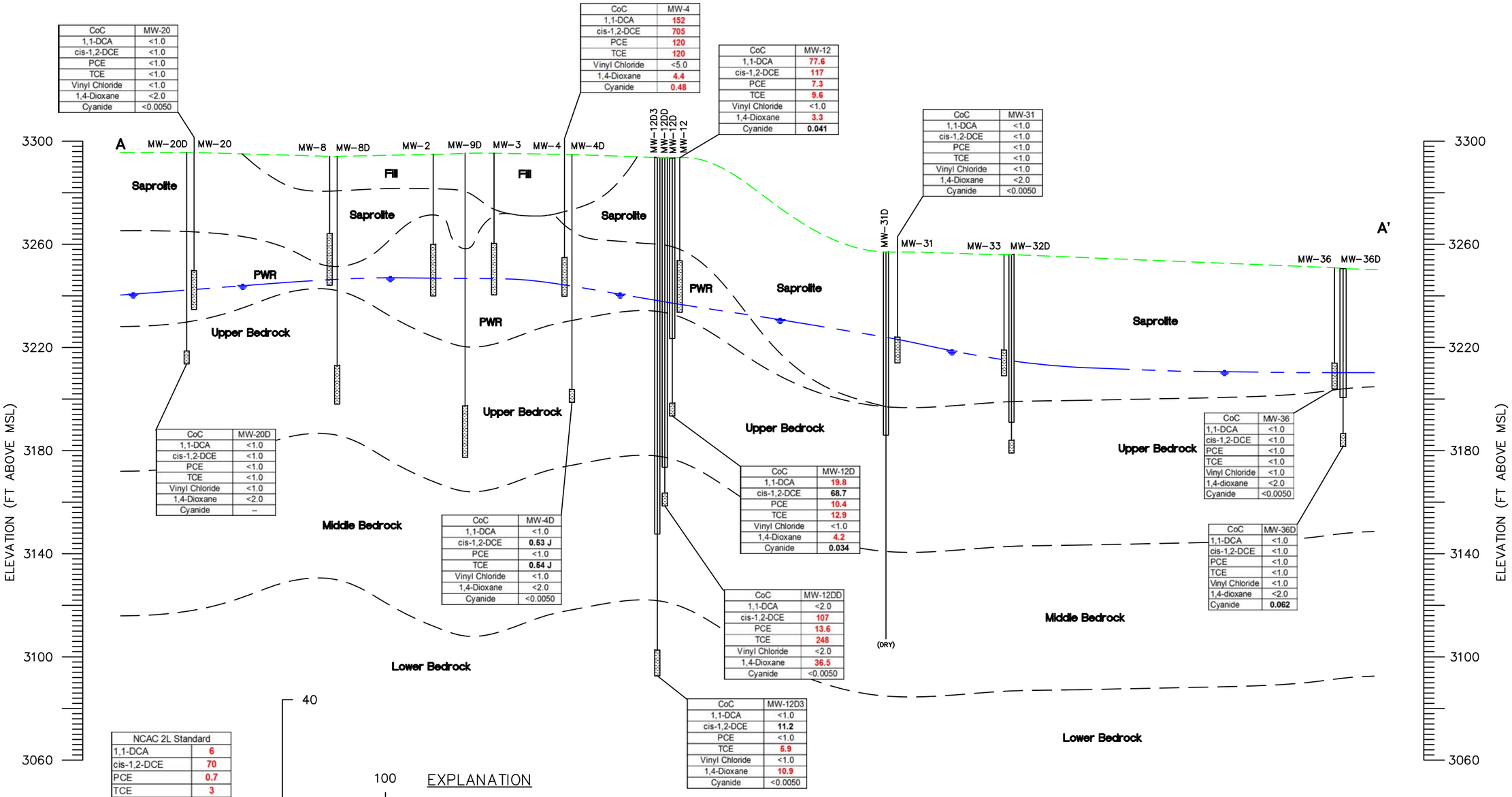
Cross Section Location Map

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE
17

PROJECT NO.
6251-12-1001

Path: \\CLT1-FS1\projects\AutoCAD Drawings Only ~ CHECK OUT BEFORE DELETING\Environmental\Not 6228\6680-04-9613.01 Boone RBTC\RI Addendum #FIG 17 Cross Section Location Map.dwg [18 X 24]
Date: July 09, 2014 - 12:39pm By: michael.flanik



CoC	MW-20
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

CoC	MW-4
1,1-DCA	152
cis-1,2-DCE	705
PCE	120
TCE	120
Vinyl Chloride	<5.0
1,4-Dioxane	4.4
Cyanide	0.48

CoC	MW-12
1,1-DCA	77.6
cis-1,2-DCE	117
PCE	7.3
TCE	9.6
Vinyl Chloride	<1.0
1,4-Dioxane	3.3
Cyanide	0.041

CoC	MW-31
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

CoC	MW-36
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-dioxane	<2.0
Cyanide	<0.0050

CoC	MW-20D
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	--

CoC	MW-4D
1,1-DCA	<1.0
cis-1,2-DCE	0.53 J
PCE	<1.0
TCE	0.54 J
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

CoC	MW-12D
1,1-DCA	19.8
cis-1,2-DCE	68.7
PCE	10.4
TCE	12.9
Vinyl Chloride	<1.0
1,4-Dioxane	4.2
Cyanide	0.034

CoC	MW-36D
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-dioxane	<2.0
Cyanide	0.062

CoC	MW-12DD
1,1-DCA	<2.0
cis-1,2-DCE	107
PCE	13.6
TCE	248
Vinyl Chloride	<2.0
1,4-Dioxane	36.5
Cyanide	<0.0050

CoC	MW-12D3
1,1-DCA	<1.0
cis-1,2-DCE	11.2
PCE	<1.0
TCE	5.9
Vinyl Chloride	<1.0
1,4-Dioxane	10.9
Cyanide	<0.0050

NCAC 2L Standard	
1,1-DCA	6
cis-1,2-DCE	70
PCE	0.7
TCE	3
Vinyl Chloride	0.03
1,4-dioxane	3
Cyanide	0.07

40

100

APPROXIMATE SCALE (FEET)

EXPLANATION

SCREENED INTERVAL

GROUNDWATER ELEVATION

GROUND-SURFACE

INFERRED WATER TABLE SURFACE (DECEMBER 2013)

(excludes deep monitoring wells)

NOTE:
1. WELL NOT INSTALLED AT LOCATION MW-31D BECAUSE BORING WAS DRY; BORE HOLE ABANDONED.
2. BOLD VALUES INDICATE DETECTIONS ABOVE THE LABORATORY REPORTING LIMIT
3. RED VALUES EXCEED THE NCAC 2L STANDARD
4. RESULTS ARE FROM THE DECEMBER 2013 SAMPLING EVENT

LOCATION OF A-A' IS REFERENCED ON CROSS SECTION LOCATION MAP

amec foster wheeler

AMEC Environment & Infrastructure
2801 Yorkmont Road, Suite 100, Charlotte, NC 28208
Phone (704) 357-8600 Fax (704) 357-8638

GEOLOGIC CROSS SECTION A-A'

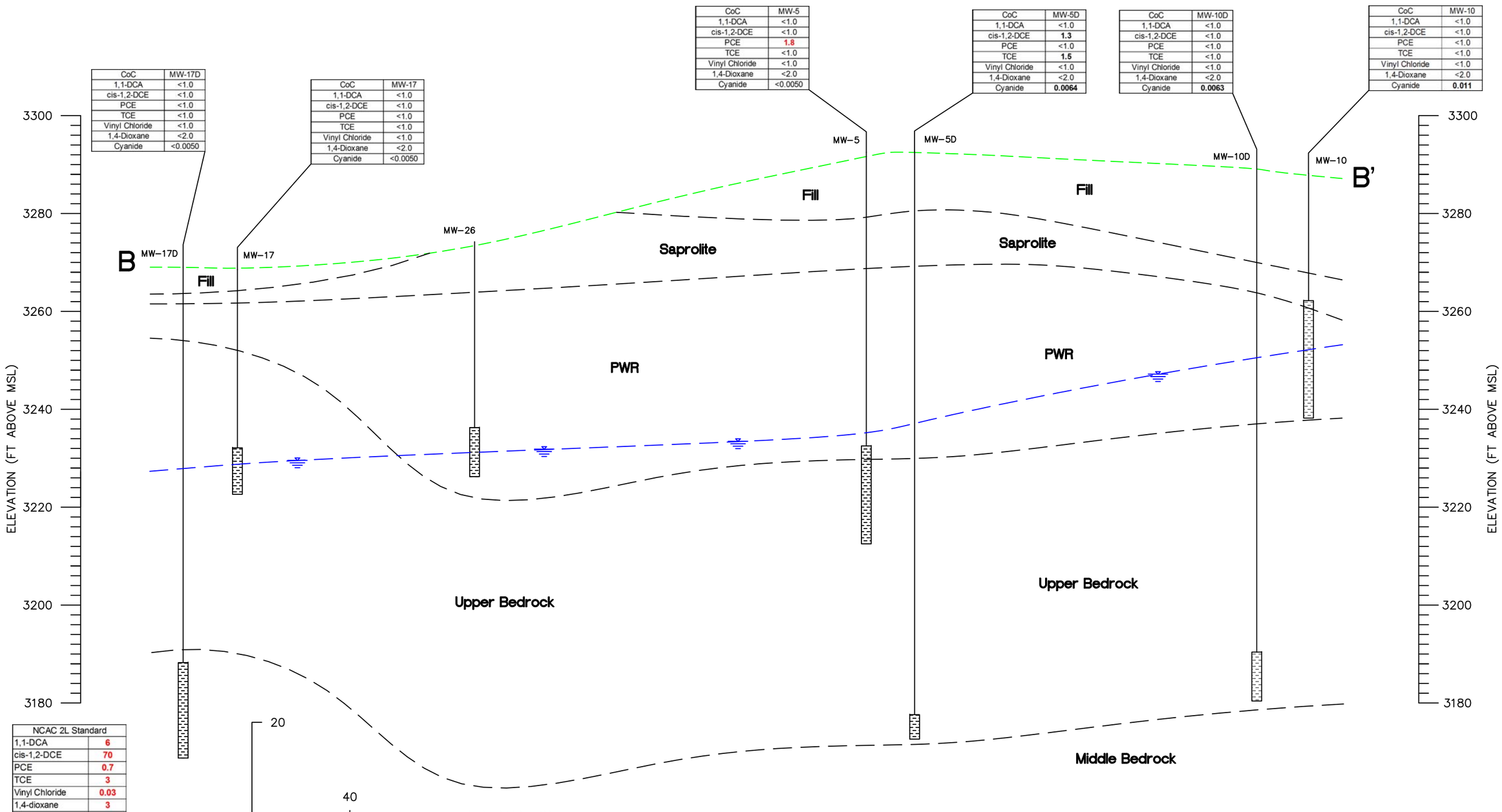
JOB:	6251-12-1001
LT,LNG:	,
SCALE:	AS SHOWN
DRAWN:	M. Flanik
CHKD:	P. Johnstone
PM:	P. Johnstone
DATE:	6/19/14

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE NO. **18**

PROJECT NO. 6251-12-1001

Path: P:\AutoCAD Drawings Only^CHECK OUT BEFORE DELETING\Environmental\Not 6228\6680-04-9513.01 Boone RBTC\RI Addendum #3 - October 2013\Fig 18 PROFILE A-A'.dwg [Layout1]
Date: April 09, 2015 - 12:56pm By: sarah.perry



CoC	MW-17D
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

CoC	MW-17
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

CoC	MW-5
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	**1.8**
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

CoC	MW-5D
1,1-DCA	<1.0
cis-1,2-DCE	**1.3**
PCE	<1.0
TCE	**1.5**
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	**0.0064**

CoC	MW-10D
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	**0.0063**

CoC	MW-10
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	**0.011**

NCAC 2L Standard	
1,1-DCA	6
cis-1,2-DCE	70
PCE	0.7
TCE	3
Vinyl Chloride	0.03
1,4-dioxane	3
Cyanide	0.07

20

40

APPROXIMATE SCALE (FEET)

NOTE:
1. BOLD VALUES INDICATE DETECTIONS ABOVE THE LABORATORY REPORTING LIMIT
2. RED VALUES EXCEED THE NCAC 2L STANDARD
3. RESULTS ARE FROM THE DECEMBER 2013 SAMPLING EVENT

EXPLANATION

SCREENED INTERVAL

GROUNDWATER ELEVATION

GROUND-SURFACE

INFERRED WATER TABLE SURFACE (DECEMBER 3, 2013) (excludes deep monitoring wells)

LOCATION OF B-B' IS REFERENCED ON CROSS SECTION LOCATION MAP

amec foster wheeler

AMEC Environment & Infrastructure
2801 Yorkmont Road, Suite 100, Charlotte, NC 28208
Phone (704) 357-8600 Fax (704) 357-8638

GEOLOGIC CROSS SECTION B-B'

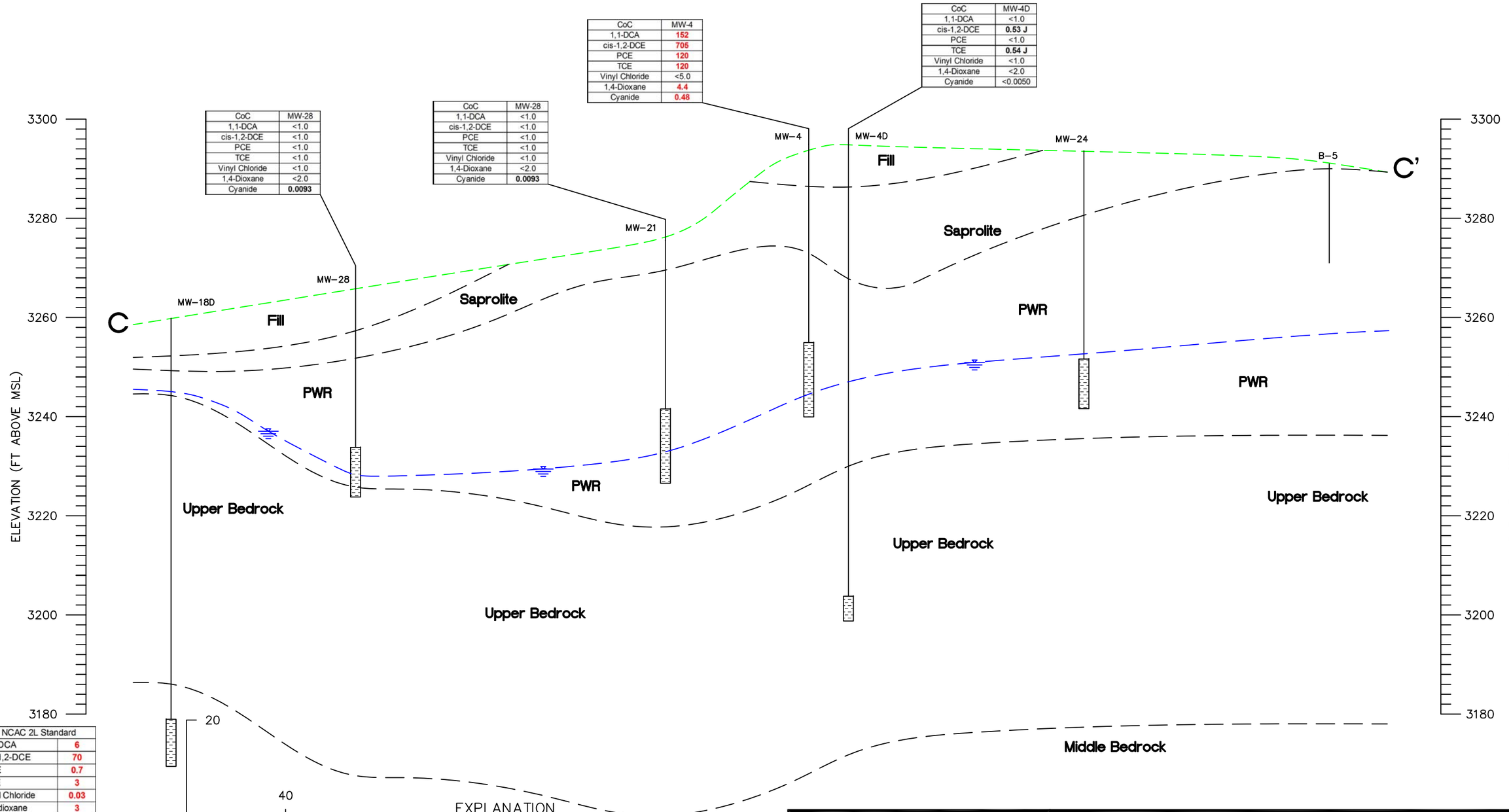
JOB:	6251-12-1001
LT,LNG:	.
SCALE:	AS SHOWN
DRAWN:	M. Flanik
CHKD:	P. Johnstone
PM:	P. Johnstone
DATE:	5/28/14

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE NO. **19**

PROJECT NO. 6251-12-1001

Path: P:\AutoCAD Drawings Only^ CHECK OUT BEFORE DELETING\Environmental\Not 6228\6680-04-9513.01 Boone RBTC\RI Addendum #3 - October 2013\Fig 19 PROFILE B-B'.dwg [Layout1]
Date: April 09, 2015 - 12:35pm By: sarah.perry



CoC	MW-28
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	**0.0093**

CoC	MW-28
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	**0.0093**

CoC	MW-4
1,1-DCA	**152**
cis-1,2-DCE	**705**
PCE	**120**
TCE	**120**
Vinyl Chloride	<5.0
1,4-Dioxane	**4.4**
Cyanide	**0.48**

CoC	MW-4D
1,1-DCA	<1.0
cis-1,2-DCE	**0.53 J**
PCE	<1.0
TCE	**0.54 J**
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050

NCAC 2L Standard	
1,1-DCA	**6**
cis-1,2-DCE	**70**
PCE	**0.7**
TCE	**3**
Vinyl Chloride	**0.03**
1,4-dioxane	**3**
Cyanide	**0.07**

NOTE:
1. BOLD VALUES INDICATE DETECTIONS ABOVE THE LABORATORY REPORTING LIMIT
2. RED VALUES EXCEED THE NCAC 2L STANDARD
3. RESULTS ARE FROM THE DECEMBER 2013 SAMPLING EVENT

LOCATION OF C–C' IS REFERENCED ON CROSS SECTION LOCATION MAP

EXPLANATION

SCREENED INTERVAL

GROUNDWATER ELEVATION

GROUND–SURFACE

INFERRED WATER TABLE SURFACE (DECEMBER 3, 2013) (excludes deep monitoring wells)

B–5 SURFACE ELEVATION IS ESTIMATED

amec foster wheeler

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2801 Yorkmont Road, Suite 100, Charlotte, NC 28208
Phone (704) 357-8600 Fax (704) 357-8638

GEOLOGIC CROSS SECTION C-C'

JOB:	6251-12-1001
LT,LNG:	.
SCALE:	AS SHOWN
DRAWN:	M. Flanik
CHKD:	P. Johnstone
PM:	P. Johnstone
DATE:	5/28/14

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

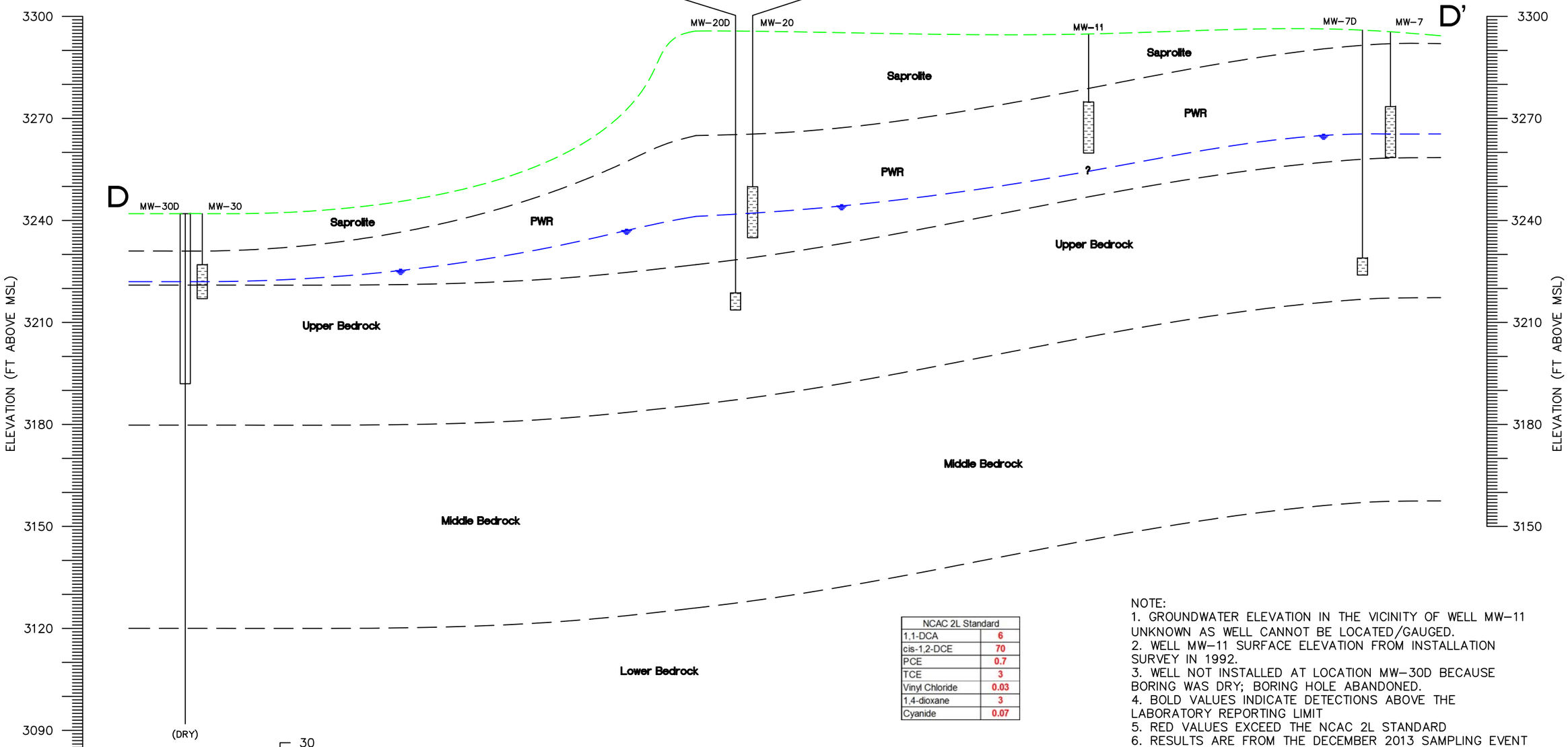
FIGURE NO. **20**

PROJECT NO. 6251-12-1001

Path: P:\AutoCAD Drawings Only^CHECK OUT BEFORE DELETING\Environmental\Not 6228\6680-04-9513.01 Boone RBTC\RI Addendum #3 - October 2013\Fig 20 PROFILE C-C'.dwg [Layout1]
Date: April 09, 2015 - 12:35pm By: sarah.perry

CoC	MW-20D
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	--

CoC	MW-20
1,1-DCA	<1.0
cis-1,2-DCE	<1.0
PCE	<1.0
TCE	<1.0
Vinyl Chloride	<1.0
1,4-Dioxane	<2.0
Cyanide	<0.0050



NCAC 2L Standard	
1,1-DCA	6
cis-1,2-DCE	70
PCE	0.7
TCE	3
Vinyl Chloride	0.03
1,4-dioxane	3
Cyanide	0.07

NOTE:
1. GROUNDWATER ELEVATION IN THE VICINITY OF WELL MW-11 UNKNOWN AS WELL CANNOT BE LOCATED/GAUGED.
2. WELL MW-11 SURFACE ELEVATION FROM INSTALLATION SURVEY IN 1992.
3. WELL NOT INSTALLED AT LOCATION MW-30D BECAUSE BORING WAS DRY; BORING HOLE ABANDONED.
4. BOLD VALUES INDICATE DETECTIONS ABOVE THE LABORATORY REPORTING LIMIT
5. RED VALUES EXCEED THE NCAC 2L STANDARD
6. RESULTS ARE FROM THE DECEMBER 2013 SAMPLING EVENT

30 60
APPROXIMATE SCALE (FEET)

EXPLANATION

SCREENED INTERVAL

GROUNDWATER ELEVATION

GROUND-SURFACE

INFERRED WATER TABLE SURFACE (DECEMBER 3, 2013) (excludes deep monitoring wells)

LOCATION OF D-D' IS REFERENCED ON CROSS SECTION LOCATION MAP

amec foster wheeler

AMEC Environment & Infrastructure
2801 Yorkmont Road, Suite 100, Charlotte, NC 28208
Phone (704) 357-8600 Fax (704) 357-8638

GEOLOGIC CROSS SECTION D-D'

JOB:	6251-12-1001
LT,LNG:	.
SCALE:	AS SHOWN
DRAWN:	M. Flanik
CHKD:	P. Johnstone
PM:	P. Johnstone
DATE:	5/28/14

RBTC FORMER BOONE DIVISION
BOONE, NORTH CAROLINA

FIGURE NO. **21**

PROJECT NO. 6251-12-1001

Path: P:\AutoCAD Drawings Only ^ CHECK OUT BEFORE DELETING\Environmental\Not 6228\6680-04-9513.01 Boone RBTC\RI Addendum #3 - October 2013\Fig 21 PROFILE D-D'.dwg [Layout1]
Date: April 09, 2015 - 12:54pm By: sarah.perry

APPENDIX C

BACKGROUND SITE GROUNDWATER INFORMATION

Table C.1
Summary of Monitoring Well Construction Information
Robert Bosch Tool Corporation
Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Monitoring Well	Date Installed	Ground Elevation (ft, msl)	TOC Elevation (ft, msl)	Boring Depth (ft, bgs)	Casing Depth (ft, bgs)	Well Depth (ft, bgs)	Screened Interval (ft, bgs)	Screen Length (ft)	Top of Sand (ft, bgs)	Top of Bentonite (ft, bgs)
MW-1	8/14/1991	3294.42	3294.27	45.0	NA	45.0	25.0 - 45.0	20.0	23.0	21.0
MW-2	8/14/1991	3295.45	3295.05	55.0	NA	55.0	35.0 - 55.0	20.0	33.0	31.0
MW-3	8/15/1991	3295.66	3295.46	55.0	NA	55.0	35.0 - 55.0	20.0	33.0	31.0
MW-3R	6/5/1992	NM	NM	70.0	38.0	70.0	40.0 - 70.0	30.0	38.0	37.0
MW-4	8/15/1991	3295.14	3294.94	55.0	NA	55.0	40.0 55.0	15.0	38.0	36.0
MW-4D	6/2/1992	3295.16	3294.77	98.0	63.0	96.0	91.0 - 96.0	5.0	89.0	88.0
MW-5	8/16/1991	3292.78	3292.51	80.0	NA	80.0	60.0 - 80.0	20.0	58.0	56.0
MW-5D	5/29/1992	3292.83	3292.61	128.0	52.0	120.0	115.0 - 120.0	5.0	113.0	112.0
MW-5DD	8/9/2011	3292.97	3292.83	160.0	90,130	160.0	155.0 160.0	5.0	153.0	142.0
MW-7	5/14/1992	3295.45	3295.25	37.0	NA	37.0	22.0 - 37.0	15.0	19.0	15.0
MW-7D	6/9/1992	3295.41	3296.21	77.0	20.5	72.0	67.0 - 72.0	5.0	65.0	64.0
MW-8	5/22/1992	3294.25	3294.09	50.0	NA	50.0	30.0 - 50.0	20.0	28.0	25.0
MW-8D	5/21/1992	3294.33	3294.20	96.0	50.0	96.0	81.0 - 96.0	15.0	79.0	78.0
MW-9D	6/9/1992	3295.79	3295.46	118.0	59.0	118.0	98.0 - 118.0	20.0	96.0	95.0
MW-10	5/27/1992	3288.47	3288.20	50.0	NA	50.0	26.0 - 50.0	24.0	24.0	20.0
MW-10D	6/10/1992	3288.54	3288.39	108.0	59.0	108.0	98.0 - 108.0	10.0	96.0	95.0
MW-11	5/14/1992	3293.94	3293.76	35.0	16.0	35.0	20.0 - 35.0	15.0	18.0	18.0
MW-12	5/22/1992	3294.02	3293.71	60.0	NA	60.0	40.0 - 60.0	20.0	38.0	34.0
MW-12D	7/27/2011	NM	3293.49	100.0	70.0	100.0	95.0 - 100.0	5.0	93.0	88.0
MW-12DD	3/12/2012	NM	3293.98	150.0	70, 120	135.0	130.0 - 135.0	5.0	128.0	120.0
MW-12D3	1/29/2013	3294.68	3294.53	201.0	146.0	201.0	191.0 201.0	10.0	189.0	183.0
MW-13	6/1/1993	3179.48	3179.15	60.0	NA	59.0	24.0 - 59.0	35.0	22.0	18.0
MW-13D	5/25/1993	3179.50	3179.26	125.0	83.0	120.0	110.0 - 120.0	10.0	108.0	105.0
MW-14	5/25/1993	3172.73	3172.41	60.0	NA	60.0	55.0 - 60.0	5.0	53.0	50.0
MW-15	6/2/1993	3132.36	NM	20.0	NA	19.0	4.0 - 19.0	15.0	2.0	1.0
MW-15D	5/26/1993	3132.62	NM	68.5	28.5	68.5	58.5 - 68.5	10.0	56.5	52.1
MW-16	6/2/1993	3128.57	NM	20.0	NA	19.0	4.0 - 19.0	15.0	2.0	1.0
MW-17	2/25/1997	3268.86	3268.52	46.5	14.0	45.9	36.4 - 45.9	9.5	34.4	32.8
MW-17D	2/27/1997	3269.12	3269.04	101.0	40.0	100.3	80.8 - 100.3	19.5	78.3	65.0
MW-18D	2/28/1997	3260.15	3259.85	91.0	15.0	90.4	80.9 - 90.4	9.9	78.9	74.0
MW-19	9/26/1998	NM	3179.66	49.0	NA	49.0	39.0 - 49.0	10.0	37.0	35.0
MW-19D	9/26/1998	NM	3180.05	120.0	107.0	120.0	115.0 - 120.0	5.0	113.0	101.0
MW-20	7/26/2011	NM	3295.52	60.0	NA	60.0	45.0 - 60.0	15.0	43.0	38.7
MW-20D	7/28/2011	NM	3295.69	82.0	60.0	82.0	77.0 - 82.0	5.0	75.0	70.0
MW-21	8/9/2011	NM	3275.55	47.0	NA	47.0	32.0 - 47.0	15.0	30.0	26.0
MW-22	2/11/2012	NM	3293.28	55.0	NA	55.0	45.0 - 55.0	10.0	42.0	39.0
MW-23	2/11/2012	NM	3295.44	55.0	NA	55.0	45.0 - 55.0	10.0	43.0	40.0
MW-24	2/11/2012	NM	3295.27	52.0	NA	52.0	42.0 - 52.0	10.0	39.0	36.0
MW-25	2/11/2012	NM	3294.39	60.0	NA	60.0	50.0 - 60.0	10.0	47.0	44.0
MW-26	3/13/2012	NM	3269.87	48.0	NA	48.0	38.0 - 48.0	10.0	36.0	29.0
MW-27	3/9/2012	NM	3267.37	50.0	NA	45.0	35.0 - 45.0	10.0	33.0	29.0
MW-28	1/21/2013	3261.30	3261.07	50.0	NA	42.0	32.0 - 42.0	10.0	30.0	27.0
MW-29D	1/24/2013	3264.50	3264.46	86.0	60.0	86.0	76.0 - 86.0	10.0	74.0	59.0
MW-30	1/23/2013	3242.90	3242.68	24.5	NA	24.5	14.5 - 24.5	10.0	12.0	10.0
MW-31	1/29/2013	3257.60	3257.42	45.0	NA	42.75	32.75 - 42.75	10.0	30.0	27.0
MW-32	4/10/2013	3257.20	3256.80	49.0	NA	45.0	35.0 - 45.0	10.0	33.0	27.0
MW-32D	1/30/2013	3256.10	3255.87	77.0	65.0	77.0	72.0 - 77.0	5.0	70.0	63.0
MW-33	4/10/2013	3256.30	3255.60	48.0	NA	47.0	37.0 - 47.0	10.0	35.0	29.0
MW-34	4/10/2013	3260.50	3260.24	51.0	NA	51.0	41.0 - 51.0	10.0	39.0	33.0
MW-35	6/20/2013	3227.40	3227.17	20.0	NA	20.0	10.0 - 20.0	10.0	8.0	5.0
MW-36	12/4/2013	3251.11	3250.93	47.0	NA	47.0	37.0 47.0	10.0	34.0	30.0
MW-36D	12/4/2013	3251.01	3250.57	69.0	50.0	69.0	64.0 69.0	5.0	62.0	58.0
RW-1	6/5/1992	3293.19	NM	75.0	40.0	75.0	40.0 - 75.0	35.0	33.0	32.0
RW-2	6/5/1992	3295.08	NM	71.0	41.0	71.0	41.0 - 71.0	30.0	38.0	37.0
RW-3	6/5/1992	3295.61	3295.36	70.0	38.0	70.0	40.0 - 70.0	30.0	38.00	37.0

Notes:
1. Elevations for wells MW-1 through MW-18D and RW-3 adapted from "Table 1. New Monitor Well Construction Details" contained in *Groundwater Assessment Report* for the Property at 665 State Farm Road, Boone, North Carolina dated September 9, 1997 and prepared by QST Environmental.
2. Elevations expressed in feet above North American Vertical Datum 1988.
3. TOC = top of casing
4. ft = feet
5. msl = mean sea level
6. bgs = below ground surface
7. NA = Not available. No casing was constructed during the well installation process.
8. NM = Not measured; ground surface and/or TOC elevations were not measured by the surveyor.

Prepared By/Date: SS 3/21/2014
Checked By/Date: MPF 3/25/2014

Table C.2
Summary of Groundwater Elevation Data
Robert Bosch Tool Corporation, Former Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Monitoring Well	TOC Elevation (ft, msl)	Date	Depth to Ground Water (ft, bgs)	Water Table Elevation (ft, msl)	Screen Placement
MW-1	3294.27	9/21/2015	39.82	3254.45	Overburden
MW-2	3295.05	9/21/2015	54.51	3240.54	Overburden
MW-3	3295.46	9/21/2015	DRY	---	Overburden
MW-4	3294.94	9/21/2015	54.18	3240.76	Overburden
MW-4D	3294.77	9/21/2015	54.98	3239.79	Upper Bedrock
MW-5	3292.51	9/21/2015	60.91	3231.60	Upper Bedrock
MW-5D	3292.61	9/21/2015	70.44	3222.17	Upper Bedrock
MW-5DD	3292.83	9/21/2015	71.39	3221.44	Middle Bedrock
MW-7	3295.25	9/21/2015	32.29	3262.96	Overburden
MW-7D	3296.21	9/21/2015	38.45	3257.76	Upper Bedrock
MW-8	3294.09	9/21/2015	49.79	3244.30	Overburden
MW-8D	3294.20	9/21/2015	52.88	3241.32	Upper Bedrock
MW-9D	3295.46	9/21/2015	54.31	3241.15	Upper Bedrock
MW-10	3288.20	9/21/2015	40.30	3247.90	Overburden
MW-10D	3288.39	9/21/2015	67.72	3220.67	Upper Bedrock
MW-11	3293.76	9/21/2015	NM	---	Overburden
MW-12	3293.71	9/21/2015	59.75	3233.96	Overburden
MW-12D	3293.49	9/21/2015	70.45	3223.04	Upper Bedrock
MW-12DD	3293.98	9/21/2015	72.43	3221.55	Middle Bedrock
MW-12D3	3294.53	9/21/2015	95.30	3199.23	Lower Bedrock
MW-13	3179.15	9/21/2015	41.19	3137.96	Overburden
MW-13D	3179.26	9/21/2015	42.15	3137.11	Upper Bedrock
MW-14	3272.44	9/21/2015	36.94	3235.50	Overburden
MW-17	3268.52	9/21/2015	40.15	3228.37	Upper Bedrock
MW-17D	3269.04	9/21/2015	48.73	3220.31	Middle Bedrock
MW-18D	3259.85	9/21/2015	39.98	3219.87	Middle Bedrock
MW-19	3179.66	9/21/2015	27.88	3151.78	Overburden
MW-19D	3180.05	9/21/2015	31.33	3148.72	Upper Bedrock
MW-20	3295.52	9/21/2015	57.03	3238.49	Overburden
MW-20D	3295.69	9/21/2015	81.34	3214.35	Upper Bedrock
MW-21	3275.55	9/21/2015	46.80	3228.75	Overburden
MW-22	3293.28	9/21/2015	49.37	3243.91	Overburden
MW-23	3295.44	9/21/2015	44.24	3251.20	Overburden
MW-24	3295.27	9/21/2015	50.86	3244.41	Overburden
MW-25	3294.39	9/21/2015	53.69	3240.70	Overburden
MW-26	3269.87	9/21/2015	45.20	3224.67	Overburden
MW-27	3267.37	9/21/2015	40.73	3226.64	Overburden
MW-28	3261.07	9/21/2015	34.29	3226.78	Overburden
MW-29D	3264.46	9/21/2015	44.11	3220.35	Upper Bedrock
MW-30	3242.68	9/21/2015	23.03	3219.65	Overburden
MW-31	3257.42	9/21/2015	36.67	3220.75	Overburden
MW-32	3256.8	9/21/2015	42.84	3213.96	Overburden
MW-32D	3255.87	9/21/2015	50.68	3205.19	Upper Bedrock
MW-33	3255.60	9/21/2015	DRY	---	Overburden
MW-34	3260.24	9/21/2015	45.06	3215.18	Overburden
MW-35	3227.17	9/21/2015	13.92	3213.25	Overburden
MW-36	3250.93	9/21/2015	42.14	3208.79	Overburden
MW-36D	3250.57	9/21/2015	67.23	3183.34	Upper Bedrock

Notes:
1. Elevations for wells MW-1 through MW-18D and RW-3 adapted from "Table 1. New Monitor Well Construction Details" contained in Groundwater Assessment *Report* for the Property at 665 State Farm Road, Boone, North Carolina, dated September 9, 1997 and prepared by QST Environmental; elevations for wells MW-20 through MW-27 surveyed by R.B. Pharr Associates in 2012; elevations for wells MW-28, MW-30 through MW-35, MW-29D and MW-32D surveyed by KCI Associates in July 2013.
2. Elevations expressed in feet above North American Vertical Datum 1988.
3. TOC = top of casing
4. ft = feet
5. msl = mean sea level
6. bgs = below ground surface
7. NM = Not measured; well MW-11 was inaccessible at the time of sampling; wells MW-15, MW-15D and MW-16 have been destroyed.
8. Overburden = Partially weathered rock

Prepared By/Date: ZJD 10/27/15
Checked By/Date: PSJ 12/23/15

Table 3 Summary of Aquifer and Soil Hydraulic Characteristics.

AQUIFER/ LOCATION	Depth (ft)(bls)	Hydraulic Con.(K)v ft/d	Hydraulic Con.(K)h ft/d	Porosity (n)e effective	Gradient (I)h AVG	Gradient (I)v	Velocity (v) ft/day	(T) ftsq/day	(S)	Method
				PARAMETERS						
SHALLOW										
MW-3R	40'-70'	NA	0.51	0.14	0.082	NA	0.29	13.3	NA	2
MW-3R*	40'-70'	NA	0.46	0.14	0.082	NA	0:26	11.9	NA	2
MW-3R	40'-70'	NA	0.29	0.14	0.082	NA	0.16	7.6	NA	1
MW-2	35'-55'	NA	1.16	0.14	0.082	NA	0.66	30.2	1.20E-03	3
MW-3	35'-55'	NA	1.2	0.14	0.082	NA	0.7	31.2	6.40E-04	3
DEEP										
MW-9D**	98'-118'	NA	NA	0.0001	0.084	NA	NA	30.4	3.90E-04	3
MW-9D	101'-118'	NA	4.30E-06	0.0001	0.084	NA	0.0036	7.30E-05	5.00E-08	4
MW-10D	101'-108'	NA	0.031	0.0001	0.084	NA	26	0.22	0.24	4
MW-7D	69'-77'	NA	2.20E-07	0.0001	0.084	NA	1.80E-04	1.80E-06	5.70E-06	4
VADOSE										
CHP-1	4'-6'	0.5	NA	NA	NA	NA	NA	NA	NA	5
CHP-2	4'-6'	0.53	NA	NA	NA	NA	NA	NA	NA	5
CHP-3	4'-6'	0.1	NA	NA	NA	NA	NA	NA	NA	5
CHP-4	4'-6'	0.26	NA	NA	NA	NA	NA	NA	NA	5
CHP-1	4'	2.62	NA	NA	NA	NA	NA	NA	NA	6
CHP-2	4'	0.99	NA	NA	NA	NA	NA	NA	NA	6
CHP-3	4'	2.06	NA	NA	NA	NA	NA	NA	NA	6
CHP-4	4'	1.3	NA	NA	NA	NA	NA	NA	NA	6
MW-3/MW-9D	NA	NA	NA	NA	NA	-0.002	NA	NA	NA	NA
MW-4/MW-4D	NA	NA	NA	NA	NA	0.0048	NA	NA	NA	NA
MW-5/MW-5D	NA	NA	NA	NA	NA	0.26	NA	NA	NA	NA
MW-8/MW-8D	NA	NA	NA	NA	NA	0.025	NA	NA	NA	NA
MW-10/	NA	NA	NA	NA	NA	0.33	NA	NA	NA	NA
MW-10D	NA	NA	NA	NA	NA					

Notes:

(K)v= vertical hydraulic conductivity
(K)h= horizontial hydraulic conductivity
(n)e=estimated based on grain size analysis & Walton, 1991.
(T)=transmissivity
(S)= storativity
(I)h= horizontial ground water gradient
(I)v= verticial groudwater gradient. A "-" indicates discharging system (downward)
*= values presented reflect prior to ice fracturing.
**=values reflect anticipated horizontial flow.
bls = below land surface
"o" = indicates water levels on 6-24-92

Methods:

1-Recovery test method for pumping wells,Theis,1937.
2- Slug test method for a single well,Hvorslev,1951.
3-Drawdown test analysis method,utilizing the double block porosity model,Boulton-Streltsova,1977.
4- Packer test analysis method,ASTM D-4630-86
5- Hazen method for analysis of sand results, Freeze and Cherry,1979.
6-Glover method for analysis of hydraulic conductivity, Amoozegar, 1988.

Table C.4
Summary of Groundwater Gradient and Velocity Calculations
Former RBTC Boone Division
Boone, North Carolina
Amec Foster Wheeler Project 6251121001.03.01

Vertical Hydaulic Gradients			
Wells	Δ head (feet)	Δ screen midpoint (feet)	vertical gradient
MW-4/MW-4D	0.97	45.98	0.021
MW-5/MW-5D	9.43	47.45	0.199
MW-10/MW-10D	27.23	64.93	0.419
MW-12D/MW-12DD	1.49	35.00	0.043
MW-12DD/MW-12D3	22.32	62.84	0.355
MW-17/MW-17D	8.06	49.14	0.164
MW-36/MW-36D	25.45	24.60	1.035
Average Downward Vertical Gradient			0.319
Average Upward Vertical Gradient			NA
Notes:			
Negative head values indicates upward vertical gradient			

Groundwater Velocity (V)				
where *V (ft/day) = K*i/ne*				
Overburden	K = 0.485	K = 1.2	*V (ft/year)*	
Wells	ne = 0.14	ne = 0.14	Minimum	Maximum
MW-10 to MW-5	0.364	0.901	133	329
Upper Bedrock	K = 0.00000022	K = 0.031	*V (ft/year)*	
MW-4D to MW-12D	0.0004	53.531	0.14	19539
MW-10D to MW-5D	0.000022	3.100	0.0080	1132
MW-29D to MW-17D	0.0001	20.672	0.05	7545

Horizontal Hydraulic Gradients (i)			
Wells	Δ L (feet)	Δ head (feet)	horizontal gradient
MW-10 to MW-5	155	16.30	0.105
MW-4 to MW-21	80	12.01	0.150
MW-10 to MW-34	232	32.72	0.141
MW-20 to MW-28	328	11.71	0.036
MW-4D to MW-12D	97	16.75	0.173
MW-5D to MW-10D	150	1.50	0.010
MW-5D to MW-36D	495	38.83	0.078
MW-29D to MW-36D	555	37.01	0.067
Average Horizontal Gradient in Overburden			0.108
Average Horizontal Gradient in Upper Bedrock			0.082

Prepared By/Date: ZJD 10/27/15
Checked By/Date: PSJ 12/28/15

APPENDIX D

REMEDIAL INVESTIGATION RESULTS
FOR
SOILS, SEDIMENT, AND SURFACE WATER

Table 3.4: Metal Results for Background Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BACKGROUND SOIL BORINGS											
Sample ID						**SB-1**	**SB-1**	**SB-1**	**SB-2**	**SB-2**	**SB-2**	**SB-2**	**SB-2**	**SB-2**	**SB-3**	**SB-3**	**SB-3**
Depth (ft. bls)						**0.5**	**5**	**5.5**	**3**	**5**	**10**	**15**	**20**	**22**	**0.5**	**5**	**10**
Collection Date						**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0058	0.00021 J	0.00025J	0.012	0.024	0.040	0.0053J	0.00032J	0.0009J	0.0053	0.012	0.0022J
Antimony	6010	mg/kg	6.2	82	0.9	<0.51	<0.43	<0.45	<0.37	<0.48	<0.46	<0.56	<0.46	<0.47	<0.46	<0.54	<0.49
Arsenic	6010	mg/kg	0.39	1.6	5.8	<0.51	0.85	1.3	1.4	1.3	2.0	0.98	<0.46	0.82	1.8	1.8	0.84
Beryllium	6010	mg/kg	32	400	63	0.63	0.41	0.48	0.63	0.76	0.78	0.50	0.52	0.51	0.39	1.1	0.64
Cadmium	6010	mg/kg	14	160	3.0	2.7	<0.085	<0.090	0.99	0.90	0.73	<0.11	<0.093	0.063J	0.12	2.5	<0.098
Chromium	6010	mg/kg	24,000	100,000	360,000	23.1	3.1	1.4	10.4	10.7	9.6	2.0	0.95	0.57	6.0	9.2	0.44J
Copper	6010	mg/kg	620	8,200	700	24.2	2.0	1.4	5.7	5.7	4.4	2.8	1.6	2.2	14.9	21.9	2.5
Lead	6010	mg/kg	400	800	270	6.4	23.2	13.0	6.3	7.4	7.0	24.8	9.1	14.4	11.4	6.4	3.3
Manganese	6010	mg/kg	360	4,600	65	434	205	412	245	307	315	154	60.0	77.0	282	613	112
Nickel	6010	mg/kg	300	4,000	130	17.6	0.76	0.41J	8.3	8.6	5.9	3.9	0.48	0.50	9.7	10.2	<0.49
Selenium	6010	mg/kg	78	1,000	2.1	1.9	0.59 J	<0.90	0.41J	1.4	1.0	0.72J	<0.93	<0.94	<1.4	1.4	0.80J
Silver	6010	mg/kg	78	1,000	3.4	0.31 J	<0.43	<0.45	0.099J	0.048J	<0.46	<0.56	<0.46	<0.47	0.16J	0.12J	0.040J
Thallium	6010	mg/kg	0.16	2.0	0.28	0.62 J	<0.85	<0.90	<0.74	<0.97	<0.93	<1.1	<0.93	<0.94	<1.2	1.2	<0.98
Zinc	6010	mg/kg	4,600	62,000	1,200	76.5	5.2	2.5	39.3	42.2	31.1	11.1	2.1	2.5	40.5	87.2	14.9
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	<2.7	0.19 J	0.63J	<1.9	<2.4	<1.8	0.32J	0.62J	0.34J	<2.3	<1.3	0.11J
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	23.1	2.9 J	0.77J	10.4	10.7	9.6	1.7J	0.33J	0.23J	6.0	9.2	0.33J

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

POG SRG = Protection of Groundwater soil remediation goals

Industrial SRG = Preliminary industrial health-based soil remediation goals

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface

mg/kg= milligrams per kilogram

SRG = Soil Remediation goals

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.4: Metal Results for Background Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BACKGROUND SOIL SAMPLES										
Sample ID						SB-3	SB-3	SB-4	SB-4	SB-4	SB-5	SB-5	SB-5	SB-5	SB-5	SB-5
Depth (ft. bls)						15	17	1	5	6.5	0.42	5	10	15	20	22
Collection Date						7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0063	0.0011J	0.0062	0.014	0.0027J	0.17	<0.00010	<0.0051	<0.0055	<0.0061	<0.0048
Antimony	6010	mg/kg	6.2	82	0.9	<0.54	<0.54	<0.47	<0.62	<0.45	<0.32	<0.43	<0.45	<0.54	<2.2	<9.5
Arsenic	6010	mg/kg	0.39	1.6	5.8	2.0	2.2	1.4	1.5	0.35J	1.3	0.98	0.75	<0.54	<2.2	8.4J
Beryllium	6010	mg/kg	32	400	63	0.53	0.74	0.52	1.2	0.41	0.33	0.30	0.32	0.41	1.7	2.4
Cadmium	6010	mg/kg	14	160	3.0	0.085J	2.2	<0.093	2.0	0.056J	0.20	<0.086	<0.090	<0.11	<0.43	<1.1
Chromium	6010	mg/kg	24,000	100,000	360,000	2.3	6.5	7.0	28.9	0.35J	5.1	0.63	0.27J	0.34J	6.5	4.4J
Copper	6010	mg/kg	620	8,200	700	19.8	1.1	4.0	10.9	0.51	4.7	2.6	3.6	12.9	2.7	9.5J
Lead	6010	mg/kg	400	800	270	74.0	4.6	17.0	13.6	3.8	9.7	9.2	12.4	5.4	10.7	11.9
Manganese	6010	mg/kg	360	4,600	65	307	484	491	609	59.9	230	112	145	209	624	1,170
Nickel	6010	mg/kg	300	4,000	130	4.2	5.0	4.7	21.9	0.33J	4.2	<0.43	0.19J	0.52J	6.7	8.4J
Selenium	6010	mg/kg	78	1,000	2.1	1.1J	1.1	0.58J	1.6	<0.89	<0.64	<0.86	0.50J	0.59J	2.7J	11.6J
Silver	6010	mg/kg	78	1,000	3.4	0.035J	0.11J	<0.47	0.080J	<0.45	0.066J	<0.43	<0.45	<0.54	0.22J	<9.5
Thallium	6010	mg/kg	0.16	2.0	0.28	<1.1	0.97J	<0.93	1.1J	<0.89	<0.64	<0.86	0.28J	<1.1	1.5J	<5.0
Zinc	6010	mg/kg	4,600	62,000	1,200	24.1	73.4	16.8	71.9	1.2	16.9	7.9	10.6	7.9	59.4	<19.0
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.44J	0.37J	<2.3	<2.2	0.56J	<1.5	0.30J	0.59J	0.12J	0.45J	0.97J
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	1.9J	6.1	7.0	28.9	0.35J	5.1	0.33J	0J	0.22J	6.0	3.4J

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

POG SRG = Protection of Groundwater soil remediation goals

Industrial SRG = Preliminary industrial health-based soil remediation goals

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface

mg/kg= milligrams per kilogram

SRG = Soil Remediation goals

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BLACK OXIDE ROOM									PAINT STORAGE ROOM			PAINT ROOM		
Sample ID						SB-6	SB-6	SB-6	SB-7	SB-7	SB-7	SB-8	SB-8	SB-8	SB-9	SB-9	SB-9	SB-10	SB-10	SB-10
Depth (ft.bls)						0.5	21	26	0.5	10	19	0.5	5	13	0.5	19	35	0.5	11	15
Collection Date						8/10/2011	8/10/2011	8/10/2011	8/4/2011	8/4/2011	8/4/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	105	400	55.5J	51.2J	662	<102	28J	83.2J	88.3J	43.1J	70.8J	24.8J	<95.6	144	81.7J
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	<97.9	<138	<109	<101	20.6J	<102	<88.6	<119	<101	<88.8	<132	<98.3	<95.6	<122	<118
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<9.8	<13.8	<10.9	<10.1	<8.3	<10.2	<8.9	<11.9	<10.1	<8.9	<13.3	<9.8	<9.6	<12.2	<11.8
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<4.9	2.2J	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	30.9	7	<4.8	<6.1	<5.9
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	11	<4.9	<4.8	<6.1	<5.9
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
p-Isopropyltoluene	8260	µg/kg	--	--	680	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
Methylene Chloride	8260	µg/kg	11,000	53,000	23	15.9J	17.2J	24.5	<20.2	<16.7	14.5J	<17.7	<23.8	<20.1	14.2J	29.3	12.4J	<19.1	13J	15.1J
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<49	<69.1	<54.3	<50.5	<41.7	<51.2	<44.3	<59.5	<50.3	<44.4	<65.8	<49.1	<47.8	<60.8	<59
Naphthalene	8260	µg/kg	3,600	18,000	210	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
o-Xylene	8260	µg/kg	140,000	430,000	--	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	7.7	<4.9	<4.8	<6.1	<5.9
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
Tetrachloroethene	8260	µg/kg	550	2,600	5	2J	<6.9	<5.4	<5.0	2.1J	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	2.8J	6.2	<5.9
Toluene	8260	µg/kg	820,000	820,000	5,500	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
Trichloroethene	8260	µg/kg	2,800	14,000	18	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	2.8J	<4.9	<4.8	2.8J	<5.9
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<4.9	<6.9	<5.4	<5.0	<4.2	<5.1	<4.4	<6.0	<5.0	<4.4	<6.6	<4.9	<4.8	<6.1	<5.9
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<9.8	<13.8	<10.9	<10.1	<8.3	<10.2	<8.9	<11.9	<10.1	<8.9	<13.3	<9.8	<9.6	<12.2	<11.8
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<9.8	<13.8	<10.9	<10.1	<8.3	<10.2	<8.9	<11.9	<10.1	<8.9	13.1J	<9.8	<9.6	<12.2	<11.8

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						**WASTEWATER ROOM**											
Sample ID						**SB-12**	**SB-12**	**SB-12**	**SB-13**	**SB-13**	**SB-13**	**SB-14**	**SB-14**	**SB-14**	**SB-15**	**SB-15**	**SB-15**
Depth (ft.bls)						**0.5**	**7**	**30**	**0.5**	**8**	**23**	**0.5**	**16**	**21**	**0.5**	**7**	**24**
Collection Date						**8/4/2011**	**8/4/2011**	**8/4/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	62.8J	143	94J	<110	<92.3	<93.2	<92.5	18.8J	<96.9	122	105	25.8J
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	10.3J	<86.8	14.7J	<110	<92.3	<93.2	<92.5	<97.9	<96.9	<114	<96.0	<101
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<8.3	<8.7	<10.0	<11.0	<9.2	<9.3	<9.2	<9.8	<9.7	<11.4	<9.6	<10.1
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
p-Isopropyltoluene	8260	µg/kg	--	--	680	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Methylene Chloride	8260	µg/kg	11,000	53,000	23	10.3J	8.5J	12.6J	<22.1	<18.5	<18.6	<18.5	<19.6	<19.4	15.4J	12.4J	16.9J
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<41.6	<43.4	<50.2	<55.2	<46.1	<46.6	<46.2	<49.0	<48.5	<56.8	<48.0	<50.7
Naphthalene	8260	µg/kg	3,600	18,000	210	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
o-Xylene	8260	µg/kg	140,000	430,000	--	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Tetrachloroethene	8260	µg/kg	550	2,600	5	<4.2	3J	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Toluene	8260	µg/kg	820,000	820,000	5,500	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Trichloroethene	8260	µg/kg	2,800	14,000	18	4.6	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<4.2	<4.3	<5.0	<5.5	<4.6	<4.7	<4.6	<4.9	<4.8	<5.7	<4.8	<5.1
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<8.3	<8.7	<10.0	<11.0	<9.2	<9.3	<9.2	<9.8	<9.7	<11.4	<9.6	<10.1
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<8.3	<8.7	<10.0	<11.0	<9.2	<9.3	<9.2	<9.8	<9.7	<11.4	<9.6	<10.1

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						HAZARDOUS WASTE STORAGE AREA														
Sample ID						**SB-16**	**SB-16**	**SB-16**	**SB-17**	**SB-17**	**SB-17**	**SB-18**	**SB-18**	**SB-18**	**SB-19**	**SB-19**	**SB-19**	**SB-20**	**SB-20**	**SB-20**
Depth (ft.bls)						**0.5**	**10**	**19**	**0.5**	**10**	**22**	**0.5**	**12**	**24**	**0.5**	**10**	**19**	**0.5**	**5**	**13**
Collection Date						**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	165	46.8J	258	30.4J	101	<92.0	173	67.5J	<98.4	65.6J	239	69J	89.4J	149	93J
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	23.5J	<106	6.1J	<95.9	6.3J	<92.0	16.8J	4.1J	<98.4	<103	11J	<89.1	<125	<84.5	<98.9
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<12.6	<10.6	<9.4	<9.6	<9.0	<9.2	<11.1	<10.2	<9.8	<10.3	<9.4	<8.9	<12.5	<8.4	<9.9
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	2.3J	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	9.6	<4.9	2.1J	<4.7	<4.5	<6.3	<4.2	<4.9
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
p-Isopropyltoluene	8260	µg/kg	--	--	680	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
Methylene Chloride	8260	µg/kg	11,000	53,000	23	<25.1	<21.3	<18.8	<19.2	<18.0	<18.4	<22.1	<20.4	<19.7	<20.5	8.5J	9.8J	12.5J	17.1	10.6J
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<62.9	<53.2	<47.0	<47.9	<45.0	<46.0	<55.3	<51.0	<49.2	<51.3	<47	<44.5	<62.6	<42.2	<49.5
Naphthalene	8260	µg/kg	3,600	18,000	210	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
o-Xylene	8260	µg/kg	140,000	430,000	--	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
Tetrachloroethene	8260	µg/kg	550	2,600	5	<6.3	<5.3	4.9	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	2.1J	7.3	<4.5	<6.3	<4.2	<4.9
Toluene	8260	µg/kg	820,000	820,000	5,500	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<6.3	<5.3	6.3	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	3.1J	5.2	<4.5	<6.3	<4.2	<4.9
Trichloroethene	8260	µg/kg	2,800	14,000	18	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	6.3	6.6	<4.9	4.2J	3.7J	<4.5	<6.3	<4.2	<4.9
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<6.3	<5.3	<4.7	<4.8	<4.5	<4.6	<5.5	<5.1	<4.9	<5.1	<4.7	<4.5	<6.3	<4.2	<4.9
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<12.6	<10.6	<9.4	<9.6	<9.0	<9.2	<11.1	<10.2	<9.8	<10.3	<9.4	<8.9	<12.5	<8.4	<9.9
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<12.6	<10.6	<9.4	<9.6	<9.0	<9.2	<11.1	<10.2	<9.8	<10.3	<9.4	<8.9	<12.5	<8.4	<9.9

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BUILDING EXTERIOR																		
Sample ID						**SB-21**	**SB-21**	**SB-21**	**SB-22**	**SB-22**	**SB-22**	**SB-23**	**SB-23**	**SB-23**	**SB-24**	**SB-24**	**SB-24**	**SB-25**	**SB-25**	**SB-25**	**SB-26**	**SB-26**	**SB-26**	**SB-27**
Depth (ft.bls)						**0.5**	**6**	**17**	**0.5**	**10**	**20**	**0.5**	**10**	**26**	**0.5**	**15**	**28**	**0.5**	**13**	**24**	**0.5**	**15**	**28**	**0.5**
Collection Date						**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	40.7J	<84.0	<91.8	<107	111J	<98.3	9.6J	79.9J	<85.8	18.1J	<94.5	<94.3	64.0J	36.7J	<105	87.1J	<102	107	66.0J
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	<101	<84.0	<91.8	<107	<112	<98.3	<88.5	<92.6	<85.8	<89.9	<94.5	<94.3	<102	<66.8	<105	<95.1	<102	<101	10.7J
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	1.8J	<5.3	<4.8	<5.1	<5.0	<4.3
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	1.8J	<5.3	<4.8	<5.1	<5.0	<4.3
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<10.1	<8.4	<9.2	<10.7	<11.2	<9.8	<8.8	<9.3	<8.6	<9.0	<9.4	<9.4	<10.2	<6.7	<10.5	<9.5	<10.2	<10.1	<8.6
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	2.7J	<4.5	5.0	<4.7	<5.1	4.7	<5.3	<4.8	5.8	63.8	<4.3
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	5.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	2.6J	<4.3
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
p-Isopropyltoluene	8260	µg/kg	--	--	680	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
Methylene Chloride	8260	µg/kg	11,000	53,000	23	<20.1	<16.8	<18.4	<21.5	<22.4	<19.7	<17.7	<18.5	<17.2	<18.0	<18.9	5.7J	14.0J	12.2J	14.6J	10.6J	16.0J	16.8J	13.8J
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<50.3	<42.0	<45.9	<53.7	<55.9	<49.2	<44.2	<46.3	<42.9	<45.0	<47.2	<47.1	<51.0	<33.4	<52.7	<47.5	<51.0	<50.3	<43.2
Naphthalene	8260	µg/kg	3,600	18,000	210	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	46.2	<5.3	<4.8	<5.1	<5.0	<4.3
o-Xylene	8260	µg/kg	140,000	430,000	--	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
Tetrachloroethene	8260	µg/kg	550	2,600	5	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	3.1J	<4.3	7.7	29.3	<4.7	3.3J	1.6J	<5.3	<4.8	<5.1	<5.0	<4.3
Toluene	8260	µg/kg	820,000	820,000	5,500	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
Trichloroethene	8260	µg/kg	2,800	14,000	18	<5.0	3.1J	<4.6	<5.4	<5.6	<4.9	<4.4	3.8J	<4.3	<4.5	37.2	<4.7	<5.1	2.5J	<5.3	<4.8	2.2J	28.8	<4.3
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<5.0	<4.2	<4.6	<5.4	<5.6	<4.9	<4.4	<4.6	<4.3	<4.5	<4.7	<4.7	<5.1	<3.3	<5.3	<4.8	<5.1	<5.0	<4.3
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<10.1	<8.4	<9.2	<10.7	<11.2	<9.8	<8.8	<9.3	<8.6	<9.0	<9.4	<9.4	<10.2	<6.7	<10.5	<9.5	<10.2	<10.1	<8.6
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<10.1	<8.4	<9.2	<10.7	<11.2	<9.8	<8.8	<9.3	<8.6	<9.0	<9.4	<9.4	<10.2	<6.7	<10.5	<9.5	<10.2	<10.1	<8.6

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BUILDING EXTERIOR																		
Sample ID						**SB-27**	**SB-27**	**SB-28**	**SB-28**	**SB-28**	**SB-29**	**SB-29**	**SB-29**	**SB-30**	**SB-30**	**SB-30**	**SB-31**	**SB-31**	**SB-31**	**SB-32**	**SB-32**	**SB-32**	**SB-33**	**SB-33**
Depth (ft.bls)						**20**	**26**	**0.5**	**8**	**14**	**0.5**	**10**	**18**	**0.5**	**15**	**29**	**0.5**	**20**	**39**	**0.5**	**13**	**34**	**0.5**	**9**
Collection Date						**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	15.2J	<103	124	39.2J	17.1J	158	48.1J	<102	103	50.1J	17.4J	27.5J	88.7J	68.4J	28.7J	18.2J	<105	<95.7	<84.8
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	<97.8	<103	7.5J	<97.0	<92.1	18.1J	<113	<102	<100	<99.1	<108	<83.0	<103	<95.9	<98.6	<90.8	<105	<95.7	<84.8
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<9.8	<10.3	<9.7	<9.7	<9.2	<9.8	<11.3	<10.2	<10.0	<9.9	<10.8	<8.3	<10.3	<9.6	<9.9	<9.1		<9.6	<8.5
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	23.2	4.4J	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	82.4	17.2	<4.2	<5.2	2.0J	<4.9	2.5J	<5.2	<4.8	<4.2
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	4.8J	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
p-Isopropyltoluene	8260	µg/kg	--	--	680	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Methylene Chloride	8260	µg/kg	11,000	53,000	23	11.7J	13.7J	7.4J	11.3J	5.0J	13.1J	4.2J	12.1J	14.2J	12.8J	13.2J	<16.6	<20.6	<19.2	<19.7	<18.2	4.3J	<19.1	<17.0
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<48.9	<51.3	<48.6	<48.5	<46.1	<49.0	<56.3	<51.0	<50.1	<49.6	<53.8	<41.5	<51.6	<48.0	<49.3	<45.4	<52.4	<47.8	<42.4
Naphthalene	8260	µg/kg	3,600	18,000	210	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
o-Xylene	8260	µg/kg	140,000	430,000	--	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Tetrachloroethene	8260	µg/kg	550	2,600	5	<4.9	<5.1	<4.9	<4.9	<4.6	9.5	<5.6	<5.1	13.2	18.1	2.8J	1.4J	<5.2	<4.8	1.9J	4.9	<5.2	<4.8	<4.2
Toluene	8260	µg/kg	820,000	820,000	5,500	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	4.5J	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Trichloroethene	8260	µg/kg	2,800	14,000	18	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	4.5J	10.7	<5.4	<4.2	<5.2	<4.8	8.0	17.2	<5.2	<4.8	<4.2
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<4.9	<5.1	<4.9	<4.9	<4.6	<4.9	<5.6	<5.1	<5.0	<5.0	<5.4	<4.2	<5.2	<4.8	<4.9	<4.5	<5.2	<4.8	<4.2
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<9.8	<10.3	<9.7	<9.7	<9.2	<9.8	<11.3	<10.2	<10.0	<9.9	<10.8	<8.3	<10.3	<9.6	<9.9	<9.1	<10.5	<9.6	<8.5
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<9.8	<10.3	<9.7	<9.7	<9.2	<9.8	<11.3	<10.2	<10.0	<9.9	<10.8	<8.3	<10.3	<9.6	<9.9	<9.1	<10.5	<9.6	<8.5

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BUILDING EXTERIOR																		
Sample ID						**SB-33**	**SB-34**	**SB-34**	**SB-34**	**SB-35**	**SB-35**	**SB-35**	**SB-36**	**SB-36**	**SB-36**	**SB-37**	**SB-37**	**SB-37**	**SB-38**	**SB-38**	**SB-38**	**SB-39**	**SB-39**	**SB-39**
Depth (ft.bls)						**15**	**0.5**	**11**	**20**	**0.5**	**10**	**27**	**0.5**	**17**	**22**	**0.5**	**10**	**30**	**0.5**	**23**	**34**	**0.5**	**10**	**34**
Collection Date						**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**	**7/28/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	10.4J	<93.4	58.5J	29.6J	22.1J	56.1J	18.3J	<106	21.5J	64.6J	109	44.3J	88.9J	<91.6	15.7J	18.0J	<93.0	<89.7	55.3J
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	<88.6	<93.4	<96.3	<97.4	<92.6	<110	<96.4	<106	<88.3	<94.1	<89.6	<89.9	<96.3	<91.6	<96.1	<110	<93.0	<89.7	<108
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<8.9	<9.3	<9.6	<9.7	<9.3	<11.0	<9.6	<10.6	<8.8	<9.4	<9.0	<9.0	<9.6	<9.2	<9.6	<11.0	<9.3	<9.0	<10.8
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	3.3J	<5.5	<4.6	<4.5	<5.4
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
p-Isopropyltoluene	8260	µg/kg	--	--	680	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Methylene Chloride	8260	µg/kg	11,000	53,000	23	<17.7	<18.7	<19.3	<19.5	<18.5	<22.1	<19.3	<21.1	<17.7	<18.8	<17.9	<18.0	<19.3	<18.3	<19.2	6.2J	<18.6	<17.9	<21.7
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<44.3	<46.7	<48.2	<48.7	<46.3	<55.2	<48.2	<52.9	<44.1	<47.1	<44.8	<45.0	<48.2	<45.8	<48.1	<55.1	<46.5	<44.9	<54.2
Naphthalene	8260	µg/kg	3,600	18,000	210	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	18.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
o-Xylene	8260	µg/kg	140,000	430,000	--	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Tetrachloroethene	8260	µg/kg	550	2,600	5	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	2.8J	<4.5	<4.5	<4.8	<4.6	89.2	<5.5	<4.6	<4.5	<5.4
Toluene	8260	µg/kg	820,000	820,000	5,500	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Trichloroethene	8260	µg/kg	2,800	14,000	18	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	23.1	<5.5	<4.6	<4.5	<5.4
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	<4.5	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<4.4	<4.7	<4.8	<4.9	<4.6	<5.5	<4.8	<5.3	<4.4	<4.7	1.7J	<4.5	<4.8	<4.6	<4.8	<5.5	<4.6	<4.5	<5.4
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<8.9	<9.3	<9.6	<9.7	<9.3	<11.0	<9.6	<10.6	<8.8	<9.4	<9.0	<9.0	<9.6	<9.2	<9.6	<11.0	<9.3	<9.0	<10.8
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<8.9	<9.3	<9.6	<9.7	<9.3	<11.0	<9.6	<10.6	<8.8	<9.4	<9.0	<9.0	<9.6	<9.2	<9.6	<11.0	<9.3	<9.0	<10.8

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						BUILDING EXTERIOR																		
Sample ID						**SB-40**	**SB-40**	**SB-40**	**SB-41**	**SB-41**	**SB-41**	**SB-42**	**SB-42**	**SB-42**	**SB-42**	**SB-43**	**SB-43**	**SB-43**	**SB-44**	**SB-44**	**SB-44**	**SB-45**	**SB-45**	**SB-45**
Depth (ft.bls)						**0.5**	**17**	**20**	**0.5**	**15**	**23**	**0.5**	**14**	**21**	**24**	**0.5**	**9**	**27**	**0.5**	**18**	**40**	**0.5**	**19**	**34**
Collection Date						**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	<85.3	45.1J	23.1J	<45.4	<102	<100	54.9J	315	<2,650	85.8J	32.3J	275	<97.6	<143	<122	<110	<130	92.4J	<114
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	<85.3	<121	<91.2	<45.4	<102	<100	<101	33.8J	<2,650	16.4J	<89.8	41.9J	<97.6	<143	<122	<110	<130	<114	<114
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<8.5	<12.1	<9.1	<4.5	<10.2	<10.0	<10.1	12.4	<265	<9.8	<9.0	<8.9	<9.8	<14.3	<12.2	<11.0	<13.0	2.9J	<11.4
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	6.3	133	<133	<4.9	<4.5	9.8	<4.9	<7.2	6.2	<5.5	<6.5	15.3	<5.7
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<4.3	<6.1	<4.6	<2.3	<5.1	3.5J	11.6	158	40.6J	1.4J	<4.5	2.7J	<4.9	<7.2	22.6	<5.5	<6.5	17.5	<5.7
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	65.4	105J	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
p-Isopropyltoluene	8260	µg/kg	--	--	680	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	3.4J	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Methylene Chloride	8260	µg/kg	11,000	53,000	23	12.5J	12.2J	8.8J	5.0J	10.8J	10.5J	7.7J	10.3J	<19.7	6.9J	10.8J	<17.8	<19.5	<28.6	<24.3	<22.0	<26.1	<22.8	<22.7
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<42.7	<60.7	<45.6	<22.7	<51.1	<50.2	<50.6	35.0J	<1,330	<49.2	<44.9	<44.4	<48.8	<71.5	<60.8	<54.9	<65.2	<56.9	<56.8
Naphthalene	8260	µg/kg	3,600	18,000	210	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	1.9J	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
o-Xylene	8260	µg/kg	140,000	430,000	--	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	118	219	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	<4.8	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Tetrachloroethene	8260	µg/kg	550	2,600	5	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	17.6	12.3	566	<4.9	<4.5	45.5	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Toluene	8260	µg/kg	820,000	820,000	5,500	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	68.0	56.3J	<4.9	<4.5	<4.4	<4.9	<7.2	2.4J	<5.5	<6.5	4.6J	<5.7
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	11.1	15.7	<133	<4.9	<4.5	4.2J	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Trichloroethene	8260	µg/kg	2,800	14,000	18	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	3.8J	20.2	<133	<4.9	<4.5	4.1J	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	3.6J	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<4.3	<6.1	<4.6	<2.3	<5.1	<5.0	<5.1	4.5J	<133	<4.9	<4.5	<4.4	<4.9	<7.2	<6.1	<5.5	<6.5	<5.7	<5.7
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<8.5	<12.1	<9.1	<4.5	<10.2	<10.0	<10.1	21.0	<265	<9.8	<9.0	<8.9	<9.8	<14.3	<12.2	<11.0	<13.0	<11.4	<11.4
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<8.5	<12.1	<9.1	<4.5	<10.2	<10.0	<10.1	234	428	<9.8	<9.0	<8.9	<9.8	<14.3	<12.2	<11.0	<13.0	<11.4	<11.4

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.8: VOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern						**BUILDING EXTERIOR**												
Sample ID						**SB-46**	**SB-46**	**SB-46**	**SB-47**	**SB-47**	**SB-47**	**SB-48**	**SB-48**	**SB-48**	**SB-49**	**SB-49**	**SB-49**	**MW-12D**
Depth (ft.bls)						**0.5**	**19**	**25**	**0.5**	**20**	**34**	**0.5**	**7**	**17.5**	**0.5**	**10**	**24**	**20**
Collection Date						**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	56.3J	<3,760	161	64.7J	157	17.5J	77.2J	21.3J	<86.7	1470J	30	25.9J	15.7J
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	<108	<3,760	10J	9J	9.6J	<112	<104	<91.8	<86.7	<2,480	<95.4	<100	<93.4
n-Butylbenzene	8260	µg/kg	110,000	110,000	2,400	<5.4	<188	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
sec-Butylbenzene	8260	µg/kg	--	--	2,200	<5.4	337	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
Chloroethane (Ethyl chloride)	8260	µg/kg	2,100,000	2,100,000	16,000	<10.8	<376	<5.3	<9.8	<12.4	<11.2	<10.4	<9.2	<8.7	<248	<9.5	<10.0	<9.3
1,4-Dichlorobenzene	8260	µg/kg	2,400	12,000	70	<5.4	78.2J	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
1,1-Dichloroethane	8260	µg/kg	3,300	17,000	30	<5.4	1,520	17.2	<4.9	<6.2	3J	<5.2	<4.6	<4.3	<124	<4.8	<5.0	8.3
cis-1,2-Dichloroethene	8260	µg/kg	32,000	400,000	360	<5.4	347	27	2.7J	28.9	40.3	<5.2	1.7J	<4.3	<124	<4.8	<5.0	101
trans-1,2-Dichloroethene	8260	µg/kg	30,000	140,000	510	<5.4	<188	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	2.5J
Ethylbenzene	8260	µg/kg	5,400	27,000	8,100	<5.4	<188	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
Isopropylbenzene (Cumene)	8260	µg/kg	270,000	270,000	1,300	<5.4	86.9J	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
p-Isopropyltoluene	8260	µg/kg	--	--	680	<5.4	1,570	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
Methylene Chloride	8260	µg/kg	11,000	53,000	23	<21.7	<751	<21.1	<19.6	<24.9	<22.4	4J	<18.4	<17.3	<495	7.6J	<20.1	<18.7
4-Methyl-2-pentanone (MIBK)	8260	µg/kg	1,100,000	3,400,000	430	<54.2	<1,880	<52.6	<49.1	<62.2	<56.0	<52.0	<45.9	<43.4	<1,240	<47.7	<50.2	<46.7
Naphthalene	8260	µg/kg	3,600	18,000	210	<5.4	1,450	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	34.5
o-Xylene	8260	µg/kg	140,000	430,000	--	<5.4	1,710	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
n-Propylbenzene	8260	µg/kg	260,000	260,000	1,500	<5.4	84.2J	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
tert-Butylbenzene	8260	µg/kg	--	--	1,700	<5.4	86.7J	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
Tetrachloroethene	8260	µg/kg	550	2,600	5	5.6	1,330	<5.3	22.5	<6.2	<5.6	11.5	<4.6	<4.3	65.0J	<4.8	<5.0	<4.7
Toluene	8260	µg/kg	820,000	820,000	5,500	<5.4	142J	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	53.2J	1.9J	<5.0	2.9J
1,1,1-Trichloroethane	8260	µg/kg	640,000	640,000	1,200	<5.4	8,210	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
Trichloroethene	8260	µg/kg	2,800	14,000	18	<5.4	<188	<5.3	8.7	<6.2	<5.6	14.7	2.4J	<4.3	1,440	<4.8	<5.0	5
1,2,4-Trimethylbenzene	8260	µg/kg	12,000	52,000	6,700	<5.4	1,420	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
1,3,5-Trimethylbenzene	8260	µg/kg	160,000	180,000	6,700	<5.4	1,270	<5.3	<4.9	<6.2	<5.6	<5.2	<4.6	<4.3	<124	<4.8	<5.0	<4.7
Vinyl chloride	8260	µg/kg	60	1,700	0.19	<10.8	72.3J	<10.5	<9.8	<12.4	<11.2	<10.4	<9.2	<8.7	<248	<9.5	<10.0	<9.3
m&p-Xylene	8260	µg/kg	120,000	390,000	--	<10.8	618	<10.5	<9.8	<12.4	<11.2	<10.4	<9.2	<8.7	<248	<9.5	<10.0	<9.3

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						**BLACK OXIDE ROOM**									**PAINT STORAGE ROOM**			**PAINT ROOM**		
Sample ID						**SB-6**	**SB-6**	**SB-6**	**SB-7**	**SB-7**	**SB-7**	**SB-8**	**SB-8**	**SB-8**	**SB-9**	**SB-9**	**SB-9**	**SB-10**	**SB-10**	**SB-10**
Depth (ft. bls)						**0.5**	**21**	**26**	**0.5**	**10**	**19**	**0.5**	**5**	**13**	**0.5**	**19**	**35**	**0.5**	**11**	**15**
Collection Date						**8/10/2011**	**8/10/2011**	**8/10/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**	**8/5/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Benzo(a)pyrene	8270	µg/kg	15	210	59	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Chrysene	8270	µg/kg	15,000	210,000	18,000	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Dibenzofuran	8270	µg/kg	--	--	--	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<1,930	<2,160	<2,070	<1,770	<1,810	<2,000	<1,720	<2,000	<1,930	<1,710	<2,050	<1,880	<1,800	<2,090	<2,000
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	108	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Naphthalene	8270	µg/kg	3,600	18,000	210	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
4-Nitrophenol	8270	µg/kg	--	--	--	<1,930	<2,160	<2,070	<1,770	<1,810	<2,000	<1,720	<2,000	<1,930	<1,710	<2,050	<1,880	<1,800	<2,090	<2,000
Phenanthrene	8270	µg/kg	--	--	68,000	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<386	<432	<414	<354	<362	<401	<343	<399	<354	<342	<411	<377	<361	<418	<399

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						**WASTEWATER ROOM**											
Sample ID						**SB-12**	**SB-12**	**SB-12**	**SB-13**	**SB-13**	**SB-13**	**SB-14**	**SB-14**	**SB-14**	**SB-15**	**SB-15**	**SB-15**
Depth (ft. bls)						**0.5**	**7**	**30**	**0.5**	**8**	**23**	**0.5**	**16**	**21**	**0.5**	**7**	**24**
Collection Date						**8/4/2011**	**8/4/2011**	**8/4/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Benzo(a)pyrene	8270	µg/kg	15	210	59	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Chrysene	8270	µg/kg	15,000	210,000	18,000	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Dibenzofuran	8270	µg/kg	--	--	--	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<1,820	<1,860	<1,960	<1,950	<2,030	<2,140	<1,940	<1,890	<1,910	<1,940	<1,820	<1,860
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Naphthalene	8270	µg/kg	3,600	18,000	210	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
4-Nitrophenol	8270	µg/kg	--	--	--	<1,820	<1,860	<1,960	<1,950	<2,030	<2,140	<1,940	<1,890	<1,910	<1,940	65.2	<1,860
Phenanthrene	8270	µg/kg	--	--	68,000	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<364	<372	<392	<390	<407	<429	<388	<378	<382	<388	<364	<372

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						HAZARDOUS WASTE STORAGE AREA														
Sample ID						**SB-16**	**SB-16**	**SB-16**	**SB-17**	**SB-17**	**SB-17**	**SB-18**	**SB-18**	**SB-18**	**SB-19**	**SB-19**	**SB-19**	**SB-20**	**SB-20**	**SB-20**
Depth (ft. bls)						**0.5**	**10**	**19**	**0.5**	**10**	**22**	**0.5**	**12**	**24**	**0.5**	**10**	**19**	**0.5**	**5**	**13**
Collection Date						**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Benzo(a)pyrene	8270	µg/kg	15	210	59	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Chrysene	8270	µg/kg	15,000	210,000	18,000	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Dibenzofuran	8270	µg/kg	--	--	--	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<1,970	<2,190	<2,010	<1,990	<1,790	<1,770	<2,010	<2,130	<2,010	<2,110	<1,960	<1,930	<2,030	<1,770	<1,850
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Naphthalene	8270	µg/kg	3,600	18,000	210	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
4-Nitrophenol	8270	µg/kg	--	--	--	<1,970	<2,190	<2,010	<1,990	<1,790	<1,770	<2,010	<2,130	<2,010	<2,110	<1,960	<1,930	<2,030	<1,770	<1,850
Phenanthrene	8270	µg/kg	--	--	68,000	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<393	<438	<402	<397	<358	<353	<403	<426	<403	<423	<392	<386	<406	<353	<370

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						BUILDING EXTERIOR																		
Sample ID						**SB-21**	**SB-21**	**SB-21**	**SB-22**	**SB-22**	**SB-22**	**SB-23**	**SB-23**	**SB-23**	**SB-24**	**SB-24**	**SB-24**	**SB-25**	**SB-25**	**SB-25**	**SB-26**	**SB-26**	**SB-26**	**SB-27**
Depth (ft. bls)						**0.5**	**6**	**17**	**0.5**	**10**	**20**	**0.5**	**10**	**26**	**0.5**	**15**	**28**	**0.5**	**13**	**24**	**0.5**	**15**	**28**	**0.5**
Collection Date						**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Benzo(a)pyrene	8270	µg/kg	15	210	59	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Chrysene	8270	µg/kg	15,000	210,000	18,000	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Dibenzofuran	8270	µg/kg	--	--	--	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<2,310	<2,060	<2,090	<96,700	<2,010	<2,230	<478,000	<1,980	<1,950	<2,070	<2,210	<1,810	<97,400	<1,930	<1,800	<1,930	<1,810	<1,870	<1,850
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<461	<412	<419	<19,300	592	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<461	<412	<419	<19,300	89.5J	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	118J	<360	<386	<363	<374	<370
Naphthalene	8270	µg/kg	3,600	18,000	210	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	188J	<360	<386	<363	<374	<370
4-Nitrophenol	8270	µg/kg	--	--	--	97.9J	<2060	<2,090	<96,700	<2,010	<2,230	<478,000	<1,980	<1,950	<2,070	<2,210	<1,810	<97,400	<1,930	<1,800	<1,930	<1,810	<1,870	<1,850
Phenanthrene	8270	µg/kg	--	--	68,000	<461	<412	<419	<19,300	<402	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<461	<412	<419	<19,300	162J	<445	<95,600	<397	<391	<414	<442	<361	<19,500	<385	<360	<386	<363	<374	<370

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						BUILDING EXTERIOR																		
Sample ID						**SB-27**	**SB-27**	**SB-28**	**SB-28**	**SB-28**	**SB-29**	**SB-29**	**SB-29**	**SB-30**	**SB-30**	**SB-30**	**SB-31**	**SB-31**	**SB-31**	**SB-32**	**SB-32**	**SB-32**	**SB-33**	**SB-33**
Depth (ft. bls)						**20**	**26**	**0.5**	**8**	**14**	**0.5**	**10**	**18**	**0.5**	**15**	**29**	**0.5**	**20**	**39**	**0.5**	**13**	**34**	**0.5**	**9**
Collection Date						**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Benzo(a)pyrene	8270	µg/kg	15	210	59	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Chrysene	8270	µg/kg	15,000	210,000	18,000	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Dibenzofuran	8270	µg/kg	--	--	--	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<1,860	<1,790	<1,870	<1,830	<1,870	<2,010	<2,050	<1,870	<2,000	<1,930	<1,770	<1,930	<1,880	<1,840	<2,010	<2,300	<1,980	<1,910	86.7J
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Naphthalene	8270	µg/kg	3,600	18,000	210	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
4-Nitrophenol	8270	µg/kg	--	--	--	<1,860	<1,790	<1,870	<1,830	<1,870	<2,010	<2,050	84.0J	<2,000	<1,930	<1,770	<1,930	<1,880	<1,840	<2,010	<2,300	<1,980	<1,910	<1,930
Phenanthrene	8270	µg/kg	--	--	68,000	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<371	<358	<375	<367	<374	<402	<410	<373	<399	<387	<354	<385	<376	<369	<402	<460	<396	<381	<386

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						BUILDING EXTERIOR																	
Sample ID						SB-33	SB-34	SB-34	SB-34	SB-35	SB-35	SB-35	SB-36	SB-36	SB-36	SB-37	SB-37	SB-37	SB-38	SB-38	SB-38	SB-39	SB-39
Depth (ft. bls)						15	0.5	11	20	0.5	10	27	0.5	17	22	0.5	10	30	0.5	23	34	0.5	10
Collection Date						7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Benzo(a)pyrene	8270	µg/kg	15	210	59	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Chrysene	8270	µg/kg	15,000	210,000	18,000	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Dibenzofuran	8270	µg/kg	--	--	--	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<1,910	<1,900	<20,200	<1,860	<1,950	<1,970	<2,400	<1,910	<2,120	<2,050	<1,880	<1,870	<2,110	<2,030	<2,110	<1,950	<1,860	<1,780
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<382	<380	2500J	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	105J	<373	<423	<405	<423	<390	<372	<357
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	179J	<373	<423	<405	<423	<390	<372	<357
Naphthalene	8270	µg/kg	3,600	18,000	210	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	96.4J	<373	<423	<405	<423	<390	<372	<357
4-Nitrophenol	8270	µg/kg	--	--	--	<1,910	<1,900	<20,200	<1,860	<1,950	<1,970	<2,400	<1,910	<2,120	<2,050	<1,880	<1,870	<2,110	<2,030	<2,110	<1,950	<1,860	<1,780
Phenanthrene	8270	µg/kg	--	--	68,000	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<382	<380	<4,040	<372	<390	<394	<481	<382	<424	<411	<375	<373	<423	<405	<423	<390	<372	<357

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.

ft. bls=feet below land surface

µg/kg= micrograms per kilogram

SRG = Soil Remediation goals

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.

-- Not listed on the IHSB PSRG Table, August 2011

*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						BUILDING EXTERIOR																			
Sample ID						**SB-39**	**SB-40**	**SB-40**	**SB-40**	**SB-41**	**SB-41**	**SB-41**	**SB-42**	**SB-42**	**SB-42**	**SB-42**	**SB-43**	**SB-43**	**SB-43**	**SB-44**	**SB-44**	**SB-44**	**SB-45**	**SB-45**	**SB-45**
Depth (ft. bls)						**34**	**0.5**	**17**	**20**	**0.5**	**15**	**23**	**0.5**	**14**	**21**	**24**	**0.5**	**9**	**27**	**0.5**	**18**	**40**	**0.5**	**19**	**34**
Collection Date						**7/28/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/2/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<438	<368	<382	<366	<418	<348	<480	<398	469	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	88.9J	<353	<345	<368	<421	<362	<9,080	<451	<359
Benzo(a)pyrene	8270	µg/kg	15	210	59	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Chrysene	8270	µg/kg	15,000	210,000	18,000	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	92.3J	<353	<345	<368	<421	<362	<9,080	<451	<359
Dibenzofuran	8270	µg/kg	--	--	--	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<2,190	<1,840	<1,910	<1,830	<2,090	<1,740	<2,400	<1,990	<2,020	<2,010	<1,990	<1,870	<1,760	<1,730	<1,840	<2,100	<1,810	<45,400	<2,260	<1,790
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	240J	<345	<368	<421	<362	<9,080	<451	<359
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<438	<368	<382	<366	<418	<348	<480	348J	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<438	<368	<382	<366	<418	<348	<480	<398	380J	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Naphthalene	8270	µg/kg	3,600	18,000	210	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
4-Nitrophenol	8270	µg/kg	--	--	--	<2,190	<1,840	<1,910	<1,830	<2,090	<1,740	<2,400	<1,990	<2,020	<2,010	<1,990	<1,870	<1,760	<1,730	<1,840	<2,100	<1,810	<45,400	<2,260	<1,790
Phenanthrene	8270	µg/kg	--	--	68,000	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<438	<368	<382	<366	<418	<348	<480	<398	<405	<402	<399	<374	<353	<345	<368	<421	<362	<9,080	<451	<359

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.9: SVOC Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-5913

Area of Concern						BUILDING EXTERIOR												
Sample ID						SB-46	SB-46	SB-46	SB-47	SB-47	SB-47	SB-48	SB-48	SB-48	SB-49	SB-49	SB-49	MW-12D
Depth (ft. bls)						0.5	19	25	0.5	20	34	0.5	7	17.5	0.5	10	24	20
Collection Date						8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
3&4-Methylphenol(m&p Cresol)	8270	µg/kg	62,000	620,000	4,400	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	<420
Anthracene	8270	µg/kg	3,400,000	34,000,000	660,000	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	95.3J
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	90.1J
Benzo(a)pyrene	8270	µg/kg	15	210	59	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	80.8J
Chrysene	8270	µg/kg	15,000	210,000	18,000	<9,110	<8,850	59.3J	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	81J
Dibenzofuran	8270	µg/kg	--	--	--	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	73.7J
3,3-Dichlorobenzidine	8270	µg/kg	1,100	3,800	--	<45,500	<44,200	<2,180	<45,400	<1,950	<1,980	<91,300	<1,880	<1,920	<1,980	<2,100	<2,070	<2,100
2,4-Dinitrotoluene	8270	µg/kg	1,600	5,500	2	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	<420
2,6-Dinitrotoluene	8270	µg/kg	12,000	120,000	--	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	<420
bis(2-Ethylhexyl)phthalate	8270	µg/kg	35,000	120,000	7,200	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	<420
Fluoranthene	8270	µg/kg	460,000	4,400,000	330,000	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	265J
Fluorene	8270	µg/kg	460,000	4,400,000	56,000	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	99.9J
1-Methylnaphthalene	8270	µg/kg	22,000	99,000	55	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	<420
2-Methylnaphthalene	8270	µg/kg	62,000	370,000	1,600	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	<420
Naphthalene	8270	µg/kg	3,600	18,000	210	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	370J
4-Nitrophenol	8270	µg/kg	--	--	--	<45,500	<44,200	201J	<45,400	<1,950	<1,980	<91,300	<1,880	<1,920	<1,980	<2,100	<2,070	<2,100
Phenanthrene	8270	µg/kg	--	--	68,000	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	344J
Pyrene	8270	µg/kg	340,000	3,400,000	220,000	<9,110	<8,850	<435	<9,090	<390	<396	<18,300	<377	<385	<396	<419	<414	189J

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IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
ft. bls=feet below land surface
µg/kg= micrograms per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
-- Not listed on the IHSB PSRG Table, August 2011
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							BLACK OXIDE ROOM								PAINT STORAGE ROOM			PAINT ROOM		
Sample ID							SB-6	SB-6	SB-6	SB-7	SB-7	SB-7	SB-8	SB-8	SB-8	SB-9	SB-9	SB-9	SB-10	SB-10
Depth (ft. bls)							0.5	21	26	0.5	10	19	0.5	5	13	0.5	19	35	0.5	11
Collection Date							8/10/2011	8/10/2011	8/10/2011	8/4/2011	8/4/2011	8/4/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011	8/5/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	BG	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.03	0.015	0.0024J	0.015	0.037	0.022	0.029	0.051	0.025	0.0072	0.047	0.017	0.022	0.028
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<0.52	<0.63	<0.59	0.51	<0.48	<5.0	<0.47	<0.56	<0.5	<0.46	<0.54	<0.53	<0.50	<0.52
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	1.4	2.7	1.6	6.3	1.6	2	2.8	3.1	3.5	1.3	3.1	2.2	<0.50	3.8
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	0.57	0.96	1.4	0.87	0.68	0.66	0.76	0.65	0.79	0.14	0.82	0.80	0.62	0.76
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	1.0	1.2	7.4	0.37	0.69	0.74	0.46	0.39	0.22	<0.093	0.45	0.91	0.41	0.55
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	8.3	8.2	21.8	12.1	9.6	8.9	7.7	8.1	6.2	3.2	11.6	35.8	13.7	8.2
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	6.7	8.5	13	12.7	9.1	3.7	7.2	7.7	11.0	0.92	9.4	4.7	9.1	7.7
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	11.7	14.2	16.7	7.1	12.4	22.2	8.4	13.2	28.3	1.5	12.3	9.7	10.1	13
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	255	829	665	314	409	420	397	295	636	34.6	667	2000	392	443
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	5.7	7.2	25.7	7.5	9.5	8.6	8.9	6.6	6.0	1.0	11.0	34.4	15.5	8.6
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	0.89J	2.2	1.7	0.64J	1.5	1.3	0.56J	0.77J	<1.0	<0.93	1.1	0.81J	<0.99	0.89J
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	0.083J	0.21J	0.26J	0.27J	<0.48	<5.0	<0.47	<0.56	<0.5	<0.46	<0.54	<0.53	<0.50	<0.52
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	<1.0	<1.3	1.1J	0.44J	0.4J	0.43J	<0.95	<1.1	<1.0	<0.93	<1.1	<1.1	<0.99	<1.0
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	34.3	44.5	107	54.3	41	50.3	41.2	29.8	33.4	5.3	40.8	52.5	37.5	44.5
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.13	0.28	<0.17	<0.16	<0.098	<0.14	<0.12	<0.12	<0.11	0.16	<0.12	<0.096	<0.12	<0.11
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	<2.8	<3.3	<2.1	0.86J	<1.6	0.41J	<1.9	<3.0	<2.7	<0.097	0.32J	0.7J	<2.2	0.37J
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	8.3	8.2	21.8	11.2	9.6	8.5	7.7	8.1	6.2	3.2J	11.3	35.1	13.7	7.8

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
BG = Background concentrations range

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							WASTEWATER ROOM											
Sample ID							SB-10	SB-12	SB-12	SB-12	SB-13	SB-13	SB-13	SB-14	SB-14	SB-14	SB-15	SB-15
Depth (ft. bls)							15	0.5	7	30	0.5	8	23	0.5	16	21	0.5	7
Collection Date							8/5/2011	8/4/2011	8/4/2011	8/4/2011	7/25/2011	7/25/2011	7/25/2011	7/26/2011	7/26/2011	7/26/2011	8/4/2011	8/4/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	BG	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.029	0.0064	0.041	0.0011J	0.019	0.049	0.0016J	0.025	0.0024J	0.014	0.021	0.021
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<0.49	<2.6	<0.54	<2.7	<0.37	0.28J	<4.1	<0.53	<4.8	<2.0	<2.7	<0.53
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	3.8	3.4	2.9	1.9J	1.6	1.2	3.1J	3.1	4.9	2.1	2.1J	1.7
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	0.46	0.94	0.88	0.97	0.61	0.51	1.9	0.61	4.2	0.69	0.42J	0.51
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	0.2	<0.51	2.2	<0.54	0.98	0.23	<0.82	0.57	<0.95	<0.40	<0.54	0.35
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	5.3	8.6	8	14	8.4	5.9	28.9	13.4	125	12.5	4.3	8.5
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	7	16	10.8	3.7	7.7	5.8	12.3	10.1	0.82J	3.3	5.6	7.6
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	8.2	7.7	16.9	9.8	12.8	13.6	12.7	20.7	<4.8	6.3	8.1	11.4
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	278	733	474	415	363	214	1,120	362	405	276	601	368
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	6	4.1	9.3	20.8	7.4	5.0	19.7	9.7	60.3	7.4	6.3	8.9
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	<0.99	4.1J	1.4	<5.4	0.82	0.84J	5.7J	0.70J	5.2J	2.2J	<5.4	<1.1
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	<0.49	<2.6	0.13J	0.19J	0.041J	<0.47	0.56J	0.12J	0.62J	<2.0	<2.7	<0.53
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	<0.99	1.5J	0.47J	<5.4	<0.75	<0.93	<0.82	<1.1	<9.5	<4.0	<5.4	<1.1
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	19.2	144	55.5	36.7	33.9	21.7	58.5	37.4	78.8	17.0	16.1	30.3
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.091	<0.14	<0.13	<0.092	<0.15	<0.12	<0.11	<0.13	<0.11	<0.094	<0.17	<0.11
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	<1.5	<1.9	<2.2	<1.7	0.15J	0.61J	1J	<2.6	0.21J	0.42J	<1.9	<1.3
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	5.3	8.6	8	14	8.2	5.3	27.9	13.4	125	12.1	4.3J	8.5

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
BG = Background concentrations range

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							HAZARDOUS WASTE STORAGE AREA														
Sample ID							SB-15	SB-16	SB-16	SB-16	SB-17	SB-17	SB-17	SB-18	SB-18	SB-18	SB-19	SB-19	SB-19	SB-20	SB-20
Depth (ft. bls)							24	0.5	10	19	0.5	10	22	0.5	12	24	0.5	10	19	0.5	5
Collection Date							8/4/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	BG	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	<0.0056	0.022	0.063	0.0049J	0.019	0.045	0.0022J	0.021	0.024	0.014	0.021	0.049	0.0036J	0.026	0.026
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<2.7	<2.9	<0.60	<0.58	<0.58	0.49	<0.50	<0.55	<0.62	1.5J	<0.62	<0.46	<0.50	<0.58	<0.51
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	2.8	3.8	3.6	1.9	3.3	2.7	0.81	1.6	1.8	2J	3.1	3	4.9	2.1	2.2
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	0.7	0.62	0.83	0.95	0.69	0.53	0.26	0.93	0.74	0.66	1.3	0.66	0.91	0.72	0.46
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	<0.54	<0.58	0.44	0.88	0.39	0.12	<0.099	2.3	0.46	<0.50	0.67	0.91	0.61	0.53	0.079J
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	9.3	7.4	9.5	4.9	27.8	3.7	0.22J	39.6	7.9	6.7	20.2	7.7	13.3	9.8	6.8
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	11.2	8.4	12.7	37.3	11.5	6	4.1	15.8	12.5	9.9	11.4	19.2	11.4	9.9	5.6
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	14.7	14.2	12.8	19.1	18.1	9.9	18.4	11.1	13	12.5	9	10.5	38.4	11.4	8.3
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	544	415	376	1,290	463	438	366	437	294	265	518	541	2,540	426	356
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	10.3	7.3	9.4	6.8	11.2	5.2	1.4	11	7.7	7	12.5	11.4	19.6	9.4	6
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	<5.4	<5.8	1.3	0.86J	0.48J	0.79J	<0.99	1.1	1.7	<5.0	0.64J	0.67J	<1.0	0.79J	0.48J
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	<2.7	<2.9	<0.60	<0.58	<0.58	<0.48	<0.50	0.096J	<0.62	<2.5	<0.62	<0.46	<0.50	0.24J	<0.51
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	<5.4	<5.8	<1.2	<1.2	<1.2	<0.95	<0.99	0.63J	<1.2	<5.0	<1.2	<0.93	<1.0	<1.2	<1.0
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	39.1	43.6	49	83.5	40.9	17.9	3.8	62.2	44.6	36.3	82.6	35.9	76.4	51.6	26
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.15	0.58	50.5	<0.11	0.58	2.6	<0.13	0.34	0.17	<0.11	<0.10	<0.10	<0.12	0.37	8
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	<2.3	<2.6	<2.3	<2.4	<3.0	<2.6	0.62J	<3.0	<2.1	0.26J	<3.1	<2.9	<2.4	<1.8	<2.1
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	9.3	7.4	9.5	4.9J	27.8	3.7J	0J	39.6	7.9	6.4	20.2	7.7	13.3	9.8	6.8

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
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Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							BUILDING EXTERIOR																	
Sample ID							**SB-20**	**SB-21**	**SB-21**	**SB-21**	**SB-22**	**SB-22**	**SB-22**	**SB-23**	**SB-23**	**SB-23**	**SB-24**	**SB-24**	**SB-24**	**SB-25**	**SB-25**	**SB-25**	**SB-26**	**SB-26**	**SB-26**
Depth (ft. bls)							**13**	**0.5**	**6**	**17**	**0.5**	**10**	**20**	**0.5**	**10**	**26**	**0.5**	**15**	**28**	**0.5**	**13**	**24**	**0.5**	**15**	**28**
Collection Date							**8/3/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/25/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**BG**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.00092J	0.034	0.034	0.031	0.004J	0.034	0.04	0.027	0.022	0.00028J	0.028	0.039	0.0014J	0.030	0.024	0.0025J	0.023	0.0095	<0.0056
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<0.55	0.25J	0.38	<0.49	<0.49	<0.45	<0.55	<0.54	<2.6	<2.4	<0.59	<0.47	<1.6	<0.56	<0.56	<2.6	0.39J	<2.7	<0.53
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	2.1	1.6	2.0	1.2	1.6	1.7	2.6	3.1	5.2	3.7	1.9	3.3	1.9	4.4	2.1	<2.6	2.4	2.0J	1.2
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	0.57	0.63	0.74	0.65	0.33	1.2	0.71	0.70	1.6	2.6	0.83	0.74	0.81	0.71	0.64	1.1	0.72	0.93	0.34
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	0.21	0.57	2.0	0.97	<0.098	2.0	0.52	0.55	<0.52	<0.49	0.51	1.1	<0.33	0.45	0.23	<0.52	0.29	<0.54	0.072J
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	2.7	9.8	10.5	7.2	4.3	20.0	13.3	25.9	6.5	15.9	12.1	7.9	0.92J	10.6	7.8	36.1	10.5	2.5J	0.42J
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	4.5	7.7	7.2	8.4	18.0	8.2	9.3	10.5	35.2	1.7J	6.2	9.0	17.0	9.8	7.5	3.0	5.6	20.7	0.50J
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	10.1	13.4	13.0	20.0	5.7	9.1	14.9	12.5	19.1	480	17.4	15.3	9.2	14.5	7.8	9.0	10.2	6.6	6.9
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	611	382	475	410	229	324	290	250	965	2340	373	291	297	572	286	540	395	466	136
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	4.9	7.3	8.6	6.1	7.8	17.8	12.3	24.0	6.7	24.6	10.3	7.9	0.69J	9.6	7.2	15.4	8.0	2.0J	1.0
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	<1.1	0.95	1.6	1.2	0.76J	1.4	1.3	1.7	<5.2	3.5J	0.99J	1.1	1.4J	0.67J	<1.1	<5.2	0.67J	<5.4	<1.1
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	<0.55	<0.43	0.056J	<0.49	0.34J	<0.45	<0.55	0.095J	0.18J	<2.4	<0.59	<0.47	<1.6	<0.56	<0.56	<2.6	<0.51	<2.7	<0.53
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	<1.1	<0.85	0.44J	<0.98	<0.98	<0.91	<1.1	<1.1	<5.2	1.5J	<1.2	<0.94	<3.3	<1.1	<1.1	<5.2	<1.0	<5.4	<1.1
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	23.2	34.6	54.3	45.4	40.9	56.5	40.1	77.7	66.4	103	39.2	39.2	13.4	43.8	20.5	60.8	30.4	37.2	9.9
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.097	<0.14	<0.14	<0.13	0.14	<0.11	<0.11	<0.099	<0.14	<0.11	<0.12	<0.17	<0.11	<0.15	0.16	<0.12	<0.092	<0.091	<0.13
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	<2.5	<1.2	<1.5	<1.8	<0.86	<2.1	<1.4	<2.8	0.32J	0.37J	<1.8	<2.0	0.51	<3.0	<2.2	0.31J	<2.2	<2.6	<2.8
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	2.7J	9.8	10.5	7.2	4.3J	20.0	13.3	25.9	6.2	15.5	12.1	7.9	0.41J	10.6	7.8	35.8	10.5	2.5J	4.2J

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
BG = Background concentrations range

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							BUILDING EXTERIOR																	
Sample ID							**SB-27**	**SB-27**	**SB-27**	**SB-28**	**SB-28**	**SB-28**	**SB-29**	**SB-29**	**SB-29**	**SB-30**	**SB-30**	**SB-30**	**SB-31**	**SB-31**	**SB-31**	**SB-32**	**SB-32**	**SB-32**	**SB-33**
Depth (ft. bls)							**0.5**	**20**	**26**	**0.5**	**8**	**14**	**0.5**	**10**	**18**	**0.5**	**15**	**29**	**0.5**	**20**	**39**	**0.5**	**13**	**34**	**0.5**
Collection Date							**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	**8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	***8/4/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**	**7/27/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**BG**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.0084	0.017	<0.0049	0.016	0.0074	0.0024J	0.020	0.016	0.0013J	0.049	0.0067	0.0017J	0.016	0.018	0.0027J	0.012	0.011	0.0011J	0.0034J
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<0.55	<0.48	<0.48	<0.55	<0.54	<2.6	<2.9	<2.6	<0.55	<0.61	0.32J	<0.49	<0.47	<2.7	<0.55	<0.57	<0.68	<0.56	<0.52
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	2.0	1.4	<0.48	1.6	0.39J	2.2J	2.2J	1.8J	<0.55	4.0	1.4	0.50	1.7	5.8	0.92	1.6	2.8	0.58	0.59
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	1.4	0.19	0.68	0.63	0.42	1.0	1.2	0.92	1.2	0.77	0.90	1.3	0.43	1.9	0.79	0.71	1.1	0.38	0.80
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	0.67	<0.097	0.62	0.10J	<0.11	<0.52	<0.57	<0.53	1.7	1.1	1.3	1.1	0.56	<0.55	<0.11	0.74	0.94	<0.11	<0.10
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	15.6	0.87	5.4	4.5	0.30J	0.56J	8.0	2.5J	0.30J	7.2	5.5	36.1	13.7	10.4	6.8	10.5	6.8	0.94	9.2
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	9.1	4.3	3.2	5.2	1.5	8.8	11.8	10.2	17.7	8.1	30.1	2.2	10.5	23.3	2.7	8.9	10.0	3.4	9.0
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	6.3	3.6	6.6	8.4	5.1	4.4	13.7	8.4	9.2	8.8	16.2	17.6	9.4	23.6	14.5	10.2	12.1	6.1	5.3
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	565	145	506	107	190	318	484	336	589	501	429	508	295	1,300	579	401	374	257	393
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	15.4	0.61	6.9	4.6	<0.54	3.0	8.4	1.4J	<0.55	6.6	6.9	15.0	5.5	10.5	3.3	7.1	7.6	1.7	8.8
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	0.49J	<0.97	1.3	1.2	<1.1	<5.2	<5.7	<5.3	1.6	0.93J	0.75J	1.2	<0.94	3.1J	0.65J	1.0J	1.5	1.1J	0.76J
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	<0.55	<0.48	0.039J	<0.55	<0.54	0.17J	<2.9	<2.6	0.12J	0.098J	0.090J	0.10J	<0.47	0.45J	0.037J	0.061J	<0.68	<0.56	0.27J
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	<1.1	<0.97	<0.97	<1.1	<1.1	<5.2	<5.7	<5.3	0.96J	0.54J	0.64J	0.96J	<0.94	<5.5	0.66J	0.44J	1.1J	0.32J	<1.0
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	59.9	3.2	51.9	18.8	1.4	34.9	51.8	17.5	62.6	46.6	49.4	53.1	26.1	44.5	38.1	47.6	60.2	12.6	39.3
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.11	<0.11	<0.12	0.45	0.44	0.22	0.62	0.19	0.24	9.1	0.21	<0.13	0.28	<0.16	0.17	<0.17	<0.21	<0.17	0.16
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	<2.6	<2.4	<2.8	<2.9	0.30J	0.92J	<3.0	0.39J	0.28J	<3.0	0.29J	0.40J	<1.2	0.27J	<1.1	<1.2	<1.9	0.39J	<1.5
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	15.6	0.87J	5.4	4.5J	0.0J	0.0J	8.0	2.1J	0.020J	7.2	5.2	35.7	13.7	10.1	6.8	10.5	6.8	0.55J	9.2

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.
Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)
IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
BG = Background concentrations range
Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.
ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							BUILDING EXTERIOR																	
Sample ID							SB-33	SB-33	SB-34	SB-34	SB-34	SB-35	SB-35	SB-35	SB-36	SB-36	SB-36	SB-37	SB-37	SB-37	SB-38	SB-38	SB-38	SB-39	SB-39
Depth (ft. bls)							9	15	0.5	11	20	0.5	10	27	0.5	17	22	0.5	10	30	0.5	23	34	0.5	10
Collection Date							7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	BG	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.0015J	0.0015J	0.00085J	0.0065	0.0012J	0.016	0.014	0.019	0.018	0.060	0.057	0.0028J	0.012	0.045	0.0024J	0.045	0.0055	0.0078	0.0025J
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<0.50	<0.54	<0.58	<0.55	<2.7	<0.55	<0.51	<0.69	<0.53	<0.61	<0.52	<0.56	0.26J	<0.59	<0.54	<0.52	<2.8	<0.52	<0.48
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	1.7	1.2	0.54J	2.0	5.2	0.66	1.4	3.1	1.4	2.1	1.6	0.59	0.82	1.7	0.44J	2.3	4.4	1.4	0.87
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	0.56	0.50	0.96	0.66	1.2	1.6	1.2	1.4	0.60	1.2	0.99	1.4	1.0	1.1	1.6	0.59	1.4	0.96	0.65
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	<0.099	<0.11	2.8	<0.11	<0.54	2.8	0.33	0.72	<0.11	0.81	1.5	0.68	2.1	1.2	1.7	0.84	<0.56	1.2	0.82
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	2.8	2.2	12.0	9.2	4.2	11.0	5.6	12.0	5.2	14.4	18.6	8.2	7.8	13.1	18.3	6.6	7.8	19.1	3.3
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	5.6	5.6	15.1	6.2	8.4	18.4	8.9	11.6	9.0	12.9	16.6	12.0	10.2	11.7	12.2	8.5	8.5	12.2	8.4
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	6.0	4.9	5.4	10.5	54.6	9.0	11.6	10.3	7.6	10.8	10.2	8.1	7.4	10.8	7.4	12.4	4.6	6.4	6.9
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	280	294	618	174	844	647	518	2110	311	345	529	459	859	407	506	262	897	399	446
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	3.9	2.9	14.0	9.3	7.0	13.2	6.0	10.4	7.4	11.4	13.2	8.6	6.2	10.6	12.3	6.5	7.1	15.0	4.7
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	0.55J	0.43J	1.7	1.5	<5.4	1.8	1.1	2.6	1.0J	1.9	0.89J	1.1	1.1	1.7	1.2	1.0J	3.4J	0.96J	0.57J
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	<0.50	<0.54	0.12J	<0.55	0.32J	0.093J	0.035J	0.12J	0.064J	<0.61	0.11J	0.11J	0.17J	0.10J	0.14J	0.075J	0.51J	0.17J	0.13J
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	0.29J	0.37J	1.5	<1.1	1.5J	0.91J	0.65J	0.46J	<1.1	0.46J	0.94J	0.75J	0.73J	0.40J	0.62J	0.37J	2.5J	0.49J	0.99
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	21.9	23.9	95.2	27.9	41.9	65.9	35.2	62.9	34.3	49.0	50.1	47.6	53.1	52.8	61.3	28.5	86.9	53.4	45.5
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.13	<0.17	1.2	0.19	<0.17	<0.14	<0.18	0.20	<0.15	<0.14	<0.16	<0.17	<0.11	<0.19	<0.17	<0.15	<0.13	<0.15	<0.17
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	0.25J	<1.6	<1.4	<3.1	<1.7	<2.3	0.28J	<1.5	<2	<1.2	<1.7	<2.6	<1.5	<1.6	<2.6	<0.77	<1.1	<2.2	0.64J
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	2.6J	2.2J	12.0	9.2	4.2J	11.0	5.3	12.0	5.2	14.4	18.6	8.2	7.8	13.1	18.3	6.6	7.8	19.1	2.7J

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.
Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)
IHSB = Inactive Hazardous Sites Branch
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ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							BUILDING EXTERIOR																		
Sample ID							SB-39	SB-40	SB-40	SB-40	SB-41	SB-41	SB-41	SB-42	SB-42	SB-42	SB-42	SB-43	SB-43	SB-43	SB-44	SB-44	SB-44	SB-45	SB-45
Depth (ft. bls)							34	0.5	17	20	0.5	15	23	0.5	14	21	24	0.5	9	27	0.5	18	40	0.5	19
Collection Date							7/28/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/2/2011	8/3/2011	8/3/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	BG	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.043	0.0070	0.026	0.0097	0.0023J	0.027	0.0032J	0.027	0.019	0.017	0.00082J	0.0040J	0.0012J	0.00036J	0.0025J	0.029	0.00083J	0.0019J	0.016
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<0.64	<0.54	<2.8	<2.7	<0.57	<2.3	<3.5	<0.60	<0.60	<0.61	<0.60	0.45J	<0.54	<0.50	<0.52	<0.62	<0.50	<0.50	0.36J
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	1.1	0.87	3.4	2.9	0.60	3.1	<3.5	2.1	1.5	1.7	1.1	<0.57	1.1	1.1	1.3	2.0	0.89	1.5	3.0
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	1.0	0.74	0.76	1.8	0.68	0.69	0.85	0.91	0.47	0.53	0.52	1.0	0.69	0.44	0.67	0.63	0.85	0.86	0.75
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	2.8	1.7	<0.56	0.42J	1.1	<0.45	<0.70	1.5	<0.12	<0.12	<0.12	4.2	3.5	<0.10	1.2	0.62	2.2	1.2	1.2
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	14.4	14.3	4.4	1.8J	8.1	4.6	0.76J	51.2	157	17.3	0.76	11.3	64.0	0.82	6.5	5.4	1.2	11.1	16.8
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	4.6	11.8	9.5	3.5	8.1	3.6	0.63J	11.4	12.6	9.5	6.3	11.2	36.6	0.51	12.1	9.5	21.7	14.3	9.2
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	16.5	6.3	16.3	12.6	5.8	14.7	21.2	27.5	252	20.3	4.6	7.2	59.2	9.0	6.4	9.0	62.3	9.9	15.1
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	936	436	364	1400	437	342	277	482	160	245	150	638	631	147	442	165	651	369	318
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	21.2	11.4	4.5	4.7	6.7	7.8	<3.5	12.3	13.3	5.6	0.77	11.3	71.4	0.22J	7.5	5.2	1.8	9.1	8.8
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	1.8	2.1	<5.6	2.7J	1.1J	<4.5	<7.0	1.3	0.81J	<1.2	0.87J	2.4	2.1	1.1	1.3	0.83J	1.8	1.9	2.3
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	0.22J	0.20J	0.31J	0.62J	0.19J	0.26J	0.28J	0.37J	0.13J	0.10J	0.10J	0.26J	0.24J	0.079J	0.16J	0.17J	0.14J	0.23J	0.22J
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	1.7	1.2	<5.6	1.9J	0.62J	<4.5	<7.0	0.34J	0.31J	<1.2	0.36J	1.7	1.1	0.35J	0.51J	0.58J	0.56J	0.38J	<1.2
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	70.3	67.8	21.2	119	54.5	24.2	2.2J	57.7	29.1	20.8	9.2	87.3	75.1	16.4	58.7	41.0	50.9	54.9	55.0
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	<0.15	0.17	0.19	0.23	0.20	0.18	0.27	0.75	89.5	2.1	2.0	0.16	0.25	0.54	0.18	23.3	0.12	0.23	0.49
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	0.85J	<2.2	0.46J	<2.4	0.48J	0.47J	<3.1	<2.7	0.66J	0.39J	<2.6	0.29J	<1.8	0.28J	0.31J	<2.5	0.44J	<2.4	<3.2
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	13.6	14.3	3.9J	1.8J	7.6	4.1J	0.76J	51.2	156	16.9	0.76J	11	64	0.54J	6.2	5.4	0.76J	11.1	16.8

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
BG = Background concentrations range

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.

ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.10: Metal Results for Soil Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							BUILDING EXTERIOR													
Sample ID							**SB-45**	**SB-46**	**SB-46**	**SB-46**	**SB-47**	**SB-47**	**SB-47**	**SB-48**	**SB-48**	**SB-48**	**SB-49**	**SB-49**	**SB-49**	**MW-12D**
Depth (ft. bls)							**34**	**0.5**	**19**	**25**	**0.5**	**20**	**34**	**0.5**	**7**	**17.5**	**0.5**	**10**	**24**	**20**
Collection Date							**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**8/3/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**	**7/26/2011**
Parameter	**Method**	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**	**BG**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**
Mercury	7471	mg/kg	2.0	3.1	1.0	0.0053 - 0.17	0.0013J	0.0058	0.014	0.089	0.0023J	0.13	0.0057	0.018	0.028	0.03	0.0078	0.0042J	0.0012J	0.017
Antimony	6010	mg/kg	6.2	8.2	0.9	ND	<2.3	<0.54	<0.51	<0.62	<0.49	<0.58	<0.53	<0.46	<0.41	<0.54	<2.1	<0.42	<1.8	<0.48
Arsenic	6010	mg/kg	0.39	1.6	5.8	0.035 - 2.2	1.9J	1.4	2.9	0.61J	0.56	1.3	1.7	1.8	2.1	<0.54	2.3	1.2	1.5J	2.6
Beryllium	6010	mg/kg	32	400	63	0.30 - 2.4	0.28J	0.73	0.60	1.8	0.6	0.86	0.73	0.29	0.71	0.73	0.93	0.46	0.48	0.85
Cadmium	6010	mg/kg	14	160	3.0	0.056 - 2.7	<0.46	0.76	0.74	4.9	0.49	3.3	3	0.58	1.5	1.7	<0.42	<0.085	<0.36	1.7
Chromium	6010	mg/kg	24,000	100,000	360,000	0.27 - 28.9	2.8	5.4	34.9	8.9	24.5	13.9	2.9	22.3	7.1	5.0	9.4	1.0	0.89J	34.1
Copper	6010	mg/kg	620	8,200	700	0.51 - 24.2	2.6	9.2	7.3	18.5	9	22.7	35.2	9.9	11.5	26.0	9.1	7.9	5.2	12.7
Lead	6010	mg/kg	400	800	270	3.3 - 74.0	5.5	6.4	9.5	20.3	6.3	17.1	89.4	9.0	11.7	5.3	9.5	5.1	3.5	12.2
Manganese	6010	mg/kg	360	4,600	65	60.0 - 1,170	321	439	253	1,110	335	710	645	322	418	414	509	159	290	475
Nickel	6010	mg/kg	300	4,000	130	0.19 - 21.9	<2.3	6.2	6.8	13.4	8	15.9	5.2	13.2	6.6	10.1	8.8	3.4	3.1	28.5
Selenium	6010	mg/kg	78	1,000	2.1	0.41 - 11.6	<2.3	1.2	0.60J	2	0.5J	1.3	<1.1	<0.92	1.6	1.9	2.3J	0.48J	<3.6	1.2
Silver	6010	mg/kg	78	1,000	3.4	0.035 - 9.5	0.30J	0.15J	0.15J	0.21J	0.096J	0.11J	0.14J	0.10J	0.048J	0.046J	<2.1	<0.42	<1.8	0.078J
Thallium	6010	mg/kg	0.16	2.0	0.28	0.28 - 5.0	<4.6	0.62J	<1.0	1.1J	<0.98	0.6J	1.1	<0.92	<0.82	<1.1	<4.2	<0.85	<3.6	<0.95
Zinc	6010	mg/kg	4,600	62,000	1,200	1.2 - 87.2	3.5J	44.6	34.8	101	45.5	81.6	90.1	21.0	32.3	68.2	35.8	14.1	31.2	52.2
Cyanide	SM 4500-C	mg/kg	320	4,000	14	NA	0.41	0.28	1.4	0.29	0.26	0.15	<0.16	7.9	0.13	<0.12	0.58	<0.12	<0.12	0.20
Chromium, Hexavalent	7196	mg/kg	0.29	5.6	3.8	0.11 - 2.7	0.95J	<2.8	<2.2	<3.3	0.29J	<2.0	0.61J	<1.7	<2.0	<1.8	0.27J	0.45J	0.13J	<1.3
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	0.22 - 28.9	1.8J	5.4	34.9	8.9	24.2	13.9	2.3J	22.3	7.1	5.0	9.1	0.55J	0.76J	34.1

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.
Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)
IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
BG = Background concentrations range
Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.
ft. bls=feet below land surface
mg/kg= milligrams per kilogram
SRG = Soil Remediation goals
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
< Less than the Report Limit - Indicates the compound was analyzed for, but not detected.
ND = Not detected on-site in background soil samples (SB-1 through SB-5).
NA = Not analyzed
*=For Samples SB-29 & SB-30, samples were collected on 7/27/11 but did not meet lab temperature requirements upon delivery. The results from repeat samples that were collected on 8/4/11 are listed.

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-50	SB-50	SB-50	SB-50	SB-51	SB-51	SB-51	SB-51	SB-52	SB-52	SB-52	SB-52
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	880	4,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00826	<0.00538	<0.00842	<0.00556	<0.00469	<0.00529	<0.0113	<0.0102	<0.00417	<0.00522	<0.00657	<0.00652

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-53	SB-53	SB-53	SB-53	SB-54	SB-54	SB-54	SB-54	SB-55	SB-55	SB-55	SB-55
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	880	4,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00391	<0.00428	<0.00556	NA	<0.00372	<0.0186	<0.00448	<0.00407	<0.00699	<0.00482	<0.00983	<0.00523

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-56	SB-56	SB-56	SB-56	SB-57	SB-57	SB-57	SB-57	SB-58	SB-58	SB-58	SB-58
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	880	4,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00612	<0.00627	<0.00543	<0.00711	<0.00698	<0.00777	<0.00614	<0.00412	<0.00558	<0.00966	<0.00528	<0.00390

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-59	SB-59	SB-59	SB-59	SB-60	SB-60	SB-60	SB-60	SB-61	SB-61	SB-61	SB-61
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	880	4,000	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00528	<0.00390	<0.00781	<0.00453	<0.00475	<0.00684	<0.00523	<0.00770	<0.00479	<0.0103	<0.00464	<0.00494

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

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µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-62	SB-62	SB-62	SB-62	SB-63	SB-63	SB-63	SB-63	SB-64	SB-64	SB-64	SB-64
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/6/2013	12/6/2013	12/6/2013	12/6/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	NA	NA	NA	NA	**3.6 J**	**6.9 J**	NA	NA	**3.3 J**	**4.9 J**	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
Trichloroethene	µg/kg	880	4,000	18	NA	NA	NA	NA	<4.4	<6.8	NA	NA	<4.4	<4.8	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	NA	NA	NA	NA	<8.8	<13.5	NA	NA	<8.9	<9.6	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00442	<0.00648	<0.00486	<0.00420	<0.00696	<0.00526	<0.00534	<0.00524	<0.00517	<0.00599	<0.00358	<0.00844

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-65	SB-65	SB-65	SB-65	SB-66	SB-66	SB-66	SB-66	SB-67	SB-67	SB-67	SB-67
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	**7.1 J**	**4.9 J**	NA	NA	**6.2 J**	**4.5 J**	NA	NA	**4.1 J**	**3.3 J**	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
Trichloroethene	µg/kg	880	4,000	18	<7.7	<5.0	NA	NA	<7.3	<4.9	NA	NA	<5.1	<5.3	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	<15.3	<10.1	NA	NA	<14.6	<9.9	NA	NA	<10.2	<10.6	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00663	<0.00493	<0.00550	<0.00433	<0.00610	<0.00726	<0.00790	<0.00478	<0.00557	<0.0110	<0.00594	<0.00573

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-68	SB-68	SB-68	SB-68	SB-69	SB-69	SB-69	SB-69	SB-70	SB-70	SB-70	SB-70
Depth (ft bgs)					1	5	10	15	1	5	10	15	1	5	10	15
Collection Date					12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/6/2013	12/6/2013	12/6/2013	12/6/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**												
VOCs by USEPA Method 8260																
Chloroform	µg/kg	290	1,500	340	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	<23.9	**4.3 J**	NA	NA	**6.9 J**	<19.2	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	880	4,000	18	<6.0	<6.6	NA	NA	<10.6	<4.8	NA	NA	NA	NA	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	<11.9	<13.3	NA	NA	<21.3	<9.6	NA	NA	NA	NA	NA	NA
VOCs by USEPA Method 8260C SIM																
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00923	<0.00994	<0.0143	<0.00596	<0.00795	<0.0100	<0.00743	<0.00714	<0.00431	<0.00620	<0.00773	<0.00522

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 4
Summary of Soil Analytical Results - 2013
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID					SB-71	SB-71	SB-71	SB-71
Depth (ft bgs)					1	5	10	15
Collection Date					12/6/2013	12/6/2013	12/6/2013	12/6/2013
Parameter	**Units**	**Unrestricted SRG[1]**	**Industrial SRG[1]**	**POG SRG[1]**				
VOCs by USEPA Method 8260								
Chloroform	µg/kg	290	1,500	340	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	3,300	17,000	30	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	430	2,200	2	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	48,000	220,000	45	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	32,000	400,000	360	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	30,000	140,000	510	NA	NA	NA	NA
Methylene Chloride	µg/kg	56,000	620,000	23	NA	NA	NA	NA
Tetrachloroethene	µg/kg	17,000	82,000	5	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	640,000	640,000	1,200	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	320	1,400	3.2	NA	NA	NA	NA
Trichloroethene	µg/kg	880	4,000	18	NA	NA	NA	NA
Vinyl chloride	µg/kg	60	1,700	0.19	NA	NA	NA	NA
VOCs by USEPA Method 8260C SIM								
1,4-Dioxane	mg/kg	4.9	17	0.012	<0.00478	<0.00512	<0.00703	<0.00959

Notes:

1 = Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, January 2014, adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

VOC = Volatile Organic Compound

µg/kg = micrograms per kilogram

mg/kg = miligrams per kilogram

NA = Not Analyzed

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

ft bgs = Feet below ground surface

Prepared By/Date: SS 02/21/14
Checked By/Date: MDF 07/09/14

Table 3.5 VOC Results for Sediment Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							Tributary to Boone Creek				Tributary to Winkler Creek			
Sample ID							SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8
Collection Date							8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	SSV	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Acetone	8260	µg/kg	12,000,000	100,000,000	24,000	--	691	349	305	239	534	1,460	199	190
2-Butanone (MEK)	8260	µg/kg	5,600,000	28,000,000	16,000	--	54J	18.5J	<97.8	<99.9	38.1J	77.1J	17.2J	<121
p-Isopropyltoluene	8260	µg/kg	--	--	680	--	<5.1	<5.4	<4.9	<5.0	<6.7	5.2J	<4.6	<6.0
Methylene Chloride	8260	µg/kg	11,000	53,000	23	--	12.7J	12.6J	18.5J	10.5J	19J	28.1J	10.6J	9.2J
Toluene	8260	µg/kg	820,000	820,000	5,500	--	<5.1	<5.4	<4.9	<5.0	<6.7	5.7J	<4.6	<6.0

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)

IHSB = Inactive Hazardous Sites Branch

SRG = Soil Remediation Goals

POG = Protection of Groundwater

SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

µg/kg= micrograms per kilogram

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011 or EPA Region IV SSV Table, November 2001

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.6: SVOC Results for Sediment Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							Tributary to Boone Creek				Tributary to Winkler Creek			
Sample ID							SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8
Collection Date							8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	SSV	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Benzo(a)anthracene	8270	µg/kg	150	2,100	180	330	<463	<444	<398	<391	<456	<566	99.4J	<469
Benzo(a)pyrene	8270	µg/kg	15	210	59	330	<463	<444	<398	<391	<456	<566	91.4J	<469
Benzo(b)fluoranthene	8270	µg/kg	150	2,100	600	*330	<463	<444	<398	<391	<456	<566	77J	<469
Benzo(k)fluoranthene	8270	µg/kg	1,500	21,000	5,900	*330	<463	<444	<398	<391	<456	<566	83.1J	<469
Chrysene	8270	µg/kg	15,000	210,000	18,000	330	<463	<444	<398	<391	<456	<566	119J	<469
Fluoranthene	8270	µg/kg	460,000	4,400,000	33,000	*330	<463	<444	<398	<391	<456	<566	299J	<469
Phenanthrene	8270	µg/kg	--	--	68,000	330	<463	<444	<398	<391	<456	<566	148J	<469
Pyrene	8270	µg/kg	340,000	3,400,000	22,000	330	<463	<444	<398	<391	<456	<566	186J	<469

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011, adapted from the June 2011 USEPA Regional Screening Tables.
Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)
IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.
µg/kg= micrograms per kilogram
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011
* SSV value provided for Low Molecular Weight PAHs

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.7: Metal Results for Sediment Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 680-04-9513

Area of Concern							Tributary to Boone Creek				Tributary to Winkler Creek			
Sample ID							SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8
Collection Date							8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011
Parameter	Method	Units	Unrestricted SRG[1]	Industrial SRG[1]	POG SRG[1]	SSV	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Mercury	7471	mg/kg	2.0	3.1	1	0.1	0.0065	0.0093	0.0062	0.004	0.0055	0.041	0.0075	0.0072
Antimony	6010	mg/kg	6.2	82	0.9	12	0.93	0.49J	0.35J	<0.57	1.1	1.8	0.51J	<0.68
Arsenic	6010	mg/kg	0.39	1.6	5.8	7.24	0.46J	1.4	1.8	1.3	1.4	1.6	0.96	2.0
Beryllium	6010	mg/kg	32	400	63	--	1.8	0.84	0.65	0.55	0.83	0.8	0.48	0.53
Cadmium	6010	mg/kg	14	160	3.0	1.0	8.9	1.3	0.82	0.25	2.0	1.5	0.22	<0.14
Chromium	6010	mg/kg	24,000	--	--	52	17.1	15.2	7.0	6.0	29.6	15.8	5.6	4.2
Copper	6010	mg/kg	620	8,200	700	18.7	12.5	8.3	6.5	4.5	16.2	6.0	5.6	4.5
Lead	6010	mg/kg	400	800	270	30.2	6.7	9.6	6.6	7.8	12.3	9.9	8.3	9.3
Manganese	6010	mg/kg	360	4,600	65	--	2,670	2,620	2,090	855	2,240	3,640	979	1,020
Nickel	6010	mg/kg	300	4,000	130	15.9	11.5	8.5	4.8	3.2	9.7	15.5	4.9	3.6
Selenium	6010	mg/kg	78	1,000	2.1	--	2.2	1.9	1.3	0.79J	1.9	1.7	0.86J	1.5
Silver	6010	mg/kg	78	1,000	3.4	2.0	0.52	0.31J	0.25J	0.17J	0.33J	0.52J	0.18	0.15J
Thallium	6010	mg/kg	0.16	2.0	0.28	--	0.54J	<1.0	<1.1	<1.1	<1.2	<1.1	<1.1	<1.4
Zinc	6010	mg/kg	4,600	62,000	1,200	124	96.8	74.2	55.2	40.6	139	103	42.1	37.9
Cyanide	SM 4500-C-E	mg/kg	320	4,000	14	--	<0.29	<0.37	<0.17	0.49	0.54	0.36	0.35	<0.26
Chromium, Trivalent	TCC	mg/kg	24,000	100,000	360,000	--	17.1	15.2	7.0	6.0	29.6	15.8	5.6	4.2J

1=Values based on Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (PSRG) Table, August 2011., adapted from the June 2011 USEPA Regional Screening Tables.
Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or estimated concentrations (J-values)
IHSB = Inactive Hazardous Sites Branch
SRG = Soil Remediation Goals
POG = Protection of Groundwater
SSV= Sediment Screening Value based on the EPA Region 4 Waste Management Division Sediment Screening Values for Hazardous Waste Sites, Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Website version last updated November 30, 2001: http://www.epa.gov/region4/waste/ots/ecolbul.html

Yellow highlighted values in cells indicate exceedance to Industrial SRG value.
Green highlighted values in cells indicate exceedance to Protection of Groundwater SRG value.
Purple highlighted values in cells indicate exceedance to Unrestricted SRG value.
Blue highlighted values in cells indicate excedence to SSV value.

mg/kg= millligrams per kilogram
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
-- =Contaminant listed, but no value listed on the IHSB PSRG Table, August 2011 or to EPA Region IV SSV Table, November 2001

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 7
Summary of Sediment Sampling Laboratory Analytical Results
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

Sample ID	Date	Acetone	MEK	Chloroform	1,1 - DCA	1,1 - DCE	1,2 - DCA	cis 1,2 - DCE	trans 1,2 - DCE	Methylene Chloride	MIBK	1,1,1 - TCA	1,1,2 - TCA	PCE	TCE	Toluene	Vinyl Chloride	1,4 - dioxane	Chromium VI
SW/SD-1	5/29/2013	**171**	**11.1J**	<5.1	<5.1	<5.1	<5.1	<5.1	**9.2**	<20.3	**4.0J**	<5.1	<5.1	<5.1	<5.1	<5.1	<10.1	--	--
SW/SD-2	5/29/2013	**213**	**24.5J**	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<17.5	**3.3J**	<4.4	<4.4	<4.4	<4.4	<4.4	<8.7	--	--
SW/SD-3	5/29/2013	**295**	**26.7J**	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	**13.4J**	<47.6	<4.8	<4.8	<4.8	<4.8	<4.8	<9.5	--	--
SW/SD-4	5/29/2013	**277**	**19.8J**	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	**11.8J**	<47.4	<4.7	<4.7	<4.7	<4.7	<4.7	<9.4	--	--
SW/SD-5	5/29/2013	**640**	**39.8J**	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	**19.7J**	<6.0	<6.0	<6.0	<6.0	<6.0	**2.5J**	<11.9	--	--
SW/SD-6	5/29/2013	**283**	**17.5J**	<4.3	<4.3	<4.3	<4.3	**1.6J**	<4.3	**2.8J**	<43.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.7	--	--
SW/SD-7	5/29/2013	**127**	**11.4J**	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<16.3	<40.9	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	--	--
SW/SD-8	5/29/2013	**117**	**6.7J**	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	**2.7J**	<41.9	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	--	--

Notes:

1. All Concentrations in micrograms per liter (µg/kg).
2. Bold values indicate detections above the laboratory RL.
3. -- Parameter not analyzed
4. < Indicates parameter not detected above the laboratory RL.
5. J indicates value estimated between reporting limit and method detection limit
6. Constituent abbreviations:

MEK = 2-Butanone
DCE = dichloroethene
DCA = dichloroethane
MIBK = 4-Methyl-2-pentanone
TCA = trichloroethane
PCE = tetrachloroethene
TCE = trichloroethene
Chromium VI = Hexavalent chromium

Prepared By/Date: MPF 08/04/13
Checked By/Date: MSS 09/19/13

Table 3.11: VOC Results for Surface Water Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							TRIBUTARY TO BOONE CREEK				TRIBUTARY TO WINKLER CREEK			
Sample ID							SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
Collection Date							8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011
Parameter	Method	Units	EPA Region IV SWSL		2B Standard - Freshwater Aquatic Life	2B Standard - Human Health	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
			Acute	Chronic										
1,1-Dichloroethane	8260	µg/L	--	--	20,000	170,000	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0
cis-1,2-Dichloroethene	8260	µg/L	--	--	--	4,900	<1.0	<1.0	<1.0	<1.0	<1.0	22.6	<1.0	<1.0
Methylene Chloride	8260	µg/L	19,300	1,930	--	590	2.0	2.5	1.6J	2.4	2.8	3.3	2J	2.5
Tetrachloroethene	8260	µg/L	528	84	--	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	0.65J	<1.0	<1.0
Trichloroethene	8260	µg/L	--	--	--	30	<1.0	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<1.0

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or laboratory reporting limit or estimated concentrations (J-values)
2B Standard = Surface Water Standard referenced in 15A NCAC 2B (DENR 2010), current as of 2/5/10
Yellow highlighted values indicate exceedence to 2B Standard value.
µg/L = micrograms per liter
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
-- = Not listed on the 2B Table, 2010

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.12: SVOC Results for Surface Water Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							TRIBUTARY TO BOONE CREEK				TRIBUTARY TO WINKLER CREEK			
Sample ID							SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
Collection Date							8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011
Parameter	Method	Units	EPA Region IV SWSL		2B Standard - Freshwater Aquatic Life	2B Standard - Human Health	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
			Acute	Chronic										
4,6-Dinitro-2-methylphenol	8270	µg/L	23	2.3	12	280	<20.0	<20.0	10.6J	<20.0	<20.0	<20.0	<20.0	<20.0

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or laboratory reporting limit or estimated concentrations (J-values)
2B Standard = Surface Water Standard referenced in 15A NCAC 2B (DENR 2010), current as of 2/5/10
Yellow highlighted values indicate exceedence to 2B Standard value.
µg/L = micrograms per liter
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
-- = Not listed on the 2B Table, 2010

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 3.13: Metal Results for Surface Water Samples
Robert Bosch Tool Corporation - Former Boone Division
Boone, North Carolina
AMEC Project: 6680-04-9513

Area of Concern							TRIBUTARY TO BOONE CREEK				TRIBUTARY TO WINKLER CREEK			
Sample ID							SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
Collection Date							8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/11/2011	8/11/2011	8/11/2011	8/11/2011
Parameter	Method	Units	EPA Region IV SWSL		2B Standard - Freshwater Aquatic Life	2B Standard - Human Health	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
			Acute	Chronic										
Arsenic	6010	µg/L	360	190	50	10	5.6	<5.0	3.6J	<5.0	<5.0	<5.0	<5.0	<5.0
Chromium	6010	µg/L	984	117	50	--	0.45J	1.2	0.99J	0.94	1.4J	1.2J	0.59J	<5.0
Copper	6010	µg/L	9.22	6.54	7	--	0.7J	0.34	0.56J	0.44J	1J	0.57J	0.53J	<5.0
Manganese	6010	µg/L	--	--	--	--	3,880	17.4	20	22.8	8,740	20.5	59.9	165
Selenium	6010	µg/L	20	5	5	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	4J
Silver	6010	µg/L	1.23	0.012	0.06	--	0.73J	0.31J	0.14J	<5.0	1.4J	0.14J	0.19J	<5.0
Zinc	6010	µg/L	65.04	58.91	50	--	4.1J	<10.0	<10.0	<10.0	191	<10.0	<10.0	4.1J
Cyanide	SM 4500-CN-E	µg/L	22	5.2	5	--	5.5	<5.0	6.2	<5.0	6.1	<5.0	<5.0	<5.0

Parameter list is limited to those compounds with detectable concentrations above the laboratory reporting limit or laboratory reporting limit or estimated concentrations (J-values)
2B Standard = Surface Water Standard referenced in 15A NCAC 2B (DENR 2010), current as of 2/5/10
Yellow highlighted values indicate exceedence of 2B Standard value.
µg/L = micrograms per liter
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
-- = Not listed on the 2B Table, 2010

Prepared By/Date: AJF 09/23/11
Checked By/Date: MPF 09/23/11

Table 6
Summary of Surface Water Sampling Laboratory Analytical Results
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001

		Chloroform	1,1 - DCA	1,1 - DCE	1,2 - DCA	cis 1,2 - DCE	trans 1,2 - DCE	Methylene Chloride	1,1,1 - TCA	1,1,2 - TCA	PCE	TCE	Vinyl Chloride	1,4 - dioxane	Chromium VI
2B Standard - Human Health		170	100	7,100	37	720	10,000	590	NS	16	3.3	30	2.4	80	NS
Sample ID	Date	Surface Water Results by Compound													
SW-1	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-2	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-3	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-4	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-5	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-6	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-7	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-8	4/16/2013	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
SW-1	5/29/2013	<1.0	<1.0	<1.0	<1.0	**0.41J**	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<0.02
SW-2	5/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<0.02
SW-3	5/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<0.02
SW-4	5/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<0.02
SW-5	5/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<0.02
SW-6	5/29/2013	<1.0	**0.88J**	<1.0	<1.0	**4.8**	<1.0	<2.0	<1.0	<1.0	<1.0	**0.55J**	<1.0	**2.9J**	<0.02
SW-7	5/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1J**	<0.02
SW-8	5/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1J**	<0.02

Notes:

1. All Concentrations in micrograms per liter (µg/L).
2. Bold values indicate detections above the laboratory RL.
3. -- Parameter not analyzed
4. < Indicates parameter not detected above the laboratory RL.
5. J indicates value estimated between reporting limit and method detection limit
6. Constituent abbreviations:
   - DCE = dichloroethene
   - DCA = dichloroethane
   - TCA = trichloroethane
   - PCE = tetrachloroethene
   - TCE = trichloroethene
   - Chromium VI = Hexavalent chromium
7. 2B Standard = Surface Water Standard referenced in 15A NCAC 2B.
8. NS = No standard.

Prepared By/Date: MPF 08/04/13
Checked By/Date: MSS 09/19/13

APPENDIX E

SOIL BORING LOGS AND ADDITIONAL INVESTIGATION RESULTS FOR CYANIDE, 1,4-DIOXANE, AND VOCs

Soil Boring Logs

AMEC Environment Infrastructure, Inc.
37 Villa Road, Suite 201
Greenville, South Carolina 29615
Ph. (864) 552-9624
Fx. (864) 297-7938

DRILLING LOG

Well No. SB-16a-(10+13)

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan Brown, Silty Clayey F-C Sand and Some Gravel, Dry
5					
					Tan Brown Sandy, Gravelly Clayey SILT. moist
10			X		Greenish gray
					SAA
			X		
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

AMEC Environment Infrastructure, Inc.
37 Villa Road, Suite 201
Greenville, South Carolina 29615
Ph. (864) 552-9624
Fx. (864) 297-7938

DRILLING LOG

Well No. SB-16b-10

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					tan brown, Silty clayey F-C Sand Some gravel.
5					Tan Brown Sandy ~~Sil~~ Clays Gravely silt, moist
					very small greenish gray lense
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-16C-10

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					tan brown, silty clayey sand Some gravel
5					tan brown, silty clayey sand
					greyish green, clay,
					Brown, slightly sandy clayey silt with gravel
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-16d-10

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:						
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE		CASING	SAMPLER	CORE BARREL
					TYPE		NA	NA
					SIZE ID		NA	NA
					HAMMER WT	NA	NA	NA
					HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					tan brown, silty clayey F-C sand some gravel
5					tan brown, sandy gravely clay silt. moist
					grayish green, clay,
10					tan brown, sandy gravely clay, moist.
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-16e

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan Brown, Silty Clayey F-C SAND, Some Gravel/Rock Fragments
5					SAME AS ABOVE
					Small area of staining
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-30a

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Concrete
					Gravel
		SB-30a-0.5'			Tan Brown, slightly sandy, Clayey Silt, Saturated
2					
3					- SAA
5					
					TD @ 3.5'
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-30b

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					See SB-30a
					TD @ 21
5					
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

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DRILLING LOG

Well No. SB-30c

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					See SB-30a
					TD @ 2'
5					
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-30d

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:				CASING	SAMPLER	CORE BARREL
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE	TYPE		NA	NA
					SIZE ID		NA	NA
					HAMMER WT	NA	NA	NA
					HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					See SB-30a
					TD @ 1.5' (Asphalt)
					Strong Pet. odor
5					
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-30e

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					See SB-30e
					TD @ 2'
5					
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-42a

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Grass
					Tan Brown, slightly Clayey, Silty F-C and Gravel SAND, Dry, Trace of Rock Fragments
5					
					Tan Brown, Silty, F-C SAND and Gravel (Rock Frag), Moist
10					
					SAA
					Grayish Green, Silty CLAY, moist Trace of Organic mater strong pet odor
15					
					Tan Brown, Silty F-C SAND and Gravel, moist
					Tan brown, Silty, F-C Sand and gravel (Rock Frag.) moist
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-426-14

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:						
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE		CASING	SAMPLER	CORE BARREL
					TYPE		NA	NA
					SIZE ID		NA	NA
					HAMMER WT	NA	NA	NA
					HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Greenish Gray Sandy, Gravely Silt and Clay, Moist, Strong Petrolium odor
5					
					Tan Brown slightly sandy Clayey, Silt, Moist, Trace of gravel
10					
15					
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY		SAMPLE ID	LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-42c-14

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan brown, silty clayey, F-C Sand + gravel
5					
					Tan brown, silty, F-C sand + gravel Rock Fragments, moist
10					
					Grey, Siltly clay, moist strong pet. odor
15					clay
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

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DRILLING LOG

Well No. SB-420-14

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:						
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE		CASING	SAMPLER	CORE BARREL
					TYPE		NA	NA
					SIZE ID		NA	NA
					HAMMER WT	NA	NA	NA
					HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Gravel
					tan brown, slightly clayey, silty F-C sand
					+ gravel, Dry, Trace of Rock fragments
5					
					Tan brown, Silty, F-C sand, Less gravely
10					
					Grayish green, silty clay, moist.
					Trace organics, Strong pet. odor
15					
					tan brown, Silty F-C sand. moist.
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-42e-14

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan brown, silty F-C Sand + gravel
5					tan brown, silty F-C sand + gravel Rock Fragments
10					Greyish green, silty clay, moist strong pet. odor.
15					Light tan clay
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

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DRILLING LOG

Well No. SB-44a - (18+21)

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					tan brown, Silty clayey, F-C sand Some gravel.
5					SAA
10					tan brown, clayey - F-C Sand Rock Fragments.
15					tan brown, clayey F-C Sand.
					greyish green clay
20					tan, clay, sandy.

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

WELL NO. SB-44a (18'-21')

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					tan brown, slightly clayey sandy silt, moist
					trace relict structure.
25					
30					
35					
40					
45					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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DRILLING LOG

Well No. SB-44B

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan Brown Slightly Clayey, Sandy Silt, trace of gravel, dry
5					Tan Brown, Slightly Clayey, Silty Gravely, SAND, Dry, several layers of gravel/rock Fragments
10					Brown, Silty, Gravely, Clayey SAND. moist
15					Dark Brown, Sandy Silty gravely clay moist to wet, wood and Large angular gravel.
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-44C

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:				CASING	SAMPLER	CORE BARREL
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE	TYPE		NA	NA
					SIZE ID		NA	NA
					HAMMER WT	NA	NA	NA
					HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan Brown, Slightly clayey, Silty Sand, Dry, trace of gravel
5					SAA, slightly more gravel.
10					Brown, clayey silty sand, Dry gravel.
15					Dark brown, sandy silty clay moist to wet
					Greyish green, clay
					Dark brown, sandy silty clay moist to wet.
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-44D

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER		DEPTH TO:				CASING	SAMPLER	CORE BARREL
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE	TYPE		NA	NA
					SIZE ID		NA	NA
					HAMMER WT	NA	NA	NA
					HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan Brown Slightly Clayey, SAND and Silt, Trace of gravel/Dry
5					SAA
10					Dark grave sandy Gravel/Rock Fragments Dry
					Brown Slightly Clayey silty, Sand Dry Layers of Gravel (some staining)
15					Gravel with organics some Black Stains
					Dark brown, Sandy silty gravely clay moist to wet, wood + Large angular gravel
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DRILLING LOG

Well No. SB-44c

PROJECT: RBTC -Boone, NC
CLIENT: RBTC
CONTRACTOR: Geologic
EQUIPMENT USED:

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone, NC
ELEVATION:
DATE START:
DATE FINISH:
DRILLER:
PREPARED BY:

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE

	CASING	SAMPLER	CORE BARREL
TYPE		NA	NA
SIZE ID		NA	NA
HAMMER WT	NA	NA	NA
HAMMER FALL	NA	NA	NA

DEPTH IN FEET	PID READING (PPM)	GEOTECH SAMPLE NUMBER	LAB SAMPLE NUMBER	USCS	FIELD CLASSIFICATION AND REMARKS
					Tan Brown, Slightly Clayey, Sandy SILT, trace of gravel, dry
5					SAA
10					Brown, Clayey, Silty Sandy, Gravel Moist
15					Dark Brown, Sandy Silty Gravelly Clay moist to wet, wood and large angular gravel
20					

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	HP	HYDROPUNCH
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

AMEC FOSTER WHEELER
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Ph. (864) 552-9624

TEST BORING REPORT

BORING NO. DS-1

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: JD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					greyish brown, Silty sand, Some gravel		
5							
					SAA		
10							
					SAA		
15							
					greyish brown, silty clay, trace of gravel.		1325
20							<0.2

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS1

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)	
					SAA			1335
25							.2	
					Brownish grey to grey silty clay			1340
30							ND	
35								
40								
45								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-2

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					greyish brown, silty sand, trace of gravel		
5							
					SAA		
10							
					greyish brown to grey, silty sand to silty clay.		
15							
					greyish brown to grey silty clay		
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-3

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					grayish brown to brown, silty sand. trace of gravel		
5							
					brownish grey, silty sand, trace of gravel		
10							
					SA A		
15							
					Brownish grey to grey, silty sand to silty clay.		1345
20							ND

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

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TEST BORING REPORT

BORING NO. DS-3

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					Light brown to gray brown silty clay, traces of gravel		1350 ND
25					gray brown, silty sand gravel.		1400 ND
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-4

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					~~Asphalt~~ grey to grey brown silty sand. Fine grained		
5					brownish grey to brown silty sand to silty clayey sand with trace of gravel		
10					Same as above		
15					Same as above		
20					Clayey silt		.5

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-4

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					Brown to grey Silty clay, traces of Sand		
25							.7
					Same as Above		
30							.2
35							
40							
45							

BLOWS/FT	DENSITY
0-4	VERY LOOSE
5-10	LOOSE
11-20	FIRM
21-30	VERY FIRM
31-50	DENSE
51+	VERY DENSE

BLOWS/FT	CONSISTANCY
0-2	VERY SOFT
3-4	SOFT
5-8	FIRM
9-15	STIFF
16-30	VERY STIFF
31-50	HARD
51+	VERY HARD

SAMPLE ID	
SS	SPLIT SPOON
GP	GEOPROBE
UD	UNDISTURBED TUBE
G	GRAB
C	COMPOSITE
B	BAG
NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-4a

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					brownish gray, silty sand, traces of gravel		
5							
					SAA		
10							
					greyish brown, silty sand to silty clay, trace of gravel		
15							
					greyish brown, silty clay, trace of gravel		
20							ND

R.55

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-4a
PAGE 2 OF 2

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)	
					brownish grey to grey, silty Clay.			1300
25							<0.2	? A
					SAA			1310
30							0.2	
35								
40								
45								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-5

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZSD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Brown grey, silty, fine sand		
5							
					SAA		
							<0.2
10							
					greyish brown to brown, silty clayey sand.		
15							[illegible]0.5
					SAA		
							1530
20							NO

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-5

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA		
25							ND
					SAA		
30							ND
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-6

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJU

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Dark grey to grey tan. Silty clayey Sand		
5							
					grey tan to Light grey clayey silty fine sand		
							1.5
10							
					SAA		
15							3+
					grey brown to grey, Silty sandy clay.		
20							0.5

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-6

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA		ND
25					SAA		ND
30							
35							
40							
45							

1500

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-7

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Dark grey to Light grey, silty Sand, trace of gravel.		
5							
					Light grey SAA		
							1700
10							ND
					Light grey SAA		
							1715
15							ND
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-10

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: LM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Concrete	~~ND~~ dn	ND	1410
					gravel			
						dn ~~ND~~		
					brown to brown red			1415
5					silty clay (f.11)			
					lt. brown to brown red			
					sandy silt w/			
					trace clay	dn ~~ND~~	ND	1410
10								
							2.0 ~~ND~~	1430
15								
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-12

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					greyish brown, silty fine Sand		
5							
					greyish brown, silty sandy clay		
							.75
10							
					SAA		
15							.2
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS - 13

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Concrete floor		ND	(0-2) 1240
					sandy silt w/ trace of clay some gravel			
5							ND	(3-5) 1245
					lt. brown to yellowish brown			
10							ND	(8-10) ~~1305~~ 1250
15							ND	(13-15) 1305
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-14

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					concrete floor			
					gravel fill		0	1310
5					sandy silt w/ clay brown to yellowish brown		0	1315
					gray staining		0	1320
10					sandy silty w/ clay lt. brown to yellowish brown			
15							0	1330
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-15

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Grey, Silty Sand, Gravel		
					Fuel odor		
5							
					SAA		
					Fuel odor		
10					Refusal at 10'		
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-16

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-19-15
DATE FINISH: 10-19-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Light grey to greyish brown, Silty clayey fine sand. Fuel Smell		
5							
					SAA		
10							
					greyish brown to light grey, Silty clayey fine sand		
15							
					SAA		
							ND
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

164S

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TEST BORING REPORT

BORING NO. DS-16

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)	
					SAA	200	ND	1650
25					Light grey to grey silty Sand		ND	1655
30								
35								
40								
45								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-17

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					greyish Brown, Silty sand. traces of gravel		
5					greyish Brown, silty clayey Sand. traces of gravel		
10					SAA		
15					Refusal at 14'. Moved east 2' Refusal again at 14' moved North 2'		
					SAA		NO
20							

1140

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-17

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					grey brown to light grey silty clayey sand.		
							ND 1145
25							
							ND 1150
30							
35							
40							
45							

BLOWS/FT	DENSITY
0-4	VERY LOOSE
5-10	LOOSE
11-20	FIRM
21-30	VERY FIRM
31-50	DENSE
51+	VERY DENSE

BLOWS/FT	CONSISTANCY
0-2	VERY SOFT
3-4	SOFT
5-8	FIRM
9-15	STIFF
16-30	VERY STIFF
31-50	HARD
51+	VERY HARD

SAMPLE ID	
SS	SPLIT SPOON
GP	GEOPROBE
UD	UNDISTURBED TUBE
G	GRAB
C	COMPOSITE
B	BAG
NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-18

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					greyish brown, silty sandy clay		
5							
					greyish brown, silty sandy clay to silty sand		
10					refusal at 9'. Moved east 2'. ZJD		
					refusal at 14'		
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-19

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		ND
					Sandy silt w/ clay		
							ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-20

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZSD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt			
					greyish brown, silty sand, trace of gravel		0.2?	12.00
5								
					SAA		ND	12 05
10								12:10
					greyish brown to grey silty fine sand.		NP	12:15
15								
					SAA		0.2	12:20
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-20

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					grey to brown, silty clayey sand		ND 1225
25							
					SAA		ND 1230
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-21

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt			1140
					Clay		ND	
							ND	1145
5								
10								
15								
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-22

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION: ft
DATE START: 10 20 15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt		ND	
					Sandy silt w/ trace clay (lt. brown)		1.2	
5								
					Sandy silt lt brown to yellowish brown		ND	1215
10								
					Saprolite		ND	1220
15								
20								1

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-23

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt		ND	1230
					Silty clay			
					Saprolite		ND	1220
5								
10								
15								
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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DS-24

TEST BORING REPORT

BORING NO. DS-24

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone.
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-21-15
DRILLER: Terraconn
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Concrete pad		ND 1205
5					refusal		ND 1215
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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37 Villa Road, Suite 201
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TEST BORING REPORT

BORING NO. DS-25

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Dark grey, silty sand with gravel		0.5
5							<0.2
					Dark grey to light grey, Gravel with some sand		[illegible]
							1.0
10							
					light grey gravel to Dark greyish green silty sandy clay		[illegible]
					Fuel odor		1.0
15							
					Light grey, silty sand.		ND
							[illegible]
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

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TEST BORING REPORT

BORING NO. DS-25
PAGE 2 OF 2

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA, traces of gravel		ND
25							
					SAA		ND
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-26

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: JJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt			
					Dark grey to brownish grey, silty sandy clay		0.5	1445
							0.5	1450
5								
					brownish grey, silty clayey sand			
							ND	1500
10								
					brownish grey to light grey green, silty clayey sand			
							ND	1505
15								
					Light grey, silty clayey sand.			
20							ND	1500

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-26

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA		
							1510
							ND
25					Light grey to light greyish brown, Silty clayey fine sand.		
							1515
							0.2
30							
35							
40							
45							

BLOWS/FT	DENSITY
0-4	VERY LOOSE
5-10	LOOSE
11-20	FIRM
21-30	VERY FIRM
31-50	DENSE
51+	VERY DENSE

BLOWS/FT	CONSISTANCY
0-2	VERY SOFT
3-4	SOFT
5-8	FIRM
9-15	STIFF
16-30	VERY STIFF
31-50	HARD
51+	VERY HARD

SAMPLE ID	
SS	SPLIT SPOON
GP	GEOPROBE
UD	UNDISTURBED TUBE
G	GRAB
C	COMPOSITE
B	BAG
NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-27

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLm

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Coarse silty/sandy clay		0.2	(?) 1240
							ND	1200
5								
					Banded saprolite			
							ND	1210
10								
								1215
15							ND	
20								1140

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-28

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZJO

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					asphalt			
					Light brown to tan, silty clayey sand		0.2	1625
							ND	1630
5								
					SAA		ND	
								1625
10								
					tan to light grey brown, Sandy silty clay		ND	
								1630
15								
					SAA		0.5	
								1630
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-28

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)	
					Light Brown to light tan, Silty sand		ND	1640
25					Light tan, silty sand		<0.2	1635
30								
35								
40								
45								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-29

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:						
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE		CASING	SAMPLER	CORE BARREL
					TYPE	NA		NA
N/A	N/A	N/A	N/A		SIZE ID	NA		NA
					HAMMER WT	XXX	NA	XXX
					HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Dark greyish green, Silty sandy Clay		0.5
							0.2
5					Fuel odor		
					Dark greyish green to light brown, Silty Sandy clay		2.0
10							
					light brown to grey brown, Silty Sandy clay to silty clayey sand.		0.5
15							
					grey to light grey, Silty clayey sand.		ND
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-29
PAGE 2 OF 2

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA		
							0.2
25							
					SAA		
							ND
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-30

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Coarse		ND
					clay		0.7
5							
					Saprolite		ND
10							
					clay lined bottom		ND
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-31

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
5								
								1130
10							0.5	
					saprolite - bouldery gray to brown			
							ND	1120
15								
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-32

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: ZJO

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Dark grey to greenish grey silty sandy clay.		0.5
					Fuel odor		ND
5							
					greenish grey to light brown silty sandy clay to silty sand.		
							2.5
10							
					light brown to greyish brown silty sand to silty sandy clay		
							0.5
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

AMEC FOSTER WHEELER
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TEST BORING REPORT

BORING NO. DS-33

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
5							
					Clay w/ organics gray		ND
10							1125
					Saprolite		0.2
							1125
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-34

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15
DATE FINISH: 10-20-15
DRILLER: Terracon
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
5								
10					gray w/ organics clay		ND	1120
15					Sandy silt w/ clay brown		0.5	1100
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

AMEC FOSTER WHEELER
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TEST BORING REPORT

BORING NO. DS-36 / 36A

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-20-15 / 10-21
DATE FINISH: 10-20-15 / 10-21
DRILLER: Terracon
PREPARED BY: ZJO

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					greyish brown, silty sandy clay		
5							
					SAA		
10							
					Light brown, silty clayey Sand.		
15							
					SAA		
							0.5
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY		SAMPLE ID
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

LOCATION SKETCH

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TEST BORING REPORT

BORING NO. DS-36 | 36A
PAGE 2 OF 2

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA		ND 1115
25							
					Light Brown to Brown pink, silty sandy		ND
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-37

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terracon
PREPARED BY: ZJP

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		
					Dark grey to greenish grey. Silty sandy clay		
					Strong fuel odor		
5							
					greenish grey silty sandy clay		
10							
					SAA.		
15							
					SAA		
							ND
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

1120

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TEST BORING REPORT

BORING NO. DS-37

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					greyish green to grey brown, silty clayey sand		ND 1130
25							
					grey brown, silty sandy clay.		ND 1135
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-38

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt.			
					Brown to light grey brown, silty clayey sand.		ND	1235
5							ND	1245
					light grey brown, silty sand clay			
10								
					SAA			
15								
					SAA			
20							0.5	1240

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-38
PAGE 2 OF 2

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)	
					light brown, clayey silt to silty clay.		ND	
25								1235
					light brown, silty clay		ND	
30					Saprolite			1235
35								
40								
45								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-39

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 2
LOCATION: Boone.
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terracon
PREPARED BY: ZJD

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC	
					Asphalt			
					dark grey to light grey brown, silty clayey Sand.		0.2	1300
5							ND	1255
					SAA			
10								
					SAA			
15								
					light grey to grey brown, silty clayey sand to silty clay.		ND	1230
20								

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. D5-39

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC (ppm)
					SAA		
							NO 1220
25							
					light brown, silty clayey Sand		
							NO 1215
30							
35							
40							
45							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID	
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE
21-30	VERY FIRM	9-15	STIFF	G	GRAB
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE
51+	VERY DENSE	31-50	HARD	B	BAG
		51+	VERY HARD	NR	NO RECOVERY

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TEST BORING REPORT

BORING NO. DS-40

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER:
PREPARED BY: LLM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		ND
					Dark gray to light gray silty, clayey sand		<0.2
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-41

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER		DEPTH TO:						
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE		CASING	SAMPLER	CORE BARREL
N/A	N/A	N/A	N/A		TYPE	NA		NA
					SIZE ID	NA		NA
					HAMMER WT	XXX	NA	XXX
					HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		0.2
					Dark gray to light gray silty, clayey Sand		ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS .42

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER		DEPTH TO:				CASING	SAMPLER	CORE BARREL
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE	TYPE	NA		NA
N/A	N/A	N/A	N/A		SIZE ID	NA		NA
					HAMMER WT	XXX	NA	XXX
					HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		ND
					Dark gray to light gray Silty, Clayey Sand		ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-43

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					Asphalt		ND
					Dark gray to light gray silty, clayey sand		ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-44

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER DATE	HRS AFT COMP	DEPTH TO: WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		1.8
					Dark gray to light gray - silty clayey Sand		0.5
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-45

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Turner
PREPARED BY: Lrn

GROUND WATER		DEPTH TO:				CASING	SAMPLER	CORE BARREL
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE	TYPE	NA		NA
N/A	N/A	N/A	N/A		SIZE ID	NA		NA
					HAMMER WT	XXX	NA	XXX
					HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		ND
					Dark to light gray Silty, Clayey Sand		
5							<0.2
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS.46

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		ND
					Dark to light gray silty clayey sand		ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-47

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		
					Dark to light gray silty, clayey sand		0.2
							ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

AMEC FOSTER WHEELER
37 Villa Road, Suite 201
Greenville, South Carolina 29615
Ph. (864) 552-9624

TEST BORING REPORT

BORING NO. DS.4B

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Terra
PREPARED BY: LM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		N.D
					Dark to light gray, silty clayey sand		ND
5							
10							
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-49

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION:
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Tema
PREPARED BY: LM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		ND
					Dark gray to light gray silty, clayey sand		0.2
5							
					SAA		ND
10							
					SAA		ND
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

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TEST BORING REPORT

BORING NO. DS-50

PROJECT: RBTC - BOONE, NC
CLIENT: RBTC
CONTRACTOR: TERRASONIC
EQUIPMENT USED: DPT

JOB NO. 6251121001
PAGE NO. 1 of 1
LOCATION: Boone
ELEVATION: ~~Boone~~
DATE START: 10-21-15
DATE FINISH: 10-21-15
DRILLER: Tina
PREPARED BY: LM

GROUND WATER		DEPTH TO:		
DATE	HRS AFT COMP	WATER	BOT. OF CASING	BOT. OF HOLE
N/A	N/A	N/A	N/A	

	CASING	SAMPLER	CORE BARREL
TYPE	NA		NA
SIZE ID	NA		NA
HAMMER WT	XXX	NA	XXX
HAMMER FALL	XXX	NA	XXX

DEPTH IN FEET	CASING BLOWS PER FT	SAMPLER BLOWS PER 6"	LAB SAMPLE ID	USCS	FIELD CLASSIFICATION AND REMARKS	FID (ppm)	COLORTEC
					asphalt		0.2
					Dark to light gray; silty clayey sand		0.5
5							
					SAA		0.5
10							
					SAA		ND
15							
20							

BLOWS/FT	DENSITY	BLOWS/FT	CONSISTANCY	SAMPLE ID		LOCATION SKETCH
0-4	VERY LOOSE	0-2	VERY SOFT	SS	SPLIT SPOON	
5-10	LOOSE	3-4	SOFT	GP	GEOPROBE	
11-20	FIRM	5-8	FIRM	UD	UNDISTURBED TUBE	
21-30	VERY FIRM	9-15	STIFF	G	GRAB	
31-50	DENSE	16-30	VERY STIFF	C	COMPOSITE	
51+	VERY DENSE	31-50	HARD	B	BAG	
		51+	VERY HARD	NR	NO RECOVERY	

Laboratory Reports of Analysis

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

August 10, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on August 03, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-L

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #:E-10177
Kentucky UST Certification #: 0042
Kentucky WW Certification #:98019
Louisiana Certification #: 04076
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2014-148
Texas Certification #: T104704355-15-9
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-10-00128

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92261498001	**SB-30A-0.5**	Solid	07/30/15 09:50	08/03/15 14:00
92261498002	**SB-42A-14**	Solid	07/30/15 12:50	08/03/15 14:00
92261498003	**SB-42A-14-XD**	Solid	07/30/15 12:50	08/03/15 14:00
92261498004	**SB-44A-18**	Solid	07/30/15 17:40	08/03/15 14:00
92261498005	**SB-16A-10**	Solid	07/30/15 12:00	08/03/15 14:00

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92261498001	**SB-30A-0.5**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261498002	**SB-42A-14**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261498003	**SB-42A-14-XD**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261498004	**SB-44A-18**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261498005	**SB-16A-10**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9014 Free Cyanide	CSA	1	PASI-I

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PROJECT NARRATIVE

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Total
Client: Amec Foster Wheeler, Greenville, SC
Date: August 10, 2015

General Information:
5 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/23970

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92261089001,92261211010

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1524943)
  - Cyanide

R1: RPD value was outside control limits.

- MSD (Lab ID: 1524943)
  - Cyanide
- MSD (Lab ID: 1524945)
  - Cyanide

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Method: **SM 4500-CN-M**
Description: 4500CNM Thiocyanate
Client: Amec Foster Wheeler, Greenville, SC
Date: August 10, 2015

General Information:
5 samples were analyzed for SM 4500-CN-M. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: WETA/20831

N2: The lab does not hold TNI accreditation for this parameter.

- SB-16A-10 (Lab ID: 92261498005)
  - Thiocyanate
- SB-30A-0.5 (Lab ID: 92261498001)
  - Thiocyanate
- SB-42A-14 (Lab ID: 92261498002)
  - Thiocyanate
- SB-42A-14-XD (Lab ID: 92261498003)
  - Thiocyanate
- SB-44A-18 (Lab ID: 92261498004)
  - Thiocyanate

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PROJECT NARRATIVE

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Method: **EPA 9014 Free Cyanide**
Description: 9014 Cyanide, Free
Client: Amec Foster Wheeler, Greenville, SC
Date: August 10, 2015

General Information:
5 samples were analyzed for EPA 9014 Free Cyanide. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9013A Free Cyanide EXT with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/17236

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92261498001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1350902)
  - Cyanide
- MSD (Lab ID: 1350903)
  - Cyanide

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Sample: SB-30A-0.5 **Lab ID: 92261498001** Collected: 07/30/15 09:50 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.4**	%	0.10	0.10	1		08/05/15 13:44		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**2.0**	mg/kg	0.41	0.21	1		08/05/15 13:14	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.2	1.2	1		08/09/15 07:45		M1,N2
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**0.90**	mg/kg	0.62	0.31	5	08/05/15 14:10	08/07/15 13:57	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Sample: SB-42A-14 **Lab ID: 92261498002** Collected: 07/30/15 12:50 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**26.4**	%	0.10	0.10	1		08/05/15 13:44		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**2.1**	mg/kg	0.29	0.15	1		08/05/15 13:15	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.3	1.3	1		08/09/15 07:45		N2
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**1.8J**	mg/kg	3.4	1.7	25	08/05/15 14:10	08/07/15 13:59	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Sample: SB-42A-14-XD **Lab ID: 92261498003** Collected: 07/30/15 12:50 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.0**	%	0.10	0.10	1		08/05/15 13:44		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**2.0**	mg/kg	0.32	0.16	1		08/05/15 13:16	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	6.4	6.4	5		08/09/15 07:45		N2
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	ND	mg/kg	3.2	1.6	25	08/05/15 14:10	08/07/15 14:02	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Sample: SB-44A-18 **Lab ID: 92261498004** Collected: 07/30/15 17:40 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.7**	%	0.10	0.10	1		08/05/15 13:45		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**43.1**	mg/kg	6.6	3.3	20		08/05/15 13:37	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	2.5	2.5	2		08/09/15 07:45		N2
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**1.2**	mg/kg	0.63	0.31	5	08/05/15 14:10	08/07/15 14:02	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Sample: SB-16A-10 **Lab ID: 92261498005** Collected: 07/30/15 12:00 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.0**	%	0.10	0.10	1		08/05/15 13:45		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**13.6**	mg/kg	1.5	0.73	5		08/05/15 13:38	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.2	1.2	1		08/09/15 07:45		N2
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	ND	mg/kg	3.0	1.5	25	08/05/15 14:10	08/07/15 14:04	57-12-5	

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

QC Batch: PMST/8209 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92261498001, 92261498002, 92261498003, 92261498004, 92261498005

SAMPLE DUPLICATE: 1526015

Parameter	Units	92261082001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	89.3	89.4	0	25	

SAMPLE DUPLICATE: 1526016

Parameter	Units	92261498005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.0	20.1	11	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

QC Batch: WETA/23970 — Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E — Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92261498001, 92261498002, 92261498003, 92261498004, 92261498005

METHOD BLANK: 1524940 — Matrix: Solid
Associated Lab Samples: 92261498001, 92261498002, 92261498003, 92261498004, 92261498005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.30	08/05/15 13:09	

LABORATORY CONTROL SAMPLE: 1524941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	2.4	82	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1524942 1524943

Parameter	Units	92261089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	ND	2.7	2.9	2.7	2.1	94	69	75-125	25	10	M1,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1524944 1524945

Parameter	Units	92261211010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	1.2	3.8	3.5	4.8	4.1	93	82	75-125	16	10	R1

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

QC Batch: WETA/20831 | Analysis Method: SM 4500-CN-M
QC Batch Method: SM 4500-CN-M | Analysis Description: 4500CNM Thiocyanate
Associated Lab Samples: 92261498001, 92261498002, 92261498003, 92261498004, 92261498005

METHOD BLANK: 933600 | Matrix: Water
Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thiocyanate	mg/kg	ND	0.99	08/09/15 07:45	N2

LABORATORY CONTROL SAMPLE: 933601

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thiocyanate	mg/kg	2.5	2.3	94	85-115	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 933602 933603

Parameter	Units	92261498001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thiocyanate	mg/kg	ND	3.1	3.1	2.8	2.8	74	74	85-115	0	20	M1,N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

QC Batch: WETA/17236 Analysis Method: EPA 9014 Free Cyanide
QC Batch Method: EPA 9013A Free Cyanide EXT Analysis Description: 9014 Free Cyanide
Associated Lab Samples: 92261498001, 92261498002, 92261498003, 92261498004, 92261498005

METHOD BLANK: 1350900 Matrix: Water
Associated Lab Samples: 92261498001, 92261498002, 92261498003, 92261498004, 92261498005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.50	08/07/15 13:54	

LABORATORY CONTROL SAMPLE: 1350901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	2	1.8	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1350902 1350903

Parameter	Units	92261498001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.90	2.48	2.48	2.3	2.3	57	57	90-110	0	20	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-I	Pace Analytical Services - Indianapolis
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251-12-1001.03.01
Pace Project No.: 92261498

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92261498001	**SB-30A-0.5**	ASTM D2974-87	PMST/8209		
92261498002	**SB-42A-14**	ASTM D2974-87	PMST/8209		
92261498003	**SB-42A-14-XD**	ASTM D2974-87	PMST/8209		
92261498004	**SB-44A-18**	ASTM D2974-87	PMST/8209		
92261498005	**SB-16A-10**	ASTM D2974-87	PMST/8209		
92261498001	**SB-30A-0.5**	SM 4500-CN-E	WETA/23970		
92261498002	**SB-42A-14**	SM 4500-CN-E	WETA/23970		
92261498003	**SB-42A-14-XD**	SM 4500-CN-E	WETA/23970		
92261498004	**SB-44A-18**	SM 4500-CN-E	WETA/23970		
92261498005	**SB-16A-10**	SM 4500-CN-E	WETA/23970		
92261498001	**SB-30A-0.5**	SM 4500-CN-M	WETA/20831		
92261498002	**SB-42A-14**	SM 4500-CN-M	WETA/20831		
92261498003	**SB-42A-14-XD**	SM 4500-CN-M	WETA/20831		
92261498004	**SB-44A-18**	SM 4500-CN-M	WETA/20831		
92261498005	**SB-16A-10**	SM 4500-CN-M	WETA/20831		
92261498001	**SB-30A-0.5**	EPA 9013A Free Cyanide EXT	WETA/17236	EPA 9014 Free Cyanide	WETA/17255
92261498002	**SB-42A-14**	EPA 9013A Free Cyanide EXT	WETA/17236	EPA 9014 Free Cyanide	WETA/17255
92261498003	**SB-42A-14-XD**	EPA 9013A Free Cyanide EXT	WETA/17236	EPA 9014 Free Cyanide	WETA/17255
92261498004	**SB-44A-18**	EPA 9013A Free Cyanide EXT	WETA/17236	EPA 9014 Free Cyanide	WETA/17255
92261498005	**SB-16A-10**	EPA 9013A Free Cyanide EXT	WETA/17236	EPA 9014 Free Cyanide	WETA/17255

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Pace Analytical www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 15, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.14	Issuing Authorities: Pace Asheville Quality Office

Client Name: Amec

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#3 -130265963 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 2.6 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KDB 8/3/15

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JJ Date: 8/3/15

SRF Review: JJ Date: 8/3/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92261498

92261498

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:
Company: AMEC
Address: 37 Villa Rd, Greenville, SC
Email To: Timothy.renn@amec.com
Phone: Fax:
Requested Due Date/TAT: 3 day

Section B Required Project Information:
Report To: C. Bruce
Copy To: T. Renn
Purchase Order No.:
Project Name: RBTC-Boone
Project Number: 6251-12-1001.03.01

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K. Godwin
Pace Profile #:

Page: 1 of 1
1903108

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER
Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Free Cyanide	Thiocyanate	Cyanide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SB-30a-0.5	SL	G			7/31/15	950		3	✓								X	X	X		92261498
2	SB-42a-14	↓	↓			7/31/15	1250		3	✓								X	X	X		Rush (3day)
3	SB-42a-14-XD					7/31/15	1250		3	✓								X	X	X		001
4	SB-44a-18					7/31/15	1740		3	✓								X	X	X		002
5	SB-16a-10	↓	↓			7/31/15	1200		3	✓								X	X	X		003
6																		X	X	X		004
7																						005
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS		
	[signature]	8/3/15	11:30	[signature]	8/3/15	11:30			
	[signature]	8.3.15	14:00	[signature]	8/3/15	14:00	2.6	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

August 25, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on August 03, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #:E-10177
Kentucky UST Certification #: 0042
Kentucky WW Certification #:98019
Louisiana Certification #: 04076
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2014-148
Texas Certification #: T104704355-15-9
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-10-00128

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92261516001	**RB-01**	Water	07/30/15 09:30	08/03/15 14:00
92261516010	**SB-42A-17**	Solid	07/30/15 13:00	08/03/15 14:00
92261516011	**SB-42D-14**	Solid	07/30/15 14:45	08/03/15 14:00
92261516012	**SB-42B-14**	Solid	07/30/15 15:40	08/03/15 14:00
92261516013	**SB-42C-14**	Solid	07/30/15 16:10	08/03/15 14:00
92261516014	**SB-42E-14**	Solid	07/30/15 16:40	08/03/15 14:00
92261516016	**SB-44A-21**	Solid	07/30/15 17:50	08/03/15 14:00
92261516024	**SB-16A-13**	Solid	07/31/15 12:05	08/03/15 14:00

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SAMPLE ANALYTE COUNT

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92261516001	**RB-01**	SM 4500-CN-E	AES2	1	PASI-A
92261516010	**SB-42A-17**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261516011	**SB-42D-14**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261516012	**SB-42B-14**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261516013	**SB-42C-14**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261516014	**SB-42E-14**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261516016	**SB-44A-21**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92261516024	**SB-16A-13**	ASTM D2974-87	SCM	1	PASI-I
		SM 4500-CN-E	AES2	1	PASI-A
		SM 4500-CN-M	DLH	1	PASI-PA
		EPA 9012B	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Total
Client: Amec Foster Wheeler, Greenville, SC
Date: August 25, 2015

General Information:
8 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/24091

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92261516010

R1: RPD value was outside control limits.

- MSD (Lab ID: 1531685)
  - Cyanide

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Method: **SM 4500-CN-M**
Description: 4500CNM Thiocyanate
Client: Amec Foster Wheeler, Greenville, SC
Date: August 25, 2015

General Information:
7 samples were analyzed for SM 4500-CN-M. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Method: **EPA 9012B**
Description: 9012B Cyanide, Total, SPLP
Client: Amec Foster Wheeler, Greenville, SC
Date: August 25, 2015

General Information:
7 samples were analyzed for EPA 9012B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Method: **EPA 9014 Free Cyanide**
Description: 9014 Cyanide, Free
Client: Amec Foster Wheeler, Greenville, SC
Date: August 25, 2015

General Information:
7 samples were analyzed for EPA 9014 Free Cyanide. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9013A Free Cyanide EXT with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/17335

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92261516010

M3: Matrix spike recovery was outside laboratory control limits due to matrix interferences.

- MS (Lab ID: 1355725)
  - Cyanide
- MSD (Lab ID: 1355726)
  - Cyanide

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: RB-01 **Lab ID: 92261516001** Collected: 07/30/15 09:30 Received: 08/03/15 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0080	0.0040	1		08/13/15 18:50	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-42A-17 **Lab ID: 92261516010** Collected: 07/30/15 13:00 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.3**	%	0.10	0.10	1		08/12/15 13:59		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.30J**	mg/kg	0.36	0.18	1		08/13/15 18:05	57-12-5	R1
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.2	1.2	1		08/18/15 10:30		M1,N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**0.0032**	mg/L			1	08/18/15 12:25	08/18/15 15:30	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**0.95**	mg/kg	0.58	0.29	5	08/12/15 15:15	08/14/15 11:32	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-42D-14 **Lab ID: 92261516011** Collected: 07/30/15 14:45 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**26.8**	%	0.10	0.10	1		08/12/15 13:59		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**4.3**	mg/kg	0.41	0.21	1		08/13/15 18:08	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.4	1.4	1		08/18/15 10:30		N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**0.20**	mg/L			1	08/18/15 12:25	08/18/15 15:33	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**6.1**	mg/kg	3.4	1.7	25	08/12/15 15:15	08/14/15 11:34	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-42B-14 **Lab ID: 92261516012** Collected: 07/30/15 15:40 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.3**	%	0.10	0.10	1		08/12/15 13:59		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.25J**	mg/kg	0.39	0.19	1		08/13/15 18:09	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.3	1.3	1		08/18/15 10:30		N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**0.034**	mg/L			1	08/18/15 12:25	08/18/15 15:33	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**0.94**	mg/kg	0.64	0.32	5	08/12/15 15:15	08/14/15 11:36	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-42C-14 **Lab ID: 92261516013** Collected: 07/30/15 16:10 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.1**	%	0.10	0.10	1		08/12/15 13:59		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**1.3**	mg/kg	0.29	0.14	1		08/13/15 18:10	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	2.4	2.4	2		08/18/15 10:30		N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**0.18**	mg/L			1	08/18/15 12:25	08/18/15 15:34	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**1.1**	mg/kg	0.60	0.30	5	08/12/15 15:15	08/14/15 11:37	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-42E-14 **Lab ID: 92261516014** Collected: 07/30/15 16:40 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.5**	%	0.10	0.10	1		08/12/15 14:00		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**53.3**	mg/kg	23.5	11.7	100		08/13/15 18:46	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.3	1.3	1		08/18/15 10:30		N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**3.3**	mg/L			100	08/18/15 12:25	08/18/15 15:41	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**3.2J**	mg/kg	3.2	1.6	25	08/12/15 15:15	08/14/15 11:39	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-44A-21 **Lab ID: 92261516016** Collected: 07/30/15 17:50 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.0**	%	0.10	0.10	1		08/12/15 14:00		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**12.7**	mg/kg	1.4	0.70	5		08/13/15 19:04	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.3	1.3	1		08/18/15 10:30		N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**0.24**	mg/L			1	08/18/15 12:25	08/18/15 15:36	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**1.1**	mg/kg	0.63	0.32	5	08/12/15 15:15	08/14/15 11:39	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Sample: SB-16A-13 **Lab ID: 92261516024** Collected: 07/31/15 12:05 Received: 08/03/15 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**26.8**	%	0.10	0.10	1		08/12/15 14:00		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/kg	0.26	0.13	1		08/13/15 18:14	57-12-5	
4500CNM Thiocyanate	Analytical Method: SM 4500-CN-M								
Thiocyanate	ND	mg/kg	1.4	1.4	1		08/18/15 10:30		N2
9012B Cyanide, Total, SPLP	Analytical Method: EPA 9012B Preparation Method: EPA 9012B Leachate Method/Date: EPA 1312; 08/14/15 02:00								
Cyanide	**0.00068**	mg/L			1	08/18/15 12:25	08/18/15 15:39	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide	**0.97**	mg/kg	0.68	0.34	5	08/12/15 15:15	08/14/15 11:44	57-12-5	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

QC Batch: PMST/10960 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

SAMPLE DUPLICATE: 1355586

Parameter	Units	50124905022 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.3	14.8	3	5	

SAMPLE DUPLICATE: 1355587

Parameter	Units	50125250009 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.7	6.9	2	5	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

QC Batch: WETA/24091 — Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E — Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

METHOD BLANK: 1531682 — Matrix: Solid
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.30	08/13/15 18:03	

LABORATORY CONTROL SAMPLE: 1531683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	3.5	117	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1531684 1531685

Parameter	Units	92261516010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.30J	3.7	3.3	4.4	3.8	111	105	75-125	15	10	R1

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

QC Batch: WETA/24116
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92261516001

METHOD BLANK: 1533815
Matrix: Water
Associated Lab Samples: 92261516001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0080	08/13/15 18:48	

LABORATORY CONTROL SAMPLE: 1533816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.11	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1533817 1533818

Parameter	Units	92261516001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	.1	.1	0.11	0.10	105	103	75-125	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

QC Batch: WETA/20941 Analysis Method: SM 4500-CN-M
QC Batch Method: SM 4500-CN-M Analysis Description: 4500CNM Thiocyanate
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

METHOD BLANK: 938610 Matrix: Water
Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thiocyanate	mg/kg	ND	1.0	08/18/15 10:30	N2

LABORATORY CONTROL SAMPLE: 938611

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thiocyanate	mg/kg	2.5	2.3	94	85-115	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 938612 938613

Parameter	Units	92261516010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thiocyanate	mg/kg	ND	4.61	4.61	2.6	2.6	57	57	85-115	0	20	M1,N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

QC Batch: WETA/24156 Analysis Method: EPA 9012B
QC Batch Method: EPA 9012B Analysis Description: EPA 9012B Cyanide, SPLP
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

METHOD BLANK: 1535867 Matrix: Water
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0080	08/18/15 15:28	

LABORATORY CONTROL SAMPLE: 1535868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.11	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1535869 1535870

Parameter	Units	92261516010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.0032	.12	.12	0.14	0.15	119	124		4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

QC Batch: WETA/17335 Analysis Method: EPA 9014 Free Cyanide
QC Batch Method: EPA 9013A Free Cyanide EXT Analysis Description: 9014 Free Cyanide
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

METHOD BLANK: 1355723 Matrix: Water
Associated Lab Samples: 92261516010, 92261516011, 92261516012, 92261516013, 92261516014, 92261516016, 92261516024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.10	08/14/15 11:29	

LABORATORY CONTROL SAMPLE: 1355724

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	2	2.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1355725 1355726

Parameter	Units	92261516010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.95	2.31	2.31	2.5	2.5	66	67	90-110	1	20	M3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-I	Pace Analytical Services - Indianapolis
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
N2	The lab does not hold TNI accreditation for this parameter.
R1	RPD value was outside control limits.

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC-BOONE 6251-12-1001.03.01
Pace Project No.: 92261516

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92261516010	**SB-42A-17**	ASTM D2974-87	PMST/10960		
92261516011	**SB-42D-14**	ASTM D2974-87	PMST/10960		
92261516012	**SB-42B-14**	ASTM D2974-87	PMST/10960		
92261516013	**SB-42C-14**	ASTM D2974-87	PMST/10960		
92261516014	**SB-42E-14**	ASTM D2974-87	PMST/10960		
92261516016	**SB-44A-21**	ASTM D2974-87	PMST/10960		
92261516024	**SB-16A-13**	ASTM D2974-87	PMST/10960		
92261516010	**SB-42A-17**	SM 4500-CN-E	WETA/24091		
92261516011	**SB-42D-14**	SM 4500-CN-E	WETA/24091		
92261516012	**SB-42B-14**	SM 4500-CN-E	WETA/24091		
92261516013	**SB-42C-14**	SM 4500-CN-E	WETA/24091		
92261516014	**SB-42E-14**	SM 4500-CN-E	WETA/24091		
92261516016	**SB-44A-21**	SM 4500-CN-E	WETA/24091		
92261516024	**SB-16A-13**	SM 4500-CN-E	WETA/24091		
92261516001	**RB-01**	SM 4500-CN-E	WETA/24116		
92261516010	**SB-42A-17**	SM 4500-CN-M	WETA/20941		
92261516011	**SB-42D-14**	SM 4500-CN-M	WETA/20941		
92261516012	**SB-42B-14**	SM 4500-CN-M	WETA/20941		
92261516013	**SB-42C-14**	SM 4500-CN-M	WETA/20941		
92261516014	**SB-42E-14**	SM 4500-CN-M	WETA/20941		
92261516016	**SB-44A-21**	SM 4500-CN-M	WETA/20941		
92261516024	**SB-16A-13**	SM 4500-CN-M	WETA/20941		
92261516010	**SB-42A-17**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516011	**SB-42D-14**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516012	**SB-42B-14**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516013	**SB-42C-14**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516014	**SB-42E-14**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516016	**SB-44A-21**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516024	**SB-16A-13**	EPA 9012B	WETA/24156	EPA 9012B	WETA/24159
92261516010	**SB-42A-17**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358
92261516011	**SB-42D-14**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358
92261516012	**SB-42B-14**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358
92261516013	**SB-42C-14**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358
92261516014	**SB-42E-14**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358
92261516016	**SB-44A-21**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358
92261516024	**SB-16A-13**	EPA 9013A Free Cyanide EXT	WETA/17335	EPA 9014 Free Cyanide	WETA/17358

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Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 15, 2015 Page 1 of 2*
	Document No.: F-ASV-CS-003-rev.14	Issuing Authorities: Pace Asheville Quality Office

Client Name: Amec

* Page 2 of 2 is for Internal Use Only

Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no **Seals intact:** ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun#3 -130265963 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

IR Gun #4 SN:140290365 Other:_____

Temp Correction Factor: Add / Subtract 0.0 C

Corrected Cooler Temp.: 2.0/4.3 C **Biological Tissue Is Frozen:** Yes No N/A

Date and Initials of person examining contents: KDB 8/3/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☑N/A	6.
Rush Turn Around Time Requested:	☐Yes ☐No ☑N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☐No ☑N/A	12.
-Includes date/time/ID/Analysis Matrix: Soil		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JG Date: 8/3/15

SRF Review: JG Date: 8/4/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Place label here

WO#: 92261516

92261516

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 3

1906093

Section A Required Client Information:

Company: AMEC
Address: 37 Villa Rd, Greenville, SC
Email To: Timothy.Ronn@AMEC.com
Phone: Fax:
Requested Due Date/TAT: Hold

Section B Required Project Information:

Report To: T. Ronn
Copy To: C. Brucz
Purchase Order No.:
Project Name: RBTC - Boone
Project Number: 6251-12-1001.03.01

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K Godwin
Pace Profile #:

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, ✓ OTHER

Site Location STATE: NC

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Total Cyanide	Free Cyanide	Thiocyanate	Cyanide SPLP Cyanide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92261516
1	RB-01	~~SL~~ W	G			7/30/15	930		2					X				X					001
2	SB-30a-0.5	SL					950		1	✓											X		002
3	SB-30a-03						955		4									X	X	X	X		003
4	SB-30b-0.5						1020		4									X	X	X	X		004
5	SB-30c-0.5						1030		4									X	X	X	X		005
6	SB-30d-0.5						1050		4									X	X	X	X		006
7	SB-30e-0.5						1110		4									X	X	X	X		007
8	SB-42a-14						1250		1												X		008
9	SB-42a-14-XD						1250		1												X		009
10	SB-42a-17						1300		4									X	X	X	X		010
11	SB-42d-14						1445		4									X	X	X	X		011
12	SB-42b-14						1540		4									X	X	X	X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature]	8/3/15	11:30	[signature]	8.3.15	11:30
	[signature] 8.3.15		14:00		8/3/15	14:00

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.9 / 4.3	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 3

1903110

Section A Required Client Information:
Company: AMEC
Address: 37 Villa Rd, Greenville, SC
Email To: Timothy.Renner@AMEC.com
Phone: / Fax:
Requested Due Date/TAT: Hold

Section B Required Project Information:
Report To: T. Renner
Copy To: C. Bruce
Purchase Order No.:
Project Name: RBTC-Boone
Project Number: 6251-12-1001.03.01

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K. Godwin
Pace Profile #:

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, OTHER
Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Free Cyanide	Thiocyanate	Cyanide	SPLP Cyanide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92261516
1	SB-42c-14	SL	G			7/30/15	1610		4	✓								X	X	X	X		013
2	SB-42e-14					7/30/15	1640		4									X	X	X	X		014
3	SB-44a-18					7/30/15	1740		1												X		015
4	SB-44a-21					7/30/15	1750		4									X	X	X	X		016
5	SB-44e-18					7/31/15	815		4									X	X	X	X		017
6	SB-44b-18					7/31/15	905		4									X	X	X	X		018
7	SB-44b-18-XD					7/31/15	905		4									X	X	X	X		019
8	SB-44d-18					7/31/15	930		4									X	X	X	X		020
9	SB-44c-18					7/31/15	945		4									X	X	X	X		021
10	SB-16c-10					7/31/15	1150		4									X	X	X	X		022
11	SB-16a-10					7/31/15	1200		1												X		023
12	SB-16a-13					7/31/15	1205		4									X	X	X	X		024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[illegible]	8/3/15	11:30	[illegible]	8.3.15	11:30	
	[illegible]	8.3.15	14:00	[illegible]	8/3/15	NUC 2.0/4.3	Y N Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 3

1903111

Section A Required Client Information:

Company: AMEC
Address: 37 Villa Rd
Email To: Timothy.Reece@AMEC.Com
Phone: / Fax:
Requested Due Date/TAT: Hold

Section B Required Project Information:

Report To: T. Reece
Copy To: C. Brucz
Purchase Order No.:
Project Name: RBTC-Boone
Project Number: 6251-12-1001.03.01

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: K Godwin
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Free Cyanide	Total Cyanide	Cyanide	SPLP Cyanide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92261516
1	SB-16d-10	SL	G			7/31/15	1210		1	✓								X	X	X	X		025
2	SB-16b-10	↓	↓			7/31/15	1215		1	↓								X	X	X	X		026
3	SB-16e-10	↓	↓			7/31/15	1410		↓	↓								X	X	X	X		027
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature]	8/3/15	11:30	[signature]	8.3.15	11:30
	[signature]	8.3.15	14:00	[signature]	8/3/15	14:00

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.0 / 4.3	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 26, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on October 20, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

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(704)875-9092

SAMPLE SUMMARY

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92272410001	**FB-01**	Water	10/19/15 12:00	10/20/15 09:30
92272410002	**TRIP BLANK 01**	Solid	10/19/15 11:00	10/20/15 09:30
92272410003	**DS-14 (0-2)**	Solid	10/19/15 13:10	10/20/15 09:30
92272410004	**DS-14 (3-5)**	Solid	10/19/15 13:15	10/20/15 09:30
92272410005	**DS-14 (8-10)**	Solid	10/19/15 13:20	10/20/15 09:30
92272410006	**DS-14 (13-15)**	Solid	10/19/15 13:30	10/20/15 09:30
92272410007	**DS-13 (0-2)**	Solid	10/19/15 12:40	10/20/15 09:30
92272410008	**DS-13 (3-5)**	Solid	10/19/15 12:45	10/20/15 09:30
92272410009	**DS-13 (8-10)**	Solid	10/19/15 12:50	10/20/15 09:30
92272410010	**DS-13 (13-15)**	Solid	10/19/15 13:00	10/20/15 09:30
92272410011	**DS-1 (18-20)**	Solid	10/19/15 13:25	10/20/15 09:30
92272410012	**DS-1 (23-25)**	Solid	10/19/15 13:35	10/20/15 09:30
92272410013	**DS-1 (28-30)**	Solid	10/19/15 13:40	10/20/15 09:30
92272410014	**DS-4A (18-20)**	Solid	10/19/15 12:55	10/20/15 09:30
92272410015	**DS-4A (23-25)**	Solid	10/19/15 13:00	10/20/15 09:30
92272410016	**DS-4A (28-30)**	Solid	10/19/15 13:10	10/20/15 09:30
92272410017	**DS-3 (18-20)**	Solid	10/19/15 13:45	10/20/15 09:30
92272410018	**DS-3 (23-25)**	Solid	10/19/15 13:50	10/20/15 09:30
92272410019	**DS-3 (28-30)**	Solid	10/19/15 14:00	10/20/15 09:30
92272410020	**TRIP BLANK 02**	Solid	10/19/15 14:15	10/20/15 09:30
92272410021	**DS-10 (0-2)**	Solid	10/19/15 14:10	10/20/15 09:30
92272410022	**DS-10 (3-5)**	Solid	10/19/15 14:15	10/20/15 09:30
92272410023	**DS-10 (8-10)**	Solid	10/19/15 14:10	10/20/15 09:30
92272410024	**DS-10 (13-15)**	Solid	10/19/15 14:30	10/20/15 09:30
92272410025	**DS-6 (23-25)**	Solid	10/19/15 15:00	10/20/15 09:30
92272410026	**DS-5 (18-20)**	Solid	10/19/15 15:30	10/20/15 09:30

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272410001	**FB-01**	EPA 8260	NB	63	PASI-C
92272410002	**TRIP BLANK 01**	EPA 8260	DLK	71	PASI-C
92272410003	**DS-14 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410004	**DS-14 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410005	**DS-14 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410006	**DS-14 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410007	**DS-13 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410008	**DS-13 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410009	**DS-13 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410010	**DS-13 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410011	**DS-1 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410012	**DS-1 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410013	**DS-1 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410014	**DS-4A (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410015	**DS-4A (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410016	**DS-4A (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410017	**DS-3 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410018	**DS-3 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410019	**DS-3 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410020	**TRIP BLANK 02**	EPA 8260	DLK	71	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272410021	**DS-10 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410022	**DS-10 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410023	**DS-10 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410024	**DS-10 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410025	**DS-6 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272410026	**DS-5 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/33954

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1590880)
  - Hexachloro-1,3-butadiene

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

General Information:
25 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/33902

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DS-10 (3-5) (Lab ID: 92272410022)
  - 1,2-Dichloroethane-d4 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/33889

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1586534)
  - 2-Hexanone

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/33888

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272410003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1587535)
  - 1,1,2,2-Tetrachloroethane
  - 2-Butanone (MEK)

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

QC Batch: MSV/33888

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272410003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Trichloroethene
- Vinyl acetate
- sec-Butylbenzene

QC Batch: MSV/33889

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272410006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1587446)
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - 4-Methyl-2-pentanone (MIBK)
  - Bromomethane
  - Diisopropyl ether
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - sec-Butylbenzene
  - trans-1,2-Dichloroethene

QC Batch: MSV/33902

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272410014

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1588709)
  - 1,2,3-Trichlorobenzene
  - 1,3,5-Trimethylbenzene
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - Bromomethane
  - Methylene Chloride
  - n-Butylbenzene
  - n-Propylbenzene
  - p-Isopropyltoluene
  - sec-Butylbenzene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

Analyte Comments:

QC Batch: MSV/33889

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.

- DUP (Lab ID: 1587445)
  - Toluene-d8 (S)

QC Batch: MSV/33902

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.

- DS-10 (3-5) (Lab ID: 92272410022)
  - Toluene-d8 (S)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: FB-01 **Lab ID: 92272410001** Collected: 10/19/15 12:00 Received: 10/20/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/23/15 22:12	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		10/23/15 22:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/23/15 22:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/23/15 22:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/23/15 22:12	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/23/15 22:12	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/23/15 22:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/23/15 22:12	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/23/15 22:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/23/15 22:12	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/23/15 22:12	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/23/15 22:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/23/15 22:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/23/15 22:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/23/15 22:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/23/15 22:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/23/15 22:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/23/15 22:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/23/15 22:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/23/15 22:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/23/15 22:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/23/15 22:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/23/15 22:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/23/15 22:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/23/15 22:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/23/15 22:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/23/15 22:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/23/15 22:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/23/15 22:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/23/15 22:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/23/15 22:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/23/15 22:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/23/15 22:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/23/15 22:12	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/23/15 22:12	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/23/15 22:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/23/15 22:12	87-68-3	L3
2-Hexanone	ND	ug/L	5.0	0.46	1		10/23/15 22:12	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/23/15 22:12	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		10/23/15 22:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/23/15 22:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		10/23/15 22:12	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		10/23/15 22:12	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		10/23/15 22:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/23/15 22:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/23/15 22:12	79-34-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: FB-01 **Lab ID: 92272410001** Collected: 10/19/15 12:00 Received: 10/20/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/23/15 22:12	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/23/15 22:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/23/15 22:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/23/15 22:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/23/15 22:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/23/15 22:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/23/15 22:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/23/15 22:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/23/15 22:12	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/23/15 22:12	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/23/15 22:12	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/23/15 22:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/23/15 22:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/23/15 22:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		10/23/15 22:12	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		10/23/15 22:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/23/15 22:12	2037-26-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: TRIP BLANK 01 **Lab ID: 92272410002** Collected: 10/19/15 11:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		10/20/15 18:50	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/20/15 18:50	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/20/15 18:50	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/20/15 18:50	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/20/15 18:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		10/20/15 18:50	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/20/15 18:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/20/15 18:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/20/15 18:50	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/20/15 18:50	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/20/15 18:50	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/20/15 18:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/20/15 18:50	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/20/15 18:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/20/15 18:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/20/15 18:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/20/15 18:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/20/15 18:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/20/15 18:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/20/15 18:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/20/15 18:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/20/15 18:50	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/20/15 18:50	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/20/15 18:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	99-87-6	
Methylene Chloride	**5.2J**	ug/kg	20.0	3.0	1		10/20/15 18:50	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: TRIP BLANK 01 **Lab ID: 92272410002** Collected: 10/19/15 11:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/20/15 18:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/20/15 18:50	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/20/15 18:50	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/20/15 18:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/20/15 18:50	127-18-4	
Toluene	**3.0J**	ug/kg	5.0	1.8	1		10/20/15 18:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/20/15 18:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/20/15 18:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/20/15 18:50	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/20/15 18:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/20/15 18:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/20/15 18:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/20/15 18:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/20/15 18:50	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/20/15 18:50	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/20/15 18:50	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/20/15 18:50	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/20/15 18:50	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/20/15 18:50	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/20/15 18:50	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/20/15 18:50	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/20/15 18:50	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (0-2) **Lab ID: 92272410003** Collected: 10/19/15 13:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**37.0J**	ug/kg	95.3	9.5	1		10/20/15 19:10	67-64-1	
Benzene	ND	ug/kg	4.8	1.5	1		10/20/15 19:10	71-43-2	
Bromobenzene	ND	ug/kg	4.8	1.9	1		10/20/15 19:10	108-86-1	
Bromochloromethane	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	74-97-5	
Bromodichloromethane	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	75-27-4	
Bromoform	ND	ug/kg	4.8	2.2	1		10/20/15 19:10	75-25-2	
Bromomethane	ND	ug/kg	9.5	2.4	1		10/20/15 19:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	95.3	2.8	1		10/20/15 19:10	78-93-3	M1
n-Butylbenzene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.8	1.5	1		10/20/15 19:10	135-98-8	M1
tert-Butylbenzene	ND	ug/kg	4.8	1.9	1		10/20/15 19:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.8	2.5	1		10/20/15 19:10	56-23-5	
Chlorobenzene	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	108-90-7	
Chloroethane	ND	ug/kg	9.5	2.3	1		10/20/15 19:10	75-00-3	
Chloroform	ND	ug/kg	4.8	1.5	1		10/20/15 19:10	67-66-3	
Chloromethane	ND	ug/kg	9.5	2.3	1		10/20/15 19:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.8	3.4	1		10/20/15 19:10	96-12-8	
Dibromochloromethane	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	106-93-4	
Dibromomethane	ND	ug/kg	4.8	2.4	1		10/20/15 19:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.8	1.9	1		10/20/15 19:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.5	3.4	1		10/20/15 19:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.8	1.4	1		10/20/15 19:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.8	2.1	1		10/20/15 19:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.8	1.3	1		10/20/15 19:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.8	1.4	1		10/20/15 19:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.8	1.4	1		10/20/15 19:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	143	114	1		10/20/15 19:10	123-91-1	
Ethylbenzene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.8	1.9	1		10/20/15 19:10	87-68-3	
2-Hexanone	ND	ug/kg	47.7	3.7	1		10/20/15 19:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	99-87-6	
Methylene Chloride	**5.2J**	ug/kg	19.1	2.9	1		10/20/15 19:10	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (0-2) **Lab ID: 92272410003** Collected: 10/19/15 13:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	47.7	3.5	1		10/20/15 19:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.8	1.4	1		10/20/15 19:10	1634-04-4	
Naphthalene	ND	ug/kg	4.8	1.1	1		10/20/15 19:10	91-20-3	
n-Propylbenzene	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	103-65-1	
Styrene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.8	2.0	1		10/20/15 19:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	79-34-5	M1
Tetrachloroethene	ND	ug/kg	4.8	1.6	1		10/20/15 19:10	127-18-4	
Toluene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.8	2.1	1		10/20/15 19:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.8	1.5	1		10/20/15 19:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.8	2.0	1		10/20/15 19:10	79-00-5	
Trichloroethene	ND	ug/kg	4.8	2.0	1		10/20/15 19:10	79-01-6	M1
Trichlorofluoromethane	ND	ug/kg	4.8	2.1	1		10/20/15 19:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.8	1.5	1		10/20/15 19:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.8	1.9	1		10/20/15 19:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.8	1.7	1		10/20/15 19:10	108-67-8	
Vinyl acetate	ND	ug/kg	47.7	8.4	1		10/20/15 19:10	108-05-4	M1
Vinyl chloride	ND	ug/kg	9.5	1.7	1		10/20/15 19:10	75-01-4	
Xylene (Total)	ND	ug/kg	9.5	3.4	1		10/20/15 19:10	1330-20-7	
m&p-Xylene	ND	ug/kg	9.5	3.4	1		10/20/15 19:10	179601-23-1	
o-Xylene	ND	ug/kg	4.8	1.8	1		10/20/15 19:10	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/20/15 19:10	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		10/20/15 19:10	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/20/15 19:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.0**	%	0.10	0.10	1		10/20/15 18:53		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (3-5) **Lab ID: 92272410004** Collected: 10/19/15 13:15 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.9J**	ug/kg	117	11.7	1		10/20/15 19:30	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		10/20/15 19:30	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.3	1		10/20/15 19:30	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		10/20/15 19:30	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		10/20/15 19:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		10/20/15 19:30	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		10/20/15 19:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.3	1		10/20/15 19:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		10/20/15 19:30	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		10/20/15 19:30	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		10/20/15 19:30	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		10/20/15 19:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		10/20/15 19:30	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		10/20/15 19:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		10/20/15 19:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		10/20/15 19:30	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		10/20/15 19:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		10/20/15 19:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.6	1		10/20/15 19:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/20/15 19:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/20/15 19:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	176	141	1		10/20/15 19:30	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.3	1		10/20/15 19:30	87-68-3	
2-Hexanone	ND	ug/kg	58.7	4.6	1		10/20/15 19:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	99-87-6	
Methylene Chloride	**6.9J**	ug/kg	23.5	3.5	1		10/20/15 19:30	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (3-5) **Lab ID: 92272410004** Collected: 10/19/15 13:15 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.7	4.3	1		10/20/15 19:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		10/20/15 19:30	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		10/20/15 19:30	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		10/20/15 19:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		10/20/15 19:30	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		10/20/15 19:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		10/20/15 19:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		10/20/15 19:30	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		10/20/15 19:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		10/20/15 19:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		10/20/15 19:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.3	1		10/20/15 19:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		10/20/15 19:30	108-67-8	
Vinyl acetate	ND	ug/kg	58.7	10.3	1		10/20/15 19:30	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		10/20/15 19:30	75-01-4	
Xylene (Total)	ND	ug/kg	11.7	4.2	1		10/20/15 19:30	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	4.2	1		10/20/15 19:30	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		10/20/15 19:30	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/20/15 19:30	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/20/15 19:30	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		10/20/15 19:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.5**	%	0.10	0.10	1		10/20/15 18:53		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (8-10) **Lab ID: 92272410005** Collected: 10/19/15 13:20 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**32.1J**	ug/kg	134	13.4	1		10/20/15 19:50	67-64-1	
Benzene	ND	ug/kg	6.7	2.1	1		10/20/15 19:50	71-43-2	
Bromobenzene	ND	ug/kg	6.7	2.7	1		10/20/15 19:50	108-86-1	
Bromochloromethane	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	74-97-5	
Bromodichloromethane	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	75-27-4	
Bromoform	ND	ug/kg	6.7	3.1	1		10/20/15 19:50	75-25-2	
Bromomethane	ND	ug/kg	13.4	3.4	1		10/20/15 19:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	134	3.9	1		10/20/15 19:50	78-93-3	
n-Butylbenzene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.7	2.1	1		10/20/15 19:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.7	2.7	1		10/20/15 19:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.7	3.5	1		10/20/15 19:50	56-23-5	
Chlorobenzene	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	108-90-7	
Chloroethane	ND	ug/kg	13.4	3.2	1		10/20/15 19:50	75-00-3	
Chloroform	ND	ug/kg	6.7	2.1	1		10/20/15 19:50	67-66-3	
Chloromethane	ND	ug/kg	13.4	3.2	1		10/20/15 19:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.7	4.8	1		10/20/15 19:50	96-12-8	
Dibromochloromethane	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	106-93-4	
Dibromomethane	ND	ug/kg	6.7	3.4	1		10/20/15 19:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.7	2.7	1		10/20/15 19:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.4	4.8	1		10/20/15 19:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.7	2.0	1		10/20/15 19:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.7	2.9	1		10/20/15 19:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.7	1.9	1		10/20/15 19:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.7	2.0	1		10/20/15 19:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.7	2.0	1		10/20/15 19:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	201	161	1		10/20/15 19:50	123-91-1	
Ethylbenzene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.7	2.7	1		10/20/15 19:50	87-68-3	
2-Hexanone	ND	ug/kg	67.0	5.2	1		10/20/15 19:50	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	99-87-6	
Methylene Chloride	**9.0J**	ug/kg	26.8	4.0	1		10/20/15 19:50	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (8-10) **Lab ID: 92272410005** Collected: 10/19/15 13:20 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	67.0	5.0	1		10/20/15 19:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.7	2.0	1		10/20/15 19:50	1634-04-4	
Naphthalene	ND	ug/kg	6.7	1.6	1		10/20/15 19:50	91-20-3	
n-Propylbenzene	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	103-65-1	
Styrene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.7	2.8	1		10/20/15 19:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	79-34-5	
Tetrachloroethene	ND	ug/kg	6.7	2.3	1		10/20/15 19:50	127-18-4	
Toluene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.7	2.9	1		10/20/15 19:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.7	2.1	1		10/20/15 19:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.7	2.8	1		10/20/15 19:50	79-00-5	
Trichloroethene	ND	ug/kg	6.7	2.8	1		10/20/15 19:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.7	2.9	1		10/20/15 19:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.7	2.1	1		10/20/15 19:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.7	2.7	1		10/20/15 19:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.7	2.4	1		10/20/15 19:50	108-67-8	
Vinyl acetate	ND	ug/kg	67.0	11.8	1		10/20/15 19:50	108-05-4	
Vinyl chloride	ND	ug/kg	13.4	2.4	1		10/20/15 19:50	75-01-4	
Xylene (Total)	ND	ug/kg	13.4	4.8	1		10/20/15 19:50	1330-20-7	
m&p-Xylene	ND	ug/kg	13.4	4.8	1		10/20/15 19:50	179601-23-1	
o-Xylene	ND	ug/kg	6.7	2.5	1		10/20/15 19:50	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/20/15 19:50	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		10/20/15 19:50	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-132		1		10/20/15 19:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.7**	%	0.10	0.10	1		10/20/15 18:53		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (13-15) **Lab ID: 92272410006** Collected: 10/19/15 13:30 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**36.2J**	ug/kg	129	12.9	1		10/20/15 20:10	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1		10/20/15 20:10	71-43-2	
Bromobenzene	ND	ug/kg	6.5	2.6	1		10/20/15 20:10	108-86-1	
Bromochloromethane	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1		10/20/15 20:10	75-25-2	
Bromomethane	ND	ug/kg	12.9	3.2	1		10/20/15 20:10	74-83-9	M1
2-Butanone (MEK)	ND	ug/kg	129	3.7	1		10/20/15 20:10	78-93-3	M1
n-Butylbenzene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.5	2.1	1		10/20/15 20:10	135-98-8	M1
tert-Butylbenzene	ND	ug/kg	6.5	2.6	1		10/20/15 20:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1		10/20/15 20:10	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	108-90-7	
Chloroethane	ND	ug/kg	12.9	3.1	1		10/20/15 20:10	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1		10/20/15 20:10	67-66-3	
Chloromethane	ND	ug/kg	12.9	3.1	1		10/20/15 20:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.6	1		10/20/15 20:10	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	106-93-4	
Dibromomethane	ND	ug/kg	6.5	3.2	1		10/20/15 20:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1		10/20/15 20:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.9	4.6	1		10/20/15 20:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	1.9	1		10/20/15 20:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.8	1		10/20/15 20:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1		10/20/15 20:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	156-60-5	M1
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.5	1.9	1		10/20/15 20:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	1.9	1		10/20/15 20:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	108-20-3	M1
1,4-Dioxane (p-Dioxane)	ND	ug/kg	194	155	1		10/20/15 20:10	123-91-1	M1
Ethylbenzene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.5	2.6	1		10/20/15 20:10	87-68-3	
2-Hexanone	ND	ug/kg	64.6	5.0	1		10/20/15 20:10	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	98-82-8	M1
p-Isopropyltoluene	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	99-87-6	
Methylene Chloride	**9.5J**	ug/kg	25.8	3.9	1		10/20/15 20:10	75-09-2	M1

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-14 (13-15) **Lab ID: 92272410006** Collected: 10/19/15 13:30 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.6	4.8	1		10/20/15 20:10	108-10-1	M1
Methyl-tert-butyl ether	ND	ug/kg	6.5	1.9	1		10/20/15 20:10	1634-04-4	
Naphthalene	ND	ug/kg	6.5	1.5	1		10/20/15 20:10	91-20-3	
n-Propylbenzene	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	103-65-1	
Styrene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.5	2.7	1		10/20/15 20:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	79-34-5	
Tetrachloroethene	ND	ug/kg	6.5	2.2	1		10/20/15 20:10	127-18-4	
Toluene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.8	1		10/20/15 20:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1		10/20/15 20:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1		10/20/15 20:10	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1		10/20/15 20:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.5	2.8	1		10/20/15 20:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.5	2.1	1		10/20/15 20:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.5	2.6	1		10/20/15 20:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.5	2.3	1		10/20/15 20:10	108-67-8	
Vinyl acetate	ND	ug/kg	64.6	11.4	1		10/20/15 20:10	108-05-4	
Vinyl chloride	ND	ug/kg	12.9	2.3	1		10/20/15 20:10	75-01-4	
Xylene (Total)	ND	ug/kg	12.9	4.6	1		10/20/15 20:10	1330-20-7	
m&p-Xylene	ND	ug/kg	12.9	4.6	1		10/20/15 20:10	179601-23-1	
o-Xylene	ND	ug/kg	6.5	2.5	1		10/20/15 20:10	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/20/15 20:10	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/20/15 20:10	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/20/15 20:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.0**	%	0.10	0.10	1		10/20/15 18:53		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (0-2) **Lab ID: 92272410007** Collected: 10/19/15 12:40 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**24.0J**	ug/kg	110	11.0	1		10/20/15 20:30	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		10/20/15 20:30	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/20/15 20:30	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/20/15 20:30	75-25-2	
Bromomethane	ND	ug/kg	11.0	2.7	1		10/20/15 20:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	3.2	1		10/20/15 20:30	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		10/20/15 20:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/20/15 20:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		10/20/15 20:30	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	108-90-7	
Chloroethane	ND	ug/kg	11.0	2.6	1		10/20/15 20:30	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		10/20/15 20:30	67-66-3	
Chloromethane	ND	ug/kg	11.0	2.6	1		10/20/15 20:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		10/20/15 20:30	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.7	1		10/20/15 20:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/20/15 20:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	4.0	1		10/20/15 20:30	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.6	1		10/20/15 20:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/20/15 20:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1.5	1		10/20/15 20:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/20/15 20:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/20/15 20:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	165	132	1		10/20/15 20:30	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/20/15 20:30	87-68-3	
2-Hexanone	ND	ug/kg	54.9	4.3	1		10/20/15 20:30	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	99-87-6	
Methylene Chloride	**7.4J**	ug/kg	21.9	3.3	1		10/20/15 20:30	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (0-2) **Lab ID: 92272410007** Collected: 10/19/15 12:40 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.9	4.1	1		10/20/15 20:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.6	1		10/20/15 20:30	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/20/15 20:30	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/20/15 20:30	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/20/15 20:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	79-34-5	
Tetrachloroethene	**4.7J**	ug/kg	5.5	1.9	1		10/20/15 20:30	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/20/15 20:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		10/20/15 20:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/20/15 20:30	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		10/20/15 20:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/20/15 20:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		10/20/15 20:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/20/15 20:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/20/15 20:30	108-67-8	
Vinyl acetate	ND	ug/kg	54.9	9.7	1		10/20/15 20:30	108-05-4	
Vinyl chloride	ND	ug/kg	11.0	2.0	1		10/20/15 20:30	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	4.0	1		10/20/15 20:30	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	4.0	1		10/20/15 20:30	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/20/15 20:30	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/20/15 20:30	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/20/15 20:30	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		10/20/15 20:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.8**	%	0.10	0.10	1		10/20/15 18:53		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (3-5) **Lab ID: 92272410008** Collected: 10/19/15 12:45 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**30.4J**	ug/kg	131	13.1	1		10/20/15 20:49	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		10/20/15 20:49	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		10/20/15 20:49	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		10/20/15 20:49	75-25-2	
Bromomethane	ND	ug/kg	13.1	3.3	1		10/20/15 20:49	74-83-9	
2-Butanone (MEK)	ND	ug/kg	131	3.8	1		10/20/15 20:49	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		10/20/15 20:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		10/20/15 20:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		10/20/15 20:49	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	108-90-7	
Chloroethane	ND	ug/kg	13.1	3.1	1		10/20/15 20:49	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		10/20/15 20:49	67-66-3	
Chloromethane	ND	ug/kg	13.1	3.1	1		10/20/15 20:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.7	1		10/20/15 20:49	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		10/20/15 20:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		10/20/15 20:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.1	4.7	1		10/20/15 20:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		10/20/15 20:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		10/20/15 20:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.8	1		10/20/15 20:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/20/15 20:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/20/15 20:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	197	157	1		10/20/15 20:49	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		10/20/15 20:49	87-68-3	
2-Hexanone	ND	ug/kg	65.6	5.1	1		10/20/15 20:49	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	99-87-6	
Methylene Chloride	**4.6J**	ug/kg	26.2	3.9	1		10/20/15 20:49	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (3-5) **Lab ID: 92272410008** Collected: 10/19/15 12:45 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.6	4.9	1		10/20/15 20:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		10/20/15 20:49	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		10/20/15 20:49	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		10/20/15 20:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		10/20/15 20:49	127-18-4	
Toluene	**2.5J**	ug/kg	6.6	2.4	1		10/20/15 20:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		10/20/15 20:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		10/20/15 20:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		10/20/15 20:49	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		10/20/15 20:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		10/20/15 20:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		10/20/15 20:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		10/20/15 20:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		10/20/15 20:49	108-67-8	
Vinyl acetate	ND	ug/kg	65.6	11.5	1		10/20/15 20:49	108-05-4	
Vinyl chloride	ND	ug/kg	13.1	2.4	1		10/20/15 20:49	75-01-4	
Xylene (Total)	ND	ug/kg	13.1	4.7	1		10/20/15 20:49	1330-20-7	
m&p-Xylene	ND	ug/kg	13.1	4.7	1		10/20/15 20:49	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		10/20/15 20:49	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/20/15 20:49	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/20/15 20:49	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		10/20/15 20:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.1**	%	0.10	0.10	1		10/20/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (8-10) **Lab ID: 92272410009** Collected: 10/19/15 12:50 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**38.0J**	ug/kg	117	11.7	1		10/20/15 21:09	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		10/20/15 21:09	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.3	1		10/20/15 21:09	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		10/20/15 21:09	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		10/20/15 21:09	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		10/20/15 21:09	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		10/20/15 21:09	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.3	1		10/20/15 21:09	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.0	1		10/20/15 21:09	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		10/20/15 21:09	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		10/20/15 21:09	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		10/20/15 21:09	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		10/20/15 21:09	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		10/20/15 21:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		10/20/15 21:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		10/20/15 21:09	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		10/20/15 21:09	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		10/20/15 21:09	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.6	1		10/20/15 21:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/20/15 21:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/20/15 21:09	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	176	141	1		10/20/15 21:09	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.3	1		10/20/15 21:09	87-68-3	
2-Hexanone	ND	ug/kg	58.6	4.6	1		10/20/15 21:09	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	99-87-6	
Methylene Chloride	**5.4J**	ug/kg	23.4	3.5	1		10/20/15 21:09	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (8-10) **Lab ID: 92272410009** Collected: 10/19/15 12:50 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.6	4.3	1		10/20/15 21:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		10/20/15 21:09	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		10/20/15 21:09	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		10/20/15 21:09	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		10/20/15 21:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	79-34-5	
Tetrachloroethene	**6.0**	ug/kg	5.9	2.0	1		10/20/15 21:09	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		10/20/15 21:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		10/20/15 21:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		10/20/15 21:09	79-00-5	
Trichloroethene	**2.9J**	ug/kg	5.9	2.5	1		10/20/15 21:09	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		10/20/15 21:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		10/20/15 21:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.3	1		10/20/15 21:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		10/20/15 21:09	108-67-8	
Vinyl acetate	ND	ug/kg	58.6	10.3	1		10/20/15 21:09	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		10/20/15 21:09	75-01-4	
Xylene (Total)	ND	ug/kg	11.7	4.2	1		10/20/15 21:09	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	4.2	1		10/20/15 21:09	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		10/20/15 21:09	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/20/15 21:09	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/20/15 21:09	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		1		10/20/15 21:09	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.0**	%	0.10	0.10	1		10/20/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (13-15) **Lab ID: 92272410010** Collected: 10/19/15 13:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**50.3J**	ug/kg	104	10.4	1		10/20/15 21:29	67-64-1	
Benzene	ND	ug/kg	5.2	1.7	1		10/20/15 21:29	71-43-2	
Bromobenzene	ND	ug/kg	5.2	2.1	1		10/20/15 21:29	108-86-1	
Bromochloromethane	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	74-97-5	
Bromodichloromethane	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	75-27-4	
Bromoform	ND	ug/kg	5.2	2.4	1		10/20/15 21:29	75-25-2	
Bromomethane	ND	ug/kg	10.4	2.6	1		10/20/15 21:29	74-83-9	
2-Butanone (MEK)	ND	ug/kg	104	3.0	1		10/20/15 21:29	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1.7	1		10/20/15 21:29	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	2.1	1		10/20/15 21:29	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.2	2.7	1		10/20/15 21:29	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	108-90-7	
Chloroethane	ND	ug/kg	10.4	2.5	1		10/20/15 21:29	75-00-3	
Chloroform	ND	ug/kg	5.2	1.7	1		10/20/15 21:29	67-66-3	
Chloromethane	ND	ug/kg	10.4	2.5	1		10/20/15 21:29	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	3.8	1		10/20/15 21:29	96-12-8	
Dibromochloromethane	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	106-93-4	
Dibromomethane	ND	ug/kg	5.2	2.6	1		10/20/15 21:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	2.1	1		10/20/15 21:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.4	3.8	1		10/20/15 21:29	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.2	1.6	1		10/20/15 21:29	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	2.3	1		10/20/15 21:29	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1.5	1		10/20/15 21:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.2	1.6	1		10/20/15 21:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1.6	1		10/20/15 21:29	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	156	125	1		10/20/15 21:29	123-91-1	
Ethylbenzene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	2.1	1		10/20/15 21:29	87-68-3	
2-Hexanone	ND	ug/kg	52.1	4.1	1		10/20/15 21:29	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	99-87-6	
Methylene Chloride	**7.5J**	ug/kg	20.9	3.1	1		10/20/15 21:29	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-13 (13-15) **Lab ID: 92272410010** Collected: 10/19/15 13:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.1	3.9	1		10/20/15 21:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1.6	1		10/20/15 21:29	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1.3	1		10/20/15 21:29	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	103-65-1	
Styrene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	2.2	1		10/20/15 21:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	79-34-5	
Tetrachloroethene	ND	ug/kg	5.2	1.8	1		10/20/15 21:29	127-18-4	
Toluene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	2.3	1		10/20/15 21:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	1.7	1		10/20/15 21:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	2.2	1		10/20/15 21:29	79-00-5	
Trichloroethene	ND	ug/kg	5.2	2.2	1		10/20/15 21:29	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.2	2.3	1		10/20/15 21:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.2	1.7	1		10/20/15 21:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	2.1	1		10/20/15 21:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1.9	1		10/20/15 21:29	108-67-8	
Vinyl acetate	ND	ug/kg	52.1	9.2	1		10/20/15 21:29	108-05-4	
Vinyl chloride	ND	ug/kg	10.4	1.9	1		10/20/15 21:29	75-01-4	
Xylene (Total)	ND	ug/kg	10.4	3.8	1		10/20/15 21:29	1330-20-7	
m&p-Xylene	ND	ug/kg	10.4	3.8	1		10/20/15 21:29	179601-23-1	
o-Xylene	ND	ug/kg	5.2	2.0	1		10/20/15 21:29	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/20/15 21:29	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/20/15 21:29	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/20/15 21:29	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.10	0.10	1		10/20/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-1 (18-20) **Lab ID: 92272410011** Collected: 10/19/15 13:25 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**11.7J**	ug/kg	103	10.3	1		10/20/15 21:49	67-64-1	
Benzene	ND	ug/kg	5.1	1.6	1		10/20/15 21:49	71-43-2	
Bromobenzene	ND	ug/kg	5.1	2.1	1		10/20/15 21:49	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	75-27-4	
Bromoform	ND	ug/kg	5.1	2.4	1		10/20/15 21:49	75-25-2	
Bromomethane	ND	ug/kg	10.3	2.6	1		10/20/15 21:49	74-83-9	
2-Butanone (MEK)	ND	ug/kg	103	3.0	1		10/20/15 21:49	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1.6	1		10/20/15 21:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	2.1	1		10/20/15 21:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	2.7	1		10/20/15 21:49	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	108-90-7	
Chloroethane	ND	ug/kg	10.3	2.5	1		10/20/15 21:49	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		10/20/15 21:49	67-66-3	
Chloromethane	ND	ug/kg	10.3	2.5	1		10/20/15 21:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.7	1		10/20/15 21:49	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	106-93-4	
Dibromomethane	ND	ug/kg	5.1	2.6	1		10/20/15 21:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.1	1		10/20/15 21:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.3	3.7	1		10/20/15 21:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.1	1.5	1		10/20/15 21:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.3	1		10/20/15 21:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.1	1.4	1		10/20/15 21:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1.5	1		10/20/15 21:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		10/20/15 21:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	154	123	1		10/20/15 21:49	123-91-1	
Ethylbenzene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	2.1	1		10/20/15 21:49	87-68-3	
2-Hexanone	ND	ug/kg	51.4	4.0	1		10/20/15 21:49	591-78-6	L3
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	99-87-6	
Methylene Chloride	**7.2J**	ug/kg	20.5	3.1	1		10/20/15 21:49	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-1 (18-20) **Lab ID: 92272410011** Collected: 10/19/15 13:25 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.4	3.8	1		10/20/15 21:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		10/20/15 21:49	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1.2	1		10/20/15 21:49	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1.7	1		10/20/15 21:49	103-65-1	
Styrene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	2.2	1		10/20/15 21:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	79-34-5	
Tetrachloroethene	**11.6**	ug/kg	5.1	1.7	1		10/20/15 21:49	127-18-4	
Toluene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.3	1		10/20/15 21:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		10/20/15 21:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.2	1		10/20/15 21:49	79-00-5	
Trichloroethene	ND	ug/kg	5.1	2.2	1		10/20/15 21:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.3	1		10/20/15 21:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1.6	1		10/20/15 21:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	2.1	1		10/20/15 21:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1.8	1		10/20/15 21:49	108-67-8	
Vinyl acetate	ND	ug/kg	51.4	9.0	1		10/20/15 21:49	108-05-4	
Vinyl chloride	ND	ug/kg	10.3	1.8	1		10/20/15 21:49	75-01-4	
Xylene (Total)	ND	ug/kg	10.3	3.7	1		10/20/15 21:49	1330-20-7	
m&p-Xylene	ND	ug/kg	10.3	3.7	1		10/20/15 21:49	179601-23-1	
o-Xylene	ND	ug/kg	5.1	2.0	1		10/20/15 21:49	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/20/15 21:49	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/20/15 21:49	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		10/20/15 21:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		10/20/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-1 (23-25) **Lab ID: 92272410012** Collected: 10/19/15 13:35 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**55.5J**	ug/kg	108	10.8	1		10/21/15 16:22	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/21/15 16:22	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 16:22	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/21/15 16:22	75-25-2	
Bromomethane	ND	ug/kg	10.8	2.7	1		10/21/15 16:22	74-83-9	
2-Butanone (MEK)	**11.8J**	ug/kg	108	3.1	1		10/21/15 16:22	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/21/15 16:22	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 16:22	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/21/15 16:22	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	108-90-7	
Chloroethane	ND	ug/kg	10.8	2.6	1		10/21/15 16:22	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/21/15 16:22	67-66-3	
Chloromethane	ND	ug/kg	10.8	2.6	1		10/21/15 16:22	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/21/15 16:22	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/21/15 16:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 16:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.8	3.9	1		10/21/15 16:22	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/21/15 16:22	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/21/15 16:22	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	75-35-4	
cis-1,2-Dichloroethene	**3.7J**	ug/kg	5.4	1.5	1		10/21/15 16:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 16:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 16:22	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	162	130	1		10/21/15 16:22	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/21/15 16:22	87-68-3	
2-Hexanone	ND	ug/kg	54.0	4.2	1		10/21/15 16:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	99-87-6	
Methylene Chloride	**5.8J**	ug/kg	21.6	3.2	1		10/21/15 16:22	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-1 (23-25) **Lab ID: 92272410012** Collected: 10/19/15 13:35 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.0	4.0	1		10/21/15 16:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/21/15 16:22	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/21/15 16:22	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/21/15 16:22	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 16:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	79-34-5	
Tetrachloroethene	**45.7**	ug/kg	5.4	1.8	1		10/21/15 16:22	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/21/15 16:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/21/15 16:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 16:22	79-00-5	
Trichloroethene	**9.3**	ug/kg	5.4	2.3	1		10/21/15 16:22	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/21/15 16:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/21/15 16:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 16:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 16:22	108-67-8	
Vinyl acetate	ND	ug/kg	54.0	9.5	1		10/21/15 16:22	108-05-4	
Vinyl chloride	ND	ug/kg	10.8	1.9	1		10/21/15 16:22	75-01-4	
Xylene (Total)	ND	ug/kg	10.8	3.9	1		10/21/15 16:22	1330-20-7	
m&p-Xylene	ND	ug/kg	10.8	3.9	1		10/21/15 16:22	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.1	1		10/21/15 16:22	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/21/15 16:22	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/21/15 16:22	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/21/15 16:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.7**	%	0.10	0.10	1		10/20/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-1 (28-30) **Lab ID: 92272410013** Collected: 10/19/15 13:40 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**19.6J**	ug/kg	117	11.7	1		10/21/15 16:42	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		10/21/15 16:42	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.3	1		10/21/15 16:42	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		10/21/15 16:42	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		10/21/15 16:42	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		10/21/15 16:42	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		10/21/15 16:42	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.3	1		10/21/15 16:42	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.0	1		10/21/15 16:42	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		10/21/15 16:42	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		10/21/15 16:42	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		10/21/15 16:42	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		10/21/15 16:42	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		10/21/15 16:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		10/21/15 16:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		10/21/15 16:42	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		10/21/15 16:42	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		10/21/15 16:42	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.6	1		10/21/15 16:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/21/15 16:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/21/15 16:42	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	176	141	1		10/21/15 16:42	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.3	1		10/21/15 16:42	87-68-3	
2-Hexanone	ND	ug/kg	58.6	4.6	1		10/21/15 16:42	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	99-87-6	
Methylene Chloride	**8.0J**	ug/kg	23.5	3.5	1		10/21/15 16:42	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-1 (28-30) **Lab ID: 92272410013** Collected: 10/19/15 13:40 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.6	4.3	1		10/21/15 16:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		10/21/15 16:42	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		10/21/15 16:42	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		10/21/15 16:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		10/21/15 16:42	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		10/21/15 16:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		10/21/15 16:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		10/21/15 16:42	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		10/21/15 16:42	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		10/21/15 16:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		10/21/15 16:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.3	1		10/21/15 16:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		10/21/15 16:42	108-67-8	
Vinyl acetate	ND	ug/kg	58.6	10.3	1		10/21/15 16:42	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		10/21/15 16:42	75-01-4	
Xylene (Total)	ND	ug/kg	11.7	4.2	1		10/21/15 16:42	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	4.2	1		10/21/15 16:42	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		10/21/15 16:42	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/21/15 16:42	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/21/15 16:42	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/21/15 16:42	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		10/20/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-4A (18-20) **Lab ID: 92272410014** Collected: 10/19/15 12:55 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**32.1J**	ug/kg	108	10.8	1		10/21/15 17:01	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/21/15 17:01	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 17:01	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/21/15 17:01	75-25-2	
Bromomethane	ND	ug/kg	10.8	2.7	1		10/21/15 17:01	74-83-9	M1
2-Butanone (MEK)	ND	ug/kg	108	3.1	1		10/21/15 17:01	78-93-3	M1
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	104-51-8	M1
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/21/15 17:01	135-98-8	M1
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 17:01	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/21/15 17:01	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	108-90-7	
Chloroethane	ND	ug/kg	10.8	2.6	1		10/21/15 17:01	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/21/15 17:01	67-66-3	
Chloromethane	ND	ug/kg	10.8	2.6	1		10/21/15 17:01	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/21/15 17:01	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/21/15 17:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 17:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.8	3.9	1		10/21/15 17:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/21/15 17:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/21/15 17:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/21/15 17:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 17:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 17:01	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	161	129	1		10/21/15 17:01	123-91-1	M1
Ethylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/21/15 17:01	87-68-3	
2-Hexanone	ND	ug/kg	53.8	4.2	1		10/21/15 17:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	99-87-6	M1
Methylene Chloride	**5.5J**	ug/kg	21.5	3.2	1		10/21/15 17:01	75-09-2	M1

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-4A (18-20) **Lab ID: 92272410014** Collected: 10/19/15 12:55 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.8	4.0	1		10/21/15 17:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/21/15 17:01	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/21/15 17:01	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	103-65-1	M1
Styrene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 17:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/21/15 17:01	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/21/15 17:01	87-61-6	M1
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/21/15 17:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 17:01	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		10/21/15 17:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/21/15 17:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/21/15 17:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 17:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 17:01	108-67-8	M1
Vinyl acetate	ND	ug/kg	53.8	9.5	1		10/21/15 17:01	108-05-4	
Vinyl chloride	ND	ug/kg	10.8	1.9	1		10/21/15 17:01	75-01-4	
Xylene (Total)	ND	ug/kg	10.8	3.9	1		10/21/15 17:01	1330-20-7	
m&p-Xylene	ND	ug/kg	10.8	3.9	1		10/21/15 17:01	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.0	1		10/21/15 17:01	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/21/15 17:01	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/21/15 17:01	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-132		1		10/21/15 17:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.5**	%	0.10	0.10	1		10/20/15 18:55		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-4A (23-25) **Lab ID: 92272410015** Collected: 10/19/15 13:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**56.2J**	ug/kg	107	10.7	1		10/21/15 17:21	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1		10/21/15 17:21	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		10/21/15 17:21	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	75-27-4	
Bromoform	ND	ug/kg	5.3	2.5	1		10/21/15 17:21	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		10/21/15 17:21	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1		10/21/15 17:21	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		10/21/15 17:21	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		10/21/15 17:21	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1		10/21/15 17:21	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		10/21/15 17:21	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		10/21/15 17:21	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		10/21/15 17:21	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		10/21/15 17:21	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.7	1		10/21/15 17:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		10/21/15 17:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.8	1		10/21/15 17:21	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1.6	1		10/21/15 17:21	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.4	1		10/21/15 17:21	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	75-35-4	
cis-1,2-Dichloroethene	**1.6J**	ug/kg	5.3	1.5	1		10/21/15 17:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/21/15 17:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/21/15 17:21	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	160	128	1		10/21/15 17:21	123-91-1	
Ethylbenzene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		10/21/15 17:21	87-68-3	
2-Hexanone	ND	ug/kg	53.4	4.2	1		10/21/15 17:21	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	99-87-6	
Methylene Chloride	**13.3J**	ug/kg	21.4	3.2	1		10/21/15 17:21	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-4A (23-25) **Lab ID: 92272410015** Collected: 10/19/15 13:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.4	4.0	1		10/21/15 17:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		10/21/15 17:21	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		10/21/15 17:21	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		10/21/15 17:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1		10/21/15 17:21	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.4	1		10/21/15 17:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		10/21/15 17:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		10/21/15 17:21	79-00-5	
Trichloroethene	**4.0J**	ug/kg	5.3	2.2	1		10/21/15 17:21	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.4	1		10/21/15 17:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		10/21/15 17:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		10/21/15 17:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		10/21/15 17:21	108-67-8	
Vinyl acetate	ND	ug/kg	53.4	9.4	1		10/21/15 17:21	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1		10/21/15 17:21	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.8	1		10/21/15 17:21	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.8	1		10/21/15 17:21	179601-23-1	
o-Xylene	ND	ug/kg	5.3	2.0	1		10/21/15 17:21	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/21/15 17:21	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		10/21/15 17:21	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/21/15 17:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.6**	%	0.10	0.10	1		10/20/15 18:55		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-4A (28-30) **Lab ID: 92272410016** Collected: 10/19/15 13:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**81.2J**	ug/kg	97.2	9.7	1		10/21/15 17:41	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		10/21/15 17:41	71-43-2	
Bromobenzene	ND	ug/kg	4.9	1.9	1		10/21/15 17:41	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	75-27-4	
Bromoform	ND	ug/kg	4.9	2.2	1		10/21/15 17:41	75-25-2	
Bromomethane	ND	ug/kg	9.7	2.4	1		10/21/15 17:41	74-83-9	
2-Butanone (MEK)	**18.0J**	ug/kg	97.2	2.8	1		10/21/15 17:41	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		10/21/15 17:41	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	1.9	1		10/21/15 17:41	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.5	1		10/21/15 17:41	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	108-90-7	
Chloroethane	ND	ug/kg	9.7	2.3	1		10/21/15 17:41	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		10/21/15 17:41	67-66-3	
Chloromethane	ND	ug/kg	9.7	2.3	1		10/21/15 17:41	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1		10/21/15 17:41	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.4	1		10/21/15 17:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		10/21/15 17:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.7	3.5	1		10/21/15 17:41	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		10/21/15 17:41	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.1	1		10/21/15 17:41	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	75-35-4	
cis-1,2-Dichloroethene	**32.8**	ug/kg	4.9	1.4	1		10/21/15 17:41	156-59-2	
trans-1,2-Dichloroethene	**7.6**	ug/kg	4.9	1.8	1		10/21/15 17:41	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/21/15 17:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/21/15 17:41	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	146	117	1		10/21/15 17:41	123-91-1	
Ethylbenzene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	1.9	1		10/21/15 17:41	87-68-3	
2-Hexanone	ND	ug/kg	48.6	3.8	1		10/21/15 17:41	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	98-82-8	
p-Isopropyltoluene	**2.4J**	ug/kg	4.9	1.7	1		10/21/15 17:41	99-87-6	
Methylene Chloride	**7.4J**	ug/kg	19.4	2.9	1		10/21/15 17:41	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-4A (28-30) **Lab ID: 92272410016** Collected: 10/19/15 13:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.6	3.6	1		10/21/15 17:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		10/21/15 17:41	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		10/21/15 17:41	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	103-65-1	
Styrene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.0	1		10/21/15 17:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	79-34-5	
Tetrachloroethene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	127-18-4	
Toluene	**4.3J**	ug/kg	4.9	1.7	1		10/21/15 17:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.1	1		10/21/15 17:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		10/21/15 17:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.0	1		10/21/15 17:41	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.0	1		10/21/15 17:41	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.1	1		10/21/15 17:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		10/21/15 17:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	1.9	1		10/21/15 17:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.7	1		10/21/15 17:41	108-67-8	
Vinyl acetate	ND	ug/kg	48.6	8.6	1		10/21/15 17:41	108-05-4	
Vinyl chloride	ND	ug/kg	9.7	1.7	1		10/21/15 17:41	75-01-4	
Xylene (Total)	ND	ug/kg	9.7	3.5	1		10/21/15 17:41	1330-20-7	
m&p-Xylene	ND	ug/kg	9.7	3.5	1		10/21/15 17:41	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.8	1		10/21/15 17:41	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/21/15 17:41	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/21/15 17:41	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/21/15 17:41	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.2**	%	0.10	0.10	1		10/20/15 18:55		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-3 (18-20) **Lab ID: 92272410017** Collected: 10/19/15 13:45 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**59.4J**	ug/kg	107	10.7	1		10/21/15 18:01	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1		10/21/15 18:01	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		10/21/15 18:01	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	75-27-4	
Bromoform	ND	ug/kg	5.3	2.5	1		10/21/15 18:01	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		10/21/15 18:01	74-83-9	
2-Butanone (MEK)	**9.6J**	ug/kg	107	3.1	1		10/21/15 18:01	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		10/21/15 18:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		10/21/15 18:01	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1		10/21/15 18:01	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		10/21/15 18:01	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		10/21/15 18:01	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		10/21/15 18:01	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		10/21/15 18:01	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.7	1		10/21/15 18:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		10/21/15 18:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.8	1		10/21/15 18:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1.6	1		10/21/15 18:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.3	1		10/21/15 18:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	75-35-4	
cis-1,2-Dichloroethene	**3.1J**	ug/kg	5.3	1.5	1		10/21/15 18:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/21/15 18:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/21/15 18:01	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	160	128	1		10/21/15 18:01	123-91-1	
Ethylbenzene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		10/21/15 18:01	87-68-3	
2-Hexanone	ND	ug/kg	53.3	4.2	1		10/21/15 18:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	99-87-6	
Methylene Chloride	**8.8J**	ug/kg	21.3	3.2	1		10/21/15 18:01	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-3 (18-20) **Lab ID: 92272410017** Collected: 10/19/15 13:45 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.3	3.9	1		10/21/15 18:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		10/21/15 18:01	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		10/21/15 18:01	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		10/21/15 18:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1		10/21/15 18:01	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.3	1		10/21/15 18:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		10/21/15 18:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		10/21/15 18:01	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1		10/21/15 18:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.3	1		10/21/15 18:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		10/21/15 18:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		10/21/15 18:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		10/21/15 18:01	108-67-8	
Vinyl acetate	ND	ug/kg	53.3	9.4	1		10/21/15 18:01	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1		10/21/15 18:01	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.8	1		10/21/15 18:01	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.8	1		10/21/15 18:01	179601-23-1	
o-Xylene	ND	ug/kg	5.3	2.0	1		10/21/15 18:01	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/21/15 18:01	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/21/15 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-132		1		10/21/15 18:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.10	0.10	1		10/20/15 18:55		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-3 (23-25) **Lab ID: 92272410018** Collected: 10/19/15 13:50 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**19.9J**	ug/kg	118	11.8	1		10/21/15 18:21	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		10/21/15 18:21	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.4	1		10/21/15 18:21	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		10/21/15 18:21	75-25-2	
Bromomethane	ND	ug/kg	11.8	3.0	1		10/21/15 18:21	74-83-9	
2-Butanone (MEK)	ND	ug/kg	118	3.4	1		10/21/15 18:21	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		10/21/15 18:21	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.4	1		10/21/15 18:21	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		10/21/15 18:21	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	108-90-7	
Chloroethane	ND	ug/kg	11.8	2.8	1		10/21/15 18:21	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		10/21/15 18:21	67-66-3	
Chloromethane	ND	ug/kg	11.8	2.8	1		10/21/15 18:21	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.3	1		10/21/15 18:21	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	106-93-4	
Dibromomethane	ND	ug/kg	5.9	3.0	1		10/21/15 18:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.4	1		10/21/15 18:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.8	4.3	1		10/21/15 18:21	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		10/21/15 18:21	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		10/21/15 18:21	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.7	1		10/21/15 18:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/21/15 18:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/21/15 18:21	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	178	142	1		10/21/15 18:21	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.4	1		10/21/15 18:21	87-68-3	
2-Hexanone	ND	ug/kg	59.2	4.6	1		10/21/15 18:21	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	99-87-6	
Methylene Chloride	**9.8J**	ug/kg	23.7	3.6	1		10/21/15 18:21	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-3 (23-25) **Lab ID: 92272410018** Collected: 10/19/15 13:50 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.2	4.4	1		10/21/15 18:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		10/21/15 18:21	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		10/21/15 18:21	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		10/21/15 18:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		10/21/15 18:21	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		10/21/15 18:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		10/21/15 18:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		10/21/15 18:21	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		10/21/15 18:21	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		10/21/15 18:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		10/21/15 18:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.4	1		10/21/15 18:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		10/21/15 18:21	108-67-8	
Vinyl acetate	ND	ug/kg	59.2	10.4	1		10/21/15 18:21	108-05-4	
Vinyl chloride	ND	ug/kg	11.8	2.1	1		10/21/15 18:21	75-01-4	
Xylene (Total)	ND	ug/kg	11.8	4.3	1		10/21/15 18:21	1330-20-7	
m&p-Xylene	ND	ug/kg	11.8	4.3	1		10/21/15 18:21	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		10/21/15 18:21	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/21/15 18:21	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/21/15 18:21	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		10/21/15 18:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.5**	%	0.10	0.10	1		10/20/15 18:55		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-3 (28-30) **Lab ID: 92272410019** Collected: 10/19/15 14:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**18.4J**	ug/kg	120	12.0	1		10/21/15 18:40	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		10/21/15 18:40	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		10/21/15 18:40	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	75-27-4	
Bromoform	ND	ug/kg	6.0	2.8	1		10/21/15 18:40	75-25-2	
Bromomethane	ND	ug/kg	12.0	3.0	1		10/21/15 18:40	74-83-9	
2-Butanone (MEK)	**6.7J**	ug/kg	120	3.5	1		10/21/15 18:40	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		10/21/15 18:40	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		10/21/15 18:40	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		10/21/15 18:40	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	108-90-7	
Chloroethane	ND	ug/kg	12.0	2.9	1		10/21/15 18:40	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		10/21/15 18:40	67-66-3	
Chloromethane	ND	ug/kg	12.0	2.9	1		10/21/15 18:40	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		10/21/15 18:40	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		10/21/15 18:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		10/21/15 18:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.0	4.3	1		10/21/15 18:40	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.0	1.8	1		10/21/15 18:40	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.6	1		10/21/15 18:40	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.0	1.7	1		10/21/15 18:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/21/15 18:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/21/15 18:40	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	181	144	1		10/21/15 18:40	123-91-1	
Ethylbenzene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		10/21/15 18:40	87-68-3	
2-Hexanone	ND	ug/kg	60.2	4.7	1		10/21/15 18:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	99-87-6	
Methylene Chloride	**6.8J**	ug/kg	24.1	3.6	1		10/21/15 18:40	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-3 (28-30) **Lab ID: 92272410019** Collected: 10/19/15 14:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.2	4.5	1		10/21/15 18:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		10/21/15 18:40	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		10/21/15 18:40	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	103-65-1	
Styrene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		10/21/15 18:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	79-34-5	
Tetrachloroethene	ND	ug/kg	6.0	2.0	1		10/21/15 18:40	127-18-4	
Toluene	**2.8J**	ug/kg	6.0	2.2	1		10/21/15 18:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.6	1		10/21/15 18:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		10/21/15 18:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		10/21/15 18:40	79-00-5	
Trichloroethene	ND	ug/kg	6.0	2.5	1		10/21/15 18:40	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.6	1		10/21/15 18:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		10/21/15 18:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		10/21/15 18:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.2	1		10/21/15 18:40	108-67-8	
Vinyl acetate	ND	ug/kg	60.2	10.6	1		10/21/15 18:40	108-05-4	
Vinyl chloride	ND	ug/kg	12.0	2.2	1		10/21/15 18:40	75-01-4	
Xylene (Total)	ND	ug/kg	12.0	4.3	1		10/21/15 18:40	1330-20-7	
m&p-Xylene	ND	ug/kg	12.0	4.3	1		10/21/15 18:40	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		10/21/15 18:40	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/21/15 18:40	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/21/15 18:40	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/21/15 18:40	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.0**	%	0.10	0.10	1		10/20/15 18:56		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: TRIP BLANK 02 **Lab ID: 92272410020** Collected: 10/19/15 14:15 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**12.5J**	ug/kg	100	10.0	1		10/21/15 19:00	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/21/15 19:00	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/21/15 19:00	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/21/15 19:00	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/21/15 19:00	74-83-9	
2-Butanone (MEK)	**11.2J**	ug/kg	100	2.9	1		10/21/15 19:00	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/21/15 19:00	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/21/15 19:00	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/21/15 19:00	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/21/15 19:00	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/21/15 19:00	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/21/15 19:00	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/21/15 19:00	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/21/15 19:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/21/15 19:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/21/15 19:00	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/21/15 19:00	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/21/15 19:00	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/21/15 19:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/21/15 19:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/21/15 19:00	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/21/15 19:00	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/21/15 19:00	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/21/15 19:00	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	99-87-6	
Methylene Chloride	**5.1J**	ug/kg	20.0	3.0	1		10/21/15 19:00	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: TRIP BLANK 02 **Lab ID: 92272410020** Collected: 10/19/15 14:15 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/21/15 19:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/21/15 19:00	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/21/15 19:00	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/21/15 19:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/21/15 19:00	127-18-4	
Toluene	**2.6J**	ug/kg	5.0	1.8	1		10/21/15 19:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/21/15 19:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/21/15 19:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/21/15 19:00	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/21/15 19:00	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/21/15 19:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/21/15 19:00	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/21/15 19:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/21/15 19:00	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/21/15 19:00	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/21/15 19:00	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/21/15 19:00	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/21/15 19:00	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/21/15 19:00	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/21/15 19:00	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/21/15 19:00	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		10/21/15 19:00	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (0-2) **Lab ID: 92272410021** Collected: 10/19/15 14:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**19.3J**	ug/kg	109	10.9	1		10/21/15 19:20	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/21/15 19:20	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:20	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/21/15 19:20	75-25-2	
Bromomethane	ND	ug/kg	10.9	2.7	1		10/21/15 19:20	74-83-9	
2-Butanone (MEK)	**13.2J**	ug/kg	109	3.2	1		10/21/15 19:20	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/21/15 19:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:20	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/21/15 19:20	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	108-90-7	
Chloroethane	ND	ug/kg	10.9	2.6	1		10/21/15 19:20	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/21/15 19:20	67-66-3	
Chloromethane	ND	ug/kg	10.9	2.6	1		10/21/15 19:20	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/21/15 19:20	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/21/15 19:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.9	3.9	1		10/21/15 19:20	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/21/15 19:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/21/15 19:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/21/15 19:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 19:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 19:20	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	163	130	1		10/21/15 19:20	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/21/15 19:20	87-68-3	
2-Hexanone	ND	ug/kg	54.3	4.2	1		10/21/15 19:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	99-87-6	
Methylene Chloride	**7.8J**	ug/kg	21.7	3.3	1		10/21/15 19:20	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (0-2) **Lab ID: 92272410021** Collected: 10/19/15 14:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.3	4.0	1		10/21/15 19:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/21/15 19:20	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/21/15 19:20	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	103-65-1	
Styrene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 19:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/21/15 19:20	127-18-4	
Toluene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/21/15 19:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/21/15 19:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 19:20	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		10/21/15 19:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/21/15 19:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/21/15 19:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	2.0	1		10/21/15 19:20	108-67-8	
Vinyl acetate	ND	ug/kg	54.3	9.6	1		10/21/15 19:20	108-05-4	
Vinyl chloride	ND	ug/kg	10.9	2.0	1		10/21/15 19:20	75-01-4	
Xylene (Total)	ND	ug/kg	10.9	3.9	1		10/21/15 19:20	1330-20-7	
m&p-Xylene	ND	ug/kg	10.9	3.9	1		10/21/15 19:20	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.1	1		10/21/15 19:20	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/21/15 19:20	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/21/15 19:20	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/21/15 19:20	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.8**	%	0.10	0.10	1		10/20/15 18:49		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (3-5) **Lab ID: 92272410022** Collected: 10/19/15 14:15 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**28.7J**	ug/kg	99.0	9.9	1		10/21/15 19:40	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		10/21/15 19:40	71-43-2	
Bromobenzene	ND	ug/kg	4.9	2.0	1		10/21/15 19:40	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	75-27-4	
Bromoform	ND	ug/kg	4.9	2.3	1		10/21/15 19:40	75-25-2	
Bromomethane	ND	ug/kg	9.9	2.5	1		10/21/15 19:40	74-83-9	
2-Butanone (MEK)	**15.8J**	ug/kg	99.0	2.9	1		10/21/15 19:40	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		10/21/15 19:40	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	2.0	1		10/21/15 19:40	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.6	1		10/21/15 19:40	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	108-90-7	
Chloroethane	ND	ug/kg	9.9	2.4	1		10/21/15 19:40	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		10/21/15 19:40	67-66-3	
Chloromethane	ND	ug/kg	9.9	2.4	1		10/21/15 19:40	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.6	1		10/21/15 19:40	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.5	1		10/21/15 19:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	2.0	1		10/21/15 19:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.9	3.6	1		10/21/15 19:40	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		10/21/15 19:40	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.2	1		10/21/15 19:40	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.9	1.4	1		10/21/15 19:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/21/15 19:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/21/15 19:40	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	148	119	1		10/21/15 19:40	123-91-1	
Ethylbenzene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	2.0	1		10/21/15 19:40	87-68-3	
2-Hexanone	ND	ug/kg	49.5	3.9	1		10/21/15 19:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	99-87-6	
Methylene Chloride	**9.1J**	ug/kg	19.8	3.0	1		10/21/15 19:40	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (3-5) **Lab ID: 92272410022** Collected: 10/19/15 14:15 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.5	3.7	1		10/21/15 19:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		10/21/15 19:40	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		10/21/15 19:40	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		10/21/15 19:40	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.1	1		10/21/15 19:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	79-34-5	
Tetrachloroethene	**1.7J**	ug/kg	4.9	1.7	1		10/21/15 19:40	127-18-4	
Toluene	**1.9J**	ug/kg	4.9	1.8	1		10/21/15 19:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.2	1		10/21/15 19:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		10/21/15 19:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.1	1		10/21/15 19:40	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.1	1		10/21/15 19:40	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.2	1		10/21/15 19:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		10/21/15 19:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	2.0	1		10/21/15 19:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.8	1		10/21/15 19:40	108-67-8	
Vinyl acetate	ND	ug/kg	49.5	8.7	1		10/21/15 19:40	108-05-4	
Vinyl chloride	ND	ug/kg	9.9	1.8	1		10/21/15 19:40	75-01-4	
Xylene (Total)	ND	ug/kg	9.9	3.6	1		10/21/15 19:40	1330-20-7	
m&p-Xylene	ND	ug/kg	9.9	3.6	1		10/21/15 19:40	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.9	1		10/21/15 19:40	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/21/15 19:40	2037-26-5	1g
4-Bromofluorobenzene (S)	101	%	70-130		1		10/21/15 19:40	460-00-4	
1,2-Dichloroethane-d4 (S)	177	%	70-132		1		10/21/15 19:40	17060-07-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.9**	%	0.10	0.10	1		10/20/15 18:56		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (8-10) **Lab ID: 92272410023** Collected: 10/19/15 14:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**22.6J**	ug/kg	109	10.9	1		10/21/15 19:59	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/21/15 19:59	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:59	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/21/15 19:59	75-25-2	
Bromomethane	ND	ug/kg	10.9	2.7	1		10/21/15 19:59	74-83-9	
2-Butanone (MEK)	**12.5J**	ug/kg	109	3.2	1		10/21/15 19:59	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/21/15 19:59	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:59	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/21/15 19:59	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	108-90-7	
Chloroethane	ND	ug/kg	10.9	2.6	1		10/21/15 19:59	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/21/15 19:59	67-66-3	
Chloromethane	ND	ug/kg	10.9	2.6	1		10/21/15 19:59	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/21/15 19:59	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/21/15 19:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.9	3.9	1		10/21/15 19:59	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/21/15 19:59	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/21/15 19:59	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/21/15 19:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 19:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/21/15 19:59	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	163	131	1		10/21/15 19:59	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/21/15 19:59	87-68-3	
2-Hexanone	ND	ug/kg	54.5	4.3	1		10/21/15 19:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	99-87-6	
Methylene Chloride	**4.9J**	ug/kg	21.8	3.3	1		10/21/15 19:59	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (8-10) **Lab ID: 92272410023** Collected: 10/19/15 14:10 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.5	4.0	1		10/21/15 19:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/21/15 19:59	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/21/15 19:59	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	103-65-1	
Styrene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 19:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.9	1		10/21/15 19:59	127-18-4	
Toluene	**2.2J**	ug/kg	5.4	2.0	1		10/21/15 19:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/21/15 19:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/21/15 19:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/21/15 19:59	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		10/21/15 19:59	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/21/15 19:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/21/15 19:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/21/15 19:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	2.0	1		10/21/15 19:59	108-67-8	
Vinyl acetate	ND	ug/kg	54.5	9.6	1		10/21/15 19:59	108-05-4	
Vinyl chloride	ND	ug/kg	10.9	2.0	1		10/21/15 19:59	75-01-4	
Xylene (Total)	ND	ug/kg	10.9	3.9	1		10/21/15 19:59	1330-20-7	
m&p-Xylene	ND	ug/kg	10.9	3.9	1		10/21/15 19:59	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.1	1		10/21/15 19:59	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/21/15 19:59	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/21/15 19:59	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/21/15 19:59	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.7**	%	0.10	0.10	1		10/20/15 18:49		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (13-15) **Lab ID: 92272410024** Collected: 10/19/15 14:30 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**16.8J**	ug/kg	66.9	6.7	1		10/21/15 20:19	67-64-1	B
Benzene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	71-43-2	
Bromobenzene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	108-86-1	
Bromochloromethane	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	74-97-5	
Bromodichloromethane	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	75-27-4	
Bromoform	ND	ug/kg	3.3	1.5	1		10/21/15 20:19	75-25-2	
Bromomethane	ND	ug/kg	6.7	1.7	1		10/21/15 20:19	74-83-9	
2-Butanone (MEK)	ND	ug/kg	66.9	1.9	1		10/21/15 20:19	78-93-3	
n-Butylbenzene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	104-51-8	
sec-Butylbenzene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	135-98-8	
tert-Butylbenzene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	98-06-6	
Carbon tetrachloride	ND	ug/kg	3.3	1.7	1		10/21/15 20:19	56-23-5	
Chlorobenzene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	108-90-7	
Chloroethane	ND	ug/kg	6.7	1.6	1		10/21/15 20:19	75-00-3	
Chloroform	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	67-66-3	
Chloromethane	ND	ug/kg	6.7	1.6	1		10/21/15 20:19	74-87-3	
2-Chlorotoluene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	95-49-8	
4-Chlorotoluene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	3.3	2.4	1		10/21/15 20:19	96-12-8	
Dibromochloromethane	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	106-93-4	
Dibromomethane	ND	ug/kg	3.3	1.7	1		10/21/15 20:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	6.7	2.4	1		10/21/15 20:19	75-71-8	
1,1-Dichloroethane	ND	ug/kg	3.3	1.0	1		10/21/15 20:19	75-34-3	
1,2-Dichloroethane	ND	ug/kg	3.3	1.5	1		10/21/15 20:19	107-06-2	
1,1-Dichloroethene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	75-35-4	
cis-1,2-Dichloroethene	**1.2J**	ug/kg	3.3	0.94	1		10/21/15 20:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	156-60-5	
1,2-Dichloropropane	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	78-87-5	
1,3-Dichloropropane	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	142-28-9	
2,2-Dichloropropane	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	594-20-7	
1,1-Dichloropropene	ND	ug/kg	3.3	1.0	1		10/21/15 20:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	3.3	1.0	1		10/21/15 20:19	10061-02-6	
Diisopropyl ether	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	100	80.3	1		10/21/15 20:19	123-91-1	
Ethylbenzene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	87-68-3	
2-Hexanone	ND	ug/kg	33.5	2.6	1		10/21/15 20:19	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	98-82-8	
p-Isopropyltoluene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	99-87-6	
Methylene Chloride	**2.4J**	ug/kg	13.4	2.0	1		10/21/15 20:19	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-10 (13-15) **Lab ID: 92272410024** Collected: 10/19/15 14:30 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	33.5	2.5	1		10/21/15 20:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	3.3	1.0	1		10/21/15 20:19	1634-04-4	
Naphthalene	ND	ug/kg	3.3	0.80	1		10/21/15 20:19	91-20-3	
n-Propylbenzene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	103-65-1	
Styrene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	3.3	1.4	1		10/21/15 20:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	79-34-5	
Tetrachloroethene	**11.1**	ug/kg	3.3	1.1	1		10/21/15 20:19	127-18-4	
Toluene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	3.3	1.5	1		10/21/15 20:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	3.3	1.4	1		10/21/15 20:19	79-00-5	
Trichloroethene	**2.1J**	ug/kg	3.3	1.4	1		10/21/15 20:19	79-01-6	
Trichlorofluoromethane	ND	ug/kg	3.3	1.5	1		10/21/15 20:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	3.3	1.1	1		10/21/15 20:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	3.3	1.2	1		10/21/15 20:19	108-67-8	
Vinyl acetate	ND	ug/kg	33.5	5.9	1		10/21/15 20:19	108-05-4	
Vinyl chloride	ND	ug/kg	6.7	1.2	1		10/21/15 20:19	75-01-4	
Xylene (Total)	ND	ug/kg	6.7	2.4	1		10/21/15 20:19	1330-20-7	
m&p-Xylene	ND	ug/kg	6.7	2.4	1		10/21/15 20:19	179601-23-1	
o-Xylene	ND	ug/kg	3.3	1.3	1		10/21/15 20:19	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/21/15 20:19	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/21/15 20:19	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/21/15 20:19	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.9**	%	0.10	0.10	1		10/20/15 18:49		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-6 (23-25) **Lab ID: 92272410025** Collected: 10/19/15 15:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**27.6J**	ug/kg	161	16.1	1		10/21/15 20:39	67-64-1	
Benzene	ND	ug/kg	8.0	2.6	1		10/21/15 20:39	71-43-2	
Bromobenzene	ND	ug/kg	8.0	3.2	1		10/21/15 20:39	108-86-1	
Bromochloromethane	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	74-97-5	
Bromodichloromethane	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	75-27-4	
Bromoform	ND	ug/kg	8.0	3.7	1		10/21/15 20:39	75-25-2	
Bromomethane	ND	ug/kg	16.1	4.0	1		10/21/15 20:39	74-83-9	
2-Butanone (MEK)	**18.8J**	ug/kg	161	4.7	1		10/21/15 20:39	78-93-3	
n-Butylbenzene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	104-51-8	
sec-Butylbenzene	ND	ug/kg	8.0	2.6	1		10/21/15 20:39	135-98-8	
tert-Butylbenzene	ND	ug/kg	8.0	3.2	1		10/21/15 20:39	98-06-6	
Carbon tetrachloride	ND	ug/kg	8.0	4.2	1		10/21/15 20:39	56-23-5	
Chlorobenzene	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	108-90-7	
Chloroethane	ND	ug/kg	16.1	3.9	1		10/21/15 20:39	75-00-3	
Chloroform	ND	ug/kg	8.0	2.6	1		10/21/15 20:39	67-66-3	
Chloromethane	ND	ug/kg	16.1	3.9	1		10/21/15 20:39	74-87-3	
2-Chlorotoluene	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	95-49-8	
4-Chlorotoluene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	8.0	5.8	1		10/21/15 20:39	96-12-8	
Dibromochloromethane	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	106-93-4	
Dibromomethane	ND	ug/kg	8.0	4.0	1		10/21/15 20:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	8.0	3.2	1		10/21/15 20:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	16.1	5.8	1		10/21/15 20:39	75-71-8	
1,1-Dichloroethane	ND	ug/kg	8.0	2.4	1		10/21/15 20:39	75-34-3	
1,2-Dichloroethane	ND	ug/kg	8.0	3.5	1		10/21/15 20:39	107-06-2	
1,1-Dichloroethene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	8.0	2.2	1		10/21/15 20:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	156-60-5	
1,2-Dichloropropane	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	78-87-5	
1,3-Dichloropropane	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	142-28-9	
2,2-Dichloropropane	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	594-20-7	
1,1-Dichloropropene	ND	ug/kg	8.0	2.4	1		10/21/15 20:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	8.0	2.4	1		10/21/15 20:39	10061-02-6	
Diisopropyl ether	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	241	193	1		10/21/15 20:39	123-91-1	
Ethylbenzene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	8.0	3.2	1		10/21/15 20:39	87-68-3	
2-Hexanone	ND	ug/kg	80.3	6.3	1		10/21/15 20:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	98-82-8	
p-Isopropyltoluene	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	99-87-6	
Methylene Chloride	**9.3J**	ug/kg	32.1	4.8	1		10/21/15 20:39	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-6 (23-25) **Lab ID: 92272410025** Collected: 10/19/15 15:00 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	80.3	5.9	1		10/21/15 20:39	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	8.0	2.4	1		10/21/15 20:39	1634-04-4	
Naphthalene	ND	ug/kg	8.0	1.9	1		10/21/15 20:39	91-20-3	
n-Propylbenzene	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	103-65-1	
Styrene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	8.0	3.4	1		10/21/15 20:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	79-34-5	
Tetrachloroethene	ND	ug/kg	8.0	2.7	1		10/21/15 20:39	127-18-4	
Toluene	**3.3J**	ug/kg	8.0	2.9	1		10/21/15 20:39	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	8.0	3.5	1		10/21/15 20:39	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	8.0	2.6	1		10/21/15 20:39	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	8.0	3.4	1		10/21/15 20:39	79-00-5	
Trichloroethene	ND	ug/kg	8.0	3.4	1		10/21/15 20:39	79-01-6	
Trichlorofluoromethane	ND	ug/kg	8.0	3.5	1		10/21/15 20:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	8.0	2.6	1		10/21/15 20:39	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	8.0	3.2	1		10/21/15 20:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	8.0	2.9	1		10/21/15 20:39	108-67-8	
Vinyl acetate	ND	ug/kg	80.3	14.1	1		10/21/15 20:39	108-05-4	
Vinyl chloride	ND	ug/kg	16.1	2.9	1		10/21/15 20:39	75-01-4	
Xylene (Total)	ND	ug/kg	16.1	5.8	1		10/21/15 20:39	1330-20-7	
m&p-Xylene	ND	ug/kg	16.1	5.8	1		10/21/15 20:39	179601-23-1	
o-Xylene	ND	ug/kg	8.0	3.1	1		10/21/15 20:39	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/21/15 20:39	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/21/15 20:39	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/21/15 20:39	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.7**	%	0.10	0.10	1		10/20/15 18:49		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-5 (18-20) **Lab ID: 92272410026** Collected: 10/19/15 15:30 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**19.3J**	ug/kg	115	11.5	1		10/21/15 20:59	67-64-1	
Benzene	ND	ug/kg	5.8	1.8	1		10/21/15 20:59	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/21/15 20:59	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/21/15 20:59	75-25-2	
Bromomethane	ND	ug/kg	11.5	2.9	1		10/21/15 20:59	74-83-9	
2-Butanone (MEK)	**17.0J**	ug/kg	115	3.3	1		10/21/15 20:59	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.8	1		10/21/15 20:59	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/21/15 20:59	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/21/15 20:59	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	108-90-7	
Chloroethane	ND	ug/kg	11.5	2.8	1		10/21/15 20:59	75-00-3	
Chloroform	ND	ug/kg	5.8	1.8	1		10/21/15 20:59	67-66-3	
Chloromethane	ND	ug/kg	11.5	2.8	1		10/21/15 20:59	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/21/15 20:59	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/21/15 20:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/21/15 20:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.5	4.2	1		10/21/15 20:59	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/21/15 20:59	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.5	1		10/21/15 20:59	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/21/15 20:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/21/15 20:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/21/15 20:59	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	173	139	1		10/21/15 20:59	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/21/15 20:59	87-68-3	
2-Hexanone	ND	ug/kg	57.7	4.5	1		10/21/15 20:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	99-87-6	
Methylene Chloride	**5.3J**	ug/kg	23.1	3.5	1		10/21/15 20:59	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Sample: DS-5 (18-20) **Lab ID: 92272410026** Collected: 10/19/15 15:30 Received: 10/20/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.7	4.3	1		10/21/15 20:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/21/15 20:59	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/21/15 20:59	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/21/15 20:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/21/15 20:59	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.5	1		10/21/15 20:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.8	1		10/21/15 20:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/21/15 20:59	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/21/15 20:59	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.5	1		10/21/15 20:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.8	1		10/21/15 20:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/21/15 20:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/21/15 20:59	108-67-8	
Vinyl acetate	ND	ug/kg	57.7	10.2	1		10/21/15 20:59	108-05-4	
Vinyl chloride	ND	ug/kg	11.5	2.1	1		10/21/15 20:59	75-01-4	
Xylene (Total)	ND	ug/kg	11.5	4.2	1		10/21/15 20:59	1330-20-7	
m&p-Xylene	ND	ug/kg	11.5	4.2	1		10/21/15 20:59	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/21/15 20:59	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/21/15 20:59	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/21/15 20:59	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		1		10/21/15 20:59	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.5**	%	0.10	0.10	1		10/20/15 18:49		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: MSV/33954
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92272410001

METHOD BLANK: 1590879
Matrix: Water
Associated Lab Samples: 92272410001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	10/23/15 16:29	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	10/23/15 16:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	10/23/15 16:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	10/23/15 16:29	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	10/23/15 16:29	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	10/23/15 16:29	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	10/23/15 16:29	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	10/23/15 16:29	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	10/23/15 16:29	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	10/23/15 16:29	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	10/23/15 16:29	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	10/23/15 16:29	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	10/23/15 16:29	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	10/23/15 16:29	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	10/23/15 16:29	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	10/23/15 16:29	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	10/23/15 16:29	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	10/23/15 16:29	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	10/23/15 16:29	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	10/23/15 16:29	
2-Chlorotoluene	ug/L	ND	1.0	0.35	10/23/15 16:29	
2-Hexanone	ug/L	ND	5.0	0.46	10/23/15 16:29	
4-Chlorotoluene	ug/L	ND	1.0	0.31	10/23/15 16:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	10/23/15 16:29	
Acetone	ug/L	ND	25.0	10.0	10/23/15 16:29	
Benzene	ug/L	ND	1.0	0.25	10/23/15 16:29	
Bromobenzene	ug/L	ND	1.0	0.30	10/23/15 16:29	
Bromochloromethane	ug/L	ND	1.0	0.17	10/23/15 16:29	
Bromodichloromethane	ug/L	ND	1.0	0.18	10/23/15 16:29	
Bromoform	ug/L	ND	1.0	0.26	10/23/15 16:29	
Bromomethane	ug/L	ND	2.0	0.29	10/23/15 16:29	
Carbon tetrachloride	ug/L	ND	1.0	0.25	10/23/15 16:29	
Chlorobenzene	ug/L	ND	1.0	0.23	10/23/15 16:29	
Chloroethane	ug/L	ND	1.0	0.54	10/23/15 16:29	
Chloroform	ug/L	ND	1.0	0.14	10/23/15 16:29	
Chloromethane	ug/L	ND	1.0	0.11	10/23/15 16:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	10/23/15 16:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	10/23/15 16:29	
Dibromochloromethane	ug/L	ND	1.0	0.21	10/23/15 16:29	
Dibromomethane	ug/L	ND	1.0	0.21	10/23/15 16:29	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	10/23/15 16:29	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

METHOD BLANK: 1590879 Matrix: Water
Associated Lab Samples: 92272410001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	10/23/15 16:29	
Ethylbenzene	ug/L	ND	1.0	0.30	10/23/15 16:29	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	10/23/15 16:29	
m&p-Xylene	ug/L	0.86J	2.0	0.66	10/23/15 16:29	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	10/23/15 16:29	
Methylene Chloride	ug/L	ND	2.0	0.97	10/23/15 16:29	
Naphthalene	ug/L	ND	1.0	0.24	10/23/15 16:29	
o-Xylene	ug/L	ND	1.0	0.23	10/23/15 16:29	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	10/23/15 16:29	
Styrene	ug/L	ND	1.0	0.26	10/23/15 16:29	
Tetrachloroethene	ug/L	ND	1.0	0.46	10/23/15 16:29	
Toluene	ug/L	ND	1.0	0.26	10/23/15 16:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	10/23/15 16:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	10/23/15 16:29	
Trichloroethene	ug/L	ND	1.0	0.47	10/23/15 16:29	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	10/23/15 16:29	
Vinyl acetate	ug/L	ND	2.0	0.35	10/23/15 16:29	
Vinyl chloride	ug/L	ND	1.0	0.62	10/23/15 16:29	
Xylene (Total)	ug/L	ND	2.0	0.66	10/23/15 16:29	
1,2-Dichloroethane-d4 (S)	%	104	70-130		10/23/15 16:29	
4-Bromofluorobenzene (S)	%	104	70-130		10/23/15 16:29	
Toluene-d8 (S)	%	101	70-130		10/23/15 16:29	

LABORATORY CONTROL SAMPLE: 1590880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.1	96	70-130	
1,1,1-Trichloroethane	ug/L	50	54.4	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,2-Trichloroethane	ug/L	50	47.9	96	70-130	
1,1-Dichloroethane	ug/L	50	50.1	100	70-130	
1,1-Dichloroethene	ug/L	50	52.4	105	70-132	
1,1-Dichloropropene	ug/L	50	50.0	100	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.2	106	70-135	
1,2,3-Trichloropropane	ug/L	50	50.2	100	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.4	103	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	46.6	93	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.9	102	70-130	
1,2-Dichlorobenzene	ug/L	50	49.0	98	70-130	
1,2-Dichloroethane	ug/L	50	47.7	95	70-130	
1,2-Dichloropropane	ug/L	50	48.4	97	70-130	
1,3-Dichlorobenzene	ug/L	50	49.2	98	70-130	
1,3-Dichloropropane	ug/L	50	48.6	97	70-130	
1,4-Dichlorobenzene	ug/L	50	49.0	98	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1590880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	56.8	114	58-145	
2-Butanone (MEK)	ug/L	100	109	109	70-145	
2-Chlorotoluene	ug/L	50	48.2	96	70-130	
2-Hexanone	ug/L	100	113	113	70-144	
4-Chlorotoluene	ug/L	50	49.4	99	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	107	107	70-140	
Acetone	ug/L	100	122	122	50-175	
Benzene	ug/L	50	49.0	98	70-130	
Bromobenzene	ug/L	50	49.1	98	70-130	
Bromochloromethane	ug/L	50	52.1	104	70-130	
Bromodichloromethane	ug/L	50	55.4	111	70-130	
Bromoform	ug/L	50	41.8	84	70-130	
Bromomethane	ug/L	50	52.2	104	54-130	
Carbon tetrachloride	ug/L	50	48.7	97	70-132	
Chlorobenzene	ug/L	50	48.3	97	70-130	
Chloroethane	ug/L	50	42.3	85	64-134	
Chloroform	ug/L	50	52.3	105	70-130	
Chloromethane	ug/L	50	48.7	97	64-130	
cis-1,2-Dichloroethene	ug/L	50	49.2	98	70-131	
cis-1,3-Dichloropropene	ug/L	50	52.9	106	70-130	
Dibromochloromethane	ug/L	50	46.4	93	70-130	
Dibromomethane	ug/L	50	50.9	102	70-131	
Dichlorodifluoromethane	ug/L	50	50.9	102	56-130	
Diisopropyl ether	ug/L	50	52.4	105	70-130	
Ethylbenzene	ug/L	50	49.0	98	70-130	
Hexachloro-1,3-butadiene	ug/L	50	65.4	131	70-130	L0
m&p-Xylene	ug/L	100	99.7	100	70-130	
Methyl-tert-butyl ether	ug/L	50	52.5	105	70-130	
Methylene Chloride	ug/L	50	53.3	107	63-130	
Naphthalene	ug/L	50	53.0	106	70-138	
o-Xylene	ug/L	50	50.1	100	70-130	
p-Isopropyltoluene	ug/L	50	50.8	102	70-130	
Styrene	ug/L	50	49.7	99	70-130	
Tetrachloroethene	ug/L	50	50.3	101	70-130	
Toluene	ug/L	50	47.8	96	70-130	
trans-1,2-Dichloroethene	ug/L	50	49.5	99	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.3	97	70-132	
Trichloroethene	ug/L	50	47.5	95	70-130	
Trichlorofluoromethane	ug/L	50	48.8	98	62-133	
Vinyl acetate	ug/L	100	107	107	66-157	
Vinyl chloride	ug/L	50	54.3	109	50-150	
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: MSV/33888 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272410002, 92272410003, 92272410004

METHOD BLANK: 1586528 Matrix: Solid
Associated Lab Samples: 92272410002, 92272410003, 92272410004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.7	2.0	10/20/15 12:15	
1,1,1-Trichloroethane	ug/kg	ND	4.7	1.7	10/20/15 12:15	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.7	1.8	10/20/15 12:15	
1,1,2-Trichloroethane	ug/kg	ND	4.7	2.0	10/20/15 12:15	
1,1-Dichloroethane	ug/kg	ND	4.7	1.4	10/20/15 12:15	
1,1-Dichloroethene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
1,1-Dichloropropene	ug/kg	ND	4.7	1.4	10/20/15 12:15	
1,2,3-Trichlorobenzene	ug/kg	ND	4.7	2.1	10/20/15 12:15	
1,2,3-Trichloropropane	ug/kg	ND	4.7	1.5	10/20/15 12:15	
1,2,4-Trichlorobenzene	ug/kg	ND	4.7	1.5	10/20/15 12:15	
1,2,4-Trimethylbenzene	ug/kg	ND	4.7	1.9	10/20/15 12:15	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.7	3.4	10/20/15 12:15	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.7	1.7	10/20/15 12:15	
1,2-Dichlorobenzene	ug/kg	ND	4.7	1.8	10/20/15 12:15	
1,2-Dichloroethane	ug/kg	ND	4.7	2.1	10/20/15 12:15	
1,2-Dichloropropane	ug/kg	ND	4.7	1.6	10/20/15 12:15	
1,3,5-Trimethylbenzene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
1,3-Dichlorobenzene	ug/kg	ND	4.7	1.9	10/20/15 12:15	
1,3-Dichloropropane	ug/kg	ND	4.7	1.8	10/20/15 12:15	
1,4-Dichlorobenzene	ug/kg	ND	4.7	1.6	10/20/15 12:15	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	140	112	10/20/15 12:15	
2,2-Dichloropropane	ug/kg	ND	4.7	1.6	10/20/15 12:15	
2-Butanone (MEK)	ug/kg	ND	93.3	2.7	10/20/15 12:15	
2-Chlorotoluene	ug/kg	ND	4.7	1.6	10/20/15 12:15	
2-Hexanone	ug/kg	ND	46.6	3.6	10/20/15 12:15	
4-Chlorotoluene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	46.6	3.5	10/20/15 12:15	
Acetone	ug/kg	ND	93.3	9.3	10/20/15 12:15	
Benzene	ug/kg	ND	4.7	1.5	10/20/15 12:15	
Bromobenzene	ug/kg	ND	4.7	1.9	10/20/15 12:15	
Bromochloromethane	ug/kg	ND	4.7	1.6	10/20/15 12:15	
Bromodichloromethane	ug/kg	ND	4.7	1.8	10/20/15 12:15	
Bromoform	ug/kg	ND	4.7	2.1	10/20/15 12:15	
Bromomethane	ug/kg	ND	9.3	2.3	10/20/15 12:15	
Carbon tetrachloride	ug/kg	ND	4.7	2.4	10/20/15 12:15	
Chlorobenzene	ug/kg	ND	4.7	1.8	10/20/15 12:15	
Chloroethane	ug/kg	ND	9.3	2.2	10/20/15 12:15	
Chloroform	ug/kg	ND	4.7	1.5	10/20/15 12:15	
Chloromethane	ug/kg	ND	9.3	2.2	10/20/15 12:15	
cis-1,2-Dichloroethene	ug/kg	ND	4.7	1.3	10/20/15 12:15	
cis-1,3-Dichloropropene	ug/kg	ND	4.7	1.7	10/20/15 12:15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

METHOD BLANK: 1586528 Matrix: Solid
Associated Lab Samples: 92272410002, 92272410003, 92272410004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	4.7	1.7	10/20/15 12:15	
Dibromomethane	ug/kg	ND	4.7	2.3	10/20/15 12:15	
Dichlorodifluoromethane	ug/kg	ND	9.3	3.4	10/20/15 12:15	
Diisopropyl ether	ug/kg	ND	4.7	1.6	10/20/15 12:15	
Ethylbenzene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
Hexachloro-1,3-butadiene	ug/kg	ND	4.7	1.9	10/20/15 12:15	
Isopropylbenzene (Cumene)	ug/kg	ND	4.7	1.8	10/20/15 12:15	
m&p-Xylene	ug/kg	ND	9.3	3.4	10/20/15 12:15	
Methyl-tert-butyl ether	ug/kg	ND	4.7	1.4	10/20/15 12:15	
Methylene Chloride	ug/kg	ND	18.7	2.8	10/20/15 12:15	
n-Butylbenzene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
n-Propylbenzene	ug/kg	ND	4.7	1.6	10/20/15 12:15	
Naphthalene	ug/kg	ND	4.7	1.1	10/20/15 12:15	
o-Xylene	ug/kg	ND	4.7	1.8	10/20/15 12:15	
p-Isopropyltoluene	ug/kg	ND	4.7	1.6	10/20/15 12:15	
sec-Butylbenzene	ug/kg	ND	4.7	1.5	10/20/15 12:15	
Styrene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
tert-Butylbenzene	ug/kg	ND	4.7	1.9	10/20/15 12:15	
Tetrachloroethene	ug/kg	ND	4.7	1.6	10/20/15 12:15	
Toluene	ug/kg	ND	4.7	1.7	10/20/15 12:15	
trans-1,2-Dichloroethene	ug/kg	ND	4.7	1.8	10/20/15 12:15	
trans-1,3-Dichloropropene	ug/kg	ND	4.7	1.4	10/20/15 12:15	
Trichloroethene	ug/kg	ND	4.7	2.0	10/20/15 12:15	
Trichlorofluoromethane	ug/kg	ND	4.7	2.1	10/20/15 12:15	
Vinyl acetate	ug/kg	ND	46.6	8.2	10/20/15 12:15	
Vinyl chloride	ug/kg	ND	9.3	1.7	10/20/15 12:15	
Xylene (Total)	ug/kg	ND	9.3	3.4	10/20/15 12:15	
1,2-Dichloroethane-d4 (S)	%	104	70-132		10/20/15 12:15	
4-Bromofluorobenzene (S)	%	100	70-130		10/20/15 12:15	
Toluene-d8 (S)	%	98	70-130		10/20/15 12:15	

LABORATORY CONTROL SAMPLE: 1586529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	58.1	61.5	106	74-137	
1,1,1-Trichloroethane	ug/kg	58.1	64.3	111	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	58.1	58.6	101	72-141	
1,1,2-Trichloroethane	ug/kg	58.1	58.2	100	78-138	
1,1-Dichloroethane	ug/kg	58.1	61.9	106	69-134	
1,1-Dichloroethene	ug/kg	58.1	65.1	112	67-138	
1,1-Dichloropropene	ug/kg	58.1	62.4	107	69-139	
1,2,3-Trichlorobenzene	ug/kg	58.1	58.7	101	70-146	
1,2,3-Trichloropropane	ug/kg	58.1	57.8	99	69-144	
1,2,4-Trichlorobenzene	ug/kg	58.1	59.3	102	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1586529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	58.1	62.1	107	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	58.1	62.4	107	65-140	
1,2-Dibromoethane (EDB)	ug/kg	58.1	61.4	106	77-135	
1,2-Dichlorobenzene	ug/kg	58.1	60.8	105	77-141	
1,2-Dichloroethane	ug/kg	58.1	59.8	103	65-137	
1,2-Dichloropropane	ug/kg	58.1	59.0	101	72-136	
1,3,5-Trimethylbenzene	ug/kg	58.1	63.4	109	76-133	
1,3-Dichlorobenzene	ug/kg	58.1	62.6	108	74-138	
1,3-Dichloropropane	ug/kg	58.1	59.2	102	71-139	
1,4-Dichlorobenzene	ug/kg	58.1	61.2	105	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1160	1170	101	54-154	
2,2-Dichloropropane	ug/kg	58.1	64.8	112	68-137	
2-Butanone (MEK)	ug/kg	116	126	108	58-147	
2-Chlorotoluene	ug/kg	58.1	62.3	107	73-139	
2-Hexanone	ug/kg	116	130	112	62-145	
4-Chlorotoluene	ug/kg	58.1	62.5	107	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	116	132	113	64-149	
Acetone	ug/kg	116	120	103	53-153	
Benzene	ug/kg	58.1	62.1	107	73-135	
Bromobenzene	ug/kg	58.1	61.6	106	75-133	
Bromochloromethane	ug/kg	58.1	62.3	107	73-134	
Bromodichloromethane	ug/kg	58.1	61.5	106	71-135	
Bromoform	ug/kg	58.1	61.2	105	66-141	
Bromomethane	ug/kg	58.1	67.8	117	53-160	
Carbon tetrachloride	ug/kg	58.1	66.5	114	60-145	
Chlorobenzene	ug/kg	58.1	61.4	106	78-130	
Chloroethane	ug/kg	58.1	57.4	99	64-149	
Chloroform	ug/kg	58.1	61.7	106	70-134	
Chloromethane	ug/kg	58.1	63.4	109	52-150	
cis-1,2-Dichloroethene	ug/kg	58.1	61.7	106	70-133	
cis-1,3-Dichloropropene	ug/kg	58.1	61.4	106	68-134	
Dibromochloromethane	ug/kg	58.1	62.3	107	71-138	
Dibromomethane	ug/kg	58.1	61.5	106	74-130	
Dichlorodifluoromethane	ug/kg	58.1	54.5	94	40-160	
Diisopropyl ether	ug/kg	58.1	66.3	114	69-141	
Ethylbenzene	ug/kg	58.1	62.7	108	75-133	
Hexachloro-1,3-butadiene	ug/kg	58.1	60.6	104	68-143	
Isopropylbenzene (Cumene)	ug/kg	58.1	67.8	117	76-143	
m&p-Xylene	ug/kg	116	126	108	75-136	
Methyl-tert-butyl ether	ug/kg	58.1	63.6	109	68-144	
Methylene Chloride	ug/kg	58.1	64.4	111	45-154	
n-Butylbenzene	ug/kg	58.1	63.7	110	72-137	
n-Propylbenzene	ug/kg	58.1	63.6	109	76-136	
Naphthalene	ug/kg	58.1	60.5	104	68-151	
o-Xylene	ug/kg	58.1	62.6	108	76-141	
p-Isopropyltoluene	ug/kg	58.1	63.3	109	76-140	
sec-Butylbenzene	ug/kg	58.1	65.9	113	79-139	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1586529

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	58.1	61.8	106	79-137	
tert-Butylbenzene	ug/kg	58.1	58.9	101	74-143	
Tetrachloroethene	ug/kg	58.1	52.3	90	71-138	
Toluene	ug/kg	58.1	61.7	106	74-131	
trans-1,2-Dichloroethene	ug/kg	58.1	64.4	111	67-135	
trans-1,3-Dichloropropene	ug/kg	58.1	62.0	107	65-146	
Trichloroethene	ug/kg	58.1	60.3	104	67-135	
Trichlorofluoromethane	ug/kg	58.1	61.2	105	59-144	
Vinyl acetate	ug/kg	116	126	108	40-160	F3
Vinyl chloride	ug/kg	58.1	60.1	103	56-141	
Xylene (Total)	ug/kg	174	188	108	76-137	
1,2-Dichloroethane-d4 (S)	%			105	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1587535

Parameter	Units	92272410003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	19.5	20.5	105	70-130	
1,1,1-Trichloroethane	ug/kg	ND	19.5	22.0	113	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	19.5	ND	0	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	19.5	20.9	107	70-130	
1,1-Dichloroethane	ug/kg	ND	19.5	21.8	112	70-130	
1,1-Dichloroethene	ug/kg	ND	19.5	23.2	119	49-180	
1,1-Dichloropropene	ug/kg	ND	19.5	21.8	112	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	19.5	15.9	81	70-130	
1,2,3-Trichloropropane	ug/kg	ND	19.5	22.6	116	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	19.5	15.8	81	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	19.5	23.7	121	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	19.5	22.7	116	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	19.5	21.3	109	70-130	
1,2-Dichlorobenzene	ug/kg	ND	19.5	21.8	112	70-130	
1,2-Dichloroethane	ug/kg	ND	19.5	22.3	114	70-130	
1,2-Dichloropropane	ug/kg	ND	19.5	21.2	109	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	19.5	24.5	125	70-130	
1,3-Dichlorobenzene	ug/kg	ND	19.5	22.3	114	70-130	
1,3-Dichloropropane	ug/kg	ND	19.5	22.1	113	70-130	
1,4-Dichlorobenzene	ug/kg	ND	19.5	22.3	114	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	390	443	113	70-130	
2,2-Dichloropropane	ug/kg	ND	19.5	20.3	104	70-130	
2-Butanone (MEK)	ug/kg	ND	39	58.0J	149	70-130	M1
2-Chlorotoluene	ug/kg	ND	19.5	24.3	125	70-130	
2-Hexanone	ug/kg	ND	39	49.8	128	70-130	
4-Chlorotoluene	ug/kg	ND	19.5	23.5	120	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	39	49.1	126	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

MATRIX SPIKE SAMPLE: 1587535

Parameter	Units	92272410003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	37.0J	39	69.3J	83	70-130	
Benzene	ug/kg	ND	19.5	22.2	114	50-166	
Bromobenzene	ug/kg	ND	19.5	23.9	122	70-130	
Bromochloromethane	ug/kg	ND	19.5	22.0	113	70-130	
Bromodichloromethane	ug/kg	ND	19.5	21.2	109	70-130	
Bromoform	ug/kg	ND	19.5	20.4	104	70-130	
Bromomethane	ug/kg	ND	19.5	24.9	128	70-130	
Carbon tetrachloride	ug/kg	ND	19.5	22.4	115	70-130	
Chlorobenzene	ug/kg	ND	19.5	21.6	111	43-169	
Chloroethane	ug/kg	ND	19.5	19.7	101	70-130	
Chloroform	ug/kg	ND	19.5	21.9	112	70-130	
Chloromethane	ug/kg	ND	19.5	22.2	114	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	19.5	22.2	114	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	19.5	19.9	102	70-130	
Dibromochloromethane	ug/kg	ND	19.5	21.2	109	70-130	
Dibromomethane	ug/kg	ND	19.5	22.7	116	70-130	
Dichlorodifluoromethane	ug/kg	ND	19.5	18.7	96	70-130	
Diisopropyl ether	ug/kg	ND	19.5	23.3	120	70-130	
Ethylbenzene	ug/kg	ND	19.5	22.3	114	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	19.5	19.3	99	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	19.5	23.8	122	70-130	
m&p-Xylene	ug/kg	ND	39	44.6	114	70-130	
Methyl-tert-butyl ether	ug/kg	ND	19.5	23.3	119	70-130	
Methylene Chloride	ug/kg	5.2J	19.5	28.2	118	70-130	
n-Butylbenzene	ug/kg	ND	19.5	23.4	120	70-130	
n-Propylbenzene	ug/kg	ND	19.5	25.3	130	70-130	
Naphthalene	ug/kg	ND	19.5	20.0	102	70-130	
o-Xylene	ug/kg	ND	19.5	21.5	110	70-130	
p-Isopropyltoluene	ug/kg	ND	19.5	23.9	123	70-130	
sec-Butylbenzene	ug/kg	ND	19.5	26.2	134	70-130	M1
Styrene	ug/kg	ND	19.5	21.6	111	70-130	
tert-Butylbenzene	ug/kg	ND	19.5	23.0	118	70-130	
Tetrachloroethene	ug/kg	ND	19.5	19.2	98	70-130	
Toluene	ug/kg	ND	19.5	23.1	110	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	19.5	22.6	116	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	19.5	19.6	101	70-130	
Trichloroethene	ug/kg	ND	19.5	36.7	187	49-167	M1
Trichlorofluoromethane	ug/kg	ND	19.5	16.3	84	70-130	
Vinyl acetate	ug/kg	ND	39	ND	22	70-130	M1
Vinyl chloride	ug/kg	ND	19.5	21.2	109	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-132	
4-Bromofluorobenzene (S)	%				94	70-130	
Toluene-d8 (S)	%				97	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

SAMPLE DUPLICATE: 1587440

Parameter	Units	92272178009 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	16.3J	10.4J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

SAMPLE DUPLICATE: 1587440

Parameter	Units	92272178009 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	3.3J	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	124	111	4		
4-Bromofluorobenzene (S)	%	93	95	8		
Toluene-d8 (S)	%	99	98	6		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: MSV/33889 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272410005, 92272410006, 92272410007, 92272410008, 92272410009, 92272410010, 92272410011

METHOD BLANK: 1586533 Matrix: Solid
Associated Lab Samples: 92272410005, 92272410006, 92272410007, 92272410008, 92272410009, 92272410010, 92272410011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.3	2.2	10/20/15 11:55	
1,1,1-Trichloroethane	ug/kg	ND	5.3	1.9	10/20/15 11:55	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.3	2.0	10/20/15 11:55	
1,1,2-Trichloroethane	ug/kg	ND	5.3	2.2	10/20/15 11:55	
1,1-Dichloroethane	ug/kg	ND	5.3	1.6	10/20/15 11:55	
1,1-Dichloroethene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
1,1-Dichloropropene	ug/kg	ND	5.3	1.6	10/20/15 11:55	
1,2,3-Trichlorobenzene	ug/kg	ND	5.3	2.4	10/20/15 11:55	
1,2,3-Trichloropropane	ug/kg	ND	5.3	1.7	10/20/15 11:55	
1,2,4-Trichlorobenzene	ug/kg	ND	5.3	1.7	10/20/15 11:55	
1,2,4-Trimethylbenzene	ug/kg	ND	5.3	2.1	10/20/15 11:55	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.3	3.8	10/20/15 11:55	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.3	1.9	10/20/15 11:55	
1,2-Dichlorobenzene	ug/kg	ND	5.3	2.0	10/20/15 11:55	
1,2-Dichloroethane	ug/kg	ND	5.3	2.4	10/20/15 11:55	
1,2-Dichloropropane	ug/kg	ND	5.3	1.8	10/20/15 11:55	
1,3,5-Trimethylbenzene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
1,3-Dichlorobenzene	ug/kg	ND	5.3	2.1	10/20/15 11:55	
1,3-Dichloropropane	ug/kg	ND	5.3	2.0	10/20/15 11:55	
1,4-Dichlorobenzene	ug/kg	ND	5.3	1.8	10/20/15 11:55	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	160	128	10/20/15 11:55	
2,2-Dichloropropane	ug/kg	ND	5.3	1.8	10/20/15 11:55	
2-Butanone (MEK)	ug/kg	ND	107	3.1	10/20/15 11:55	
2-Chlorotoluene	ug/kg	ND	5.3	1.8	10/20/15 11:55	
2-Hexanone	ug/kg	ND	53.4	4.2	10/20/15 11:55	
4-Chlorotoluene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.4	4.0	10/20/15 11:55	
Acetone	ug/kg	ND	107	10.7	10/20/15 11:55	
Benzene	ug/kg	ND	5.3	1.7	10/20/15 11:55	
Bromobenzene	ug/kg	ND	5.3	2.1	10/20/15 11:55	
Bromochloromethane	ug/kg	ND	5.3	1.8	10/20/15 11:55	
Bromodichloromethane	ug/kg	ND	5.3	2.0	10/20/15 11:55	
Bromoform	ug/kg	ND	5.3	2.5	10/20/15 11:55	
Bromomethane	ug/kg	ND	10.7	2.7	10/20/15 11:55	
Carbon tetrachloride	ug/kg	ND	5.3	2.8	10/20/15 11:55	
Chlorobenzene	ug/kg	ND	5.3	2.0	10/20/15 11:55	
Chloroethane	ug/kg	ND	10.7	2.6	10/20/15 11:55	
Chloroform	ug/kg	ND	5.3	1.7	10/20/15 11:55	
Chloromethane	ug/kg	ND	10.7	2.6	10/20/15 11:55	
cis-1,2-Dichloroethene	ug/kg	ND	5.3	1.5	10/20/15 11:55	
cis-1,3-Dichloropropene	ug/kg	ND	5.3	1.9	10/20/15 11:55	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

METHOD BLANK: 1586533 Matrix: Solid
Associated Lab Samples: 92272410005, 92272410006, 92272410007, 92272410008, 92272410009, 92272410010, 92272410011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.3	1.9	10/20/15 11:55	
Dibromomethane	ug/kg	ND	5.3	2.7	10/20/15 11:55	
Dichlorodifluoromethane	ug/kg	ND	10.7	3.8	10/20/15 11:55	
Diisopropyl ether	ug/kg	ND	5.3	1.8	10/20/15 11:55	
Ethylbenzene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
Hexachloro-1,3-butadiene	ug/kg	ND	5.3	2.1	10/20/15 11:55	
Isopropylbenzene (Cumene)	ug/kg	ND	5.3	2.0	10/20/15 11:55	
m&p-Xylene	ug/kg	ND	10.7	3.8	10/20/15 11:55	
Methyl-tert-butyl ether	ug/kg	ND	5.3	1.6	10/20/15 11:55	
Methylene Chloride	ug/kg	ND	21.4	3.2	10/20/15 11:55	
n-Butylbenzene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
n-Propylbenzene	ug/kg	ND	5.3	1.8	10/20/15 11:55	
Naphthalene	ug/kg	1.9J	5.3	1.3	10/20/15 11:55	
o-Xylene	ug/kg	ND	5.3	2.0	10/20/15 11:55	
p-Isopropyltoluene	ug/kg	ND	5.3	1.8	10/20/15 11:55	
sec-Butylbenzene	ug/kg	ND	5.3	1.7	10/20/15 11:55	
Styrene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
tert-Butylbenzene	ug/kg	ND	5.3	2.1	10/20/15 11:55	
Tetrachloroethene	ug/kg	ND	5.3	1.8	10/20/15 11:55	
Toluene	ug/kg	ND	5.3	1.9	10/20/15 11:55	
trans-1,2-Dichloroethene	ug/kg	ND	5.3	2.0	10/20/15 11:55	
trans-1,3-Dichloropropene	ug/kg	ND	5.3	1.6	10/20/15 11:55	
Trichloroethene	ug/kg	ND	5.3	2.2	10/20/15 11:55	
Trichlorofluoromethane	ug/kg	ND	5.3	2.4	10/20/15 11:55	
Vinyl acetate	ug/kg	ND	53.4	9.4	10/20/15 11:55	
Vinyl chloride	ug/kg	ND	10.7	1.9	10/20/15 11:55	
Xylene (Total)	ug/kg	ND	10.7	3.8	10/20/15 11:55	
1,2-Dichloroethane-d4 (S)	%	106	70-132		10/20/15 11:55	
4-Bromofluorobenzene (S)	%	100	70-130		10/20/15 11:55	
Toluene-d8 (S)	%	99	70-130		10/20/15 11:55	

LABORATORY CONTROL SAMPLE: 1586534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	57.2	72.8	127	74-137	
1,1,1-Trichloroethane	ug/kg	57.2	64.7	113	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	57.2	71.0	124	72-141	
1,1,2-Trichloroethane	ug/kg	57.2	71.1	124	78-138	
1,1-Dichloroethane	ug/kg	57.2	63.4	111	69-134	
1,1-Dichloroethene	ug/kg	57.2	66.1	116	67-138	
1,1-Dichloropropene	ug/kg	57.2	62.2	109	69-139	
1,2,3-Trichlorobenzene	ug/kg	57.2	68.6	120	70-146	
1,2,3-Trichloropropane	ug/kg	57.2	75.3	132	69-144	
1,2,4-Trichlorobenzene	ug/kg	57.2	64.8	113	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1586534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	57.2	69.7	122	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	57.2	77.8	136	65-140	
1,2-Dibromoethane (EDB)	ug/kg	57.2	72.3	126	77-135	
1,2-Dichlorobenzene	ug/kg	57.2	71.3	125	77-141	
1,2-Dichloroethane	ug/kg	57.2	64.0	112	65-137	
1,2-Dichloropropane	ug/kg	57.2	65.3	114	72-136	
1,3,5-Trimethylbenzene	ug/kg	57.2	70.6	123	76-133	
1,3-Dichlorobenzene	ug/kg	57.2	70.8	124	74-138	
1,3-Dichloropropane	ug/kg	57.2	71.9	126	71-139	
1,4-Dichlorobenzene	ug/kg	57.2	71.0	124	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1140	1420	124	54-154	
2,2-Dichloropropane	ug/kg	57.2	65.2	114	68-137	
2-Butanone (MEK)	ug/kg	114	152	133	58-147	
2-Chlorotoluene	ug/kg	57.2	62.2	109	73-139	
2-Hexanone	ug/kg	114	177	154	62-145	L0
4-Chlorotoluene	ug/kg	57.2	69.6	122	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	114	169	148	64-149	
Acetone	ug/kg	114	135	118	53-153	
Benzene	ug/kg	57.2	63.8	111	73-135	
Bromobenzene	ug/kg	57.2	70.5	123	75-133	
Bromochloromethane	ug/kg	57.2	66.8	117	73-134	
Bromodichloromethane	ug/kg	57.2	70.3	123	71-135	
Bromoform	ug/kg	57.2	78.8	138	66-141	
Bromomethane	ug/kg	57.2	63.2	110	53-160	
Carbon tetrachloride	ug/kg	57.2	69.3	121	60-145	
Chlorobenzene	ug/kg	57.2	68.2	119	78-130	
Chloroethane	ug/kg	57.2	55.7	97	64-149	
Chloroform	ug/kg	57.2	64.6	113	70-134	
Chloromethane	ug/kg	57.2	61.7	108	52-150	
cis-1,2-Dichloroethene	ug/kg	57.2	62.8	110	70-133	
cis-1,3-Dichloropropene	ug/kg	57.2	69.3	121	68-134	
Dibromochloromethane	ug/kg	57.2	76.0	133	71-138	
Dibromomethane	ug/kg	57.2	69.9	122	74-130	
Dichlorodifluoromethane	ug/kg	57.2	51.5	90	40-160	
Diisopropyl ether	ug/kg	57.2	69.2	121	69-141	
Ethylbenzene	ug/kg	57.2	69.0	121	75-133	
Hexachloro-1,3-butadiene	ug/kg	57.2	65.4	114	68-143	
Isopropylbenzene (Cumene)	ug/kg	57.2	76.3	133	76-143	
m&p-Xylene	ug/kg	114	138	121	75-136	
Methyl-tert-butyl ether	ug/kg	57.2	69.8	122	68-144	
Methylene Chloride	ug/kg	57.2	64.4	113	45-154	
n-Butylbenzene	ug/kg	57.2	69.8	122	72-137	
n-Propylbenzene	ug/kg	57.2	68.2	119	76-136	
Naphthalene	ug/kg	57.2	74.6	130	68-151	
o-Xylene	ug/kg	57.2	69.2	121	76-141	
p-Isopropyltoluene	ug/kg	57.2	69.8	122	76-140	
sec-Butylbenzene	ug/kg	57.2	72.8	127	79-139	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1586534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	57.2	70.2	123	79-137	
tert-Butylbenzene	ug/kg	57.2	65.6	115	74-143	
Tetrachloroethene	ug/kg	57.2	53.3	93	71-138	
Toluene	ug/kg	57.2	66.1	116	74-131	
trans-1,2-Dichloroethene	ug/kg	57.2	64.3	112	67-135	
trans-1,3-Dichloropropene	ug/kg	57.2	71.9	126	65-146	
Trichloroethene	ug/kg	57.2	66.3	116	67-135	
Trichlorofluoromethane	ug/kg	57.2	59.2	103	59-144	
Vinyl acetate	ug/kg	114	94.2	82	40-160	F3
Vinyl chloride	ug/kg	57.2	59.1	103	56-141	
Xylene (Total)	ug/kg	172	207	121	76-137	
1,2-Dichloroethane-d4 (S)	%			108	70-132	
4-Bromofluorobenzene (S)	%			105	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1587446

Parameter	Units	92272410006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	28.6	33.7	118	70-130	
1,1,1-Trichloroethane	ug/kg	ND	28.6	35.2	123	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	28.6	35.8	125	70-130	
1,1,2-Trichloroethane	ug/kg	ND	28.6	32.7	114	70-130	
1,1-Dichloroethane	ug/kg	ND	28.6	36.1	126	70-130	
1,1-Dichloroethene	ug/kg	ND	28.6	37.4	131	49-180	
1,1-Dichloropropene	ug/kg	ND	28.6	35.3	123	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	28.6	26.6	93	70-130	
1,2,3-Trichloropropane	ug/kg	ND	28.6	35.3	123	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	28.6	26.9	94	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	28.6	34.6	121	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	28.6	34.0	119	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	28.6	35.1	122	70-130	
1,2-Dichlorobenzene	ug/kg	ND	28.6	32.1	112	70-130	
1,2-Dichloroethane	ug/kg	ND	28.6	35.8	125	70-130	
1,2-Dichloropropane	ug/kg	ND	28.6	33.7	118	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	28.6	35.6	124	70-130	
1,3-Dichlorobenzene	ug/kg	ND	28.6	32.9	115	70-130	
1,3-Dichloropropane	ug/kg	ND	28.6	33.9	118	70-130	
1,4-Dichlorobenzene	ug/kg	ND	28.6	32.6	113	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	572	796	139	70-130	M1
2,2-Dichloropropane	ug/kg	ND	28.6	33.4	117	70-130	
2-Butanone (MEK)	ug/kg	ND	57.2	83.2J	145	70-130	M1
2-Chlorotoluene	ug/kg	ND	28.6	34.8	122	70-130	
2-Hexanone	ug/kg	ND	57.2	72.8	127	70-130	
4-Chlorotoluene	ug/kg	ND	28.6	34.1	119	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	57.2	77.3	135	70-130	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

MATRIX SPIKE SAMPLE: 1587446

Parameter	Units	92272410006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	36.2J	57.2	90.7J	95	70-130	
Benzene	ug/kg	ND	28.6	35.4	124	50-166	
Bromobenzene	ug/kg	ND	28.6	34.6	121	70-130	
Bromochloromethane	ug/kg	ND	28.6	36.3	127	70-130	
Bromodichloromethane	ug/kg	ND	28.6	33.5	117	70-130	
Bromoform	ug/kg	ND	28.6	31.2	109	70-130	
Bromomethane	ug/kg	ND	28.6	39.3	137	70-130	M1
Carbon tetrachloride	ug/kg	ND	28.6	36.1	126	70-130	
Chlorobenzene	ug/kg	ND	28.6	32.9	115	43-169	
Chloroethane	ug/kg	ND	28.6	33.9	118	70-130	
Chloroform	ug/kg	ND	28.6	35.1	123	70-130	
Chloromethane	ug/kg	ND	28.6	35.4	124	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	28.6	35.8	125	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	28.6	32.6	114	70-130	
Dibromochloromethane	ug/kg	ND	28.6	33.5	117	70-130	
Dibromomethane	ug/kg	ND	28.6	36.5	127	70-130	
Dichlorodifluoromethane	ug/kg	ND	28.6	30.2	106	70-130	
Diisopropyl ether	ug/kg	ND	28.6	38.0	133	70-130	M1
Ethylbenzene	ug/kg	ND	28.6	34.9	122	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	28.6	31.2	109	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	28.6	37.8	132	70-130	M1
m&p-Xylene	ug/kg	ND	57.2	69.6	122	70-130	
Methyl-tert-butyl ether	ug/kg	ND	28.6	37.0	129	70-130	
Methylene Chloride	ug/kg	9.5J	28.6	48.1	135	70-130	M1
n-Butylbenzene	ug/kg	ND	28.6	34.9	122	70-130	
n-Propylbenzene	ug/kg	ND	28.6	36.7	128	70-130	
Naphthalene	ug/kg	ND	28.6	30.6	107	70-130	
o-Xylene	ug/kg	ND	28.6	33.9	119	70-130	
p-Isopropyltoluene	ug/kg	ND	28.6	35.4	124	70-130	
sec-Butylbenzene	ug/kg	ND	28.6	37.7	132	70-130	M1
Styrene	ug/kg	ND	28.6	32.7	114	70-130	
tert-Butylbenzene	ug/kg	ND	28.6	33.1	116	70-130	
Tetrachloroethene	ug/kg	ND	28.6	29.1	102	70-130	
Toluene	ug/kg	ND	28.6	36.5	123	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	28.6	37.8	132	70-130	M1
trans-1,3-Dichloropropene	ug/kg	ND	28.6	31.2	109	70-130	
Trichloroethene	ug/kg	ND	28.6	32.5	114	49-167	
Trichlorofluoromethane	ug/kg	ND	28.6	35.8	125	70-130	
Vinyl acetate	ug/kg	ND	57.2	61.3J	107	70-130	
Vinyl chloride	ug/kg	ND	28.6	33.9	118	70-130	
1,2-Dichloroethane-d4 (S)	%				115	70-132	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

SAMPLE DUPLICATE: 1587445

Parameter	Units	92272410005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	32.1J	54.3J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

SAMPLE DUPLICATE: 1587445

Parameter	Units	92272410005 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	9.0J	7.2J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	1.6J		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	116	123	1		
4-Bromofluorobenzene (S)	%	95	99	2		
Toluene-d8 (S)	%	100	99	8		1g

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: MSV/33902 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272410012, 92272410013, 92272410014, 92272410015, 92272410016, 92272410017, 92272410018, 92272410019, 92272410020, 92272410021, 92272410022, 92272410023, 92272410024

METHOD BLANK: 1587568 Matrix: Solid
Associated Lab Samples: 92272410012, 92272410013, 92272410014, 92272410015, 92272410016, 92272410017, 92272410018, 92272410019, 92272410020, 92272410021, 92272410022, 92272410023, 92272410024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.3	2.2	10/21/15 12:25	
1,1,1-Trichloroethane	ug/kg	ND	5.3	1.9	10/21/15 12:25	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.3	2.0	10/21/15 12:25	
1,1,2-Trichloroethane	ug/kg	ND	5.3	2.2	10/21/15 12:25	
1,1-Dichloroethane	ug/kg	ND	5.3	1.6	10/21/15 12:25	
1,1-Dichloroethene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
1,1-Dichloropropene	ug/kg	ND	5.3	1.6	10/21/15 12:25	
1,2,3-Trichlorobenzene	ug/kg	ND	5.3	2.3	10/21/15 12:25	
1,2,3-Trichloropropane	ug/kg	ND	5.3	1.7	10/21/15 12:25	
1,2,4-Trichlorobenzene	ug/kg	ND	5.3	1.7	10/21/15 12:25	
1,2,4-Trimethylbenzene	ug/kg	ND	5.3	2.1	10/21/15 12:25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.3	3.8	10/21/15 12:25	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.3	1.9	10/21/15 12:25	
1,2-Dichlorobenzene	ug/kg	ND	5.3	2.0	10/21/15 12:25	
1,2-Dichloroethane	ug/kg	ND	5.3	2.3	10/21/15 12:25	
1,2-Dichloropropane	ug/kg	ND	5.3	1.8	10/21/15 12:25	
1,3,5-Trimethylbenzene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
1,3-Dichlorobenzene	ug/kg	ND	5.3	2.1	10/21/15 12:25	
1,3-Dichloropropane	ug/kg	ND	5.3	2.0	10/21/15 12:25	
1,4-Dichlorobenzene	ug/kg	ND	5.3	1.8	10/21/15 12:25	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	160	128	10/21/15 12:25	
2,2-Dichloropropane	ug/kg	ND	5.3	1.8	10/21/15 12:25	
2-Butanone (MEK)	ug/kg	ND	107	3.1	10/21/15 12:25	
2-Chlorotoluene	ug/kg	ND	5.3	1.8	10/21/15 12:25	
2-Hexanone	ug/kg	ND	53.3	4.2	10/21/15 12:25	
4-Chlorotoluene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.3	3.9	10/21/15 12:25	
Acetone	ug/kg	ND	107	10.7	10/21/15 12:25	
Benzene	ug/kg	ND	5.3	1.7	10/21/15 12:25	
Bromobenzene	ug/kg	ND	5.3	2.1	10/21/15 12:25	
Bromochloromethane	ug/kg	ND	5.3	1.8	10/21/15 12:25	
Bromodichloromethane	ug/kg	ND	5.3	2.0	10/21/15 12:25	
Bromoform	ug/kg	ND	5.3	2.5	10/21/15 12:25	
Bromomethane	ug/kg	ND	10.7	2.7	10/21/15 12:25	
Carbon tetrachloride	ug/kg	ND	5.3	2.8	10/21/15 12:25	
Chlorobenzene	ug/kg	ND	5.3	2.0	10/21/15 12:25	
Chloroethane	ug/kg	ND	10.7	2.6	10/21/15 12:25	
Chloroform	ug/kg	ND	5.3	1.7	10/21/15 12:25	
Chloromethane	ug/kg	ND	10.7	2.6	10/21/15 12:25	
cis-1,2-Dichloroethene	ug/kg	ND	5.3	1.5	10/21/15 12:25	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

METHOD BLANK: 1587568 Matrix: Solid

Associated Lab Samples: 92272410012, 92272410013, 92272410014, 92272410015, 92272410016, 92272410017, 92272410018, 92272410019, 92272410020, 92272410021, 92272410022, 92272410023, 92272410024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
Dibromochloromethane	ug/kg	ND	5.3	1.9	10/21/15 12:25	
Dibromomethane	ug/kg	ND	5.3	2.7	10/21/15 12:25	
Dichlorodifluoromethane	ug/kg	ND	10.7	3.8	10/21/15 12:25	
Diisopropyl ether	ug/kg	ND	5.3	1.8	10/21/15 12:25	
Ethylbenzene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
Hexachloro-1,3-butadiene	ug/kg	ND	5.3	2.1	10/21/15 12:25	
Isopropylbenzene (Cumene)	ug/kg	ND	5.3	2.0	10/21/15 12:25	
m&p-Xylene	ug/kg	ND	10.7	3.8	10/21/15 12:25	
Methyl-tert-butyl ether	ug/kg	ND	5.3	1.6	10/21/15 12:25	
Methylene Chloride	ug/kg	ND	21.3	3.2	10/21/15 12:25	
n-Butylbenzene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
n-Propylbenzene	ug/kg	ND	5.3	1.8	10/21/15 12:25	
Naphthalene	ug/kg	ND	5.3	1.3	10/21/15 12:25	
o-Xylene	ug/kg	ND	5.3	2.0	10/21/15 12:25	
p-Isopropyltoluene	ug/kg	ND	5.3	1.8	10/21/15 12:25	
sec-Butylbenzene	ug/kg	ND	5.3	1.7	10/21/15 12:25	
Styrene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
tert-Butylbenzene	ug/kg	ND	5.3	2.1	10/21/15 12:25	
Tetrachloroethene	ug/kg	ND	5.3	1.8	10/21/15 12:25	
Toluene	ug/kg	ND	5.3	1.9	10/21/15 12:25	
trans-1,2-Dichloroethene	ug/kg	ND	5.3	2.0	10/21/15 12:25	
trans-1,3-Dichloropropene	ug/kg	ND	5.3	1.6	10/21/15 12:25	
Trichloroethene	ug/kg	ND	5.3	2.2	10/21/15 12:25	
Trichlorofluoromethane	ug/kg	ND	5.3	2.3	10/21/15 12:25	
Vinyl acetate	ug/kg	ND	53.3	9.4	10/21/15 12:25	
Vinyl chloride	ug/kg	ND	10.7	1.9	10/21/15 12:25	
Xylene (Total)	ug/kg	ND	10.7	3.8	10/21/15 12:25	
1,2-Dichloroethane-d4 (S)	%	109	70-132		10/21/15 12:25	
4-Bromofluorobenzene (S)	%	96	70-130		10/21/15 12:25	
Toluene-d8 (S)	%	100	70-130		10/21/15 12:25	

LABORATORY CONTROL SAMPLE: 1587569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	52.2	53.8	103	74-137	
1,1,1-Trichloroethane	ug/kg	52.2	54.2	104	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	52.2	47.0	90	72-141	
1,1,2-Trichloroethane	ug/kg	52.2	50.0	96	78-138	
1,1-Dichloroethane	ug/kg	52.2	54.0	103	69-134	
1,1-Dichloroethene	ug/kg	52.2	55.4	106	67-138	
1,1-Dichloropropene	ug/kg	52.2	53.0	102	69-139	
1,2,3-Trichlorobenzene	ug/kg	52.2	48.5	93	70-146	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1587569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	52.2	53.1	102	69-144	
1,2,4-Trichlorobenzene	ug/kg	52.2	46.5	89	68-148	
1,2,4-Trimethylbenzene	ug/kg	52.2	52.5	101	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	52.2	54.1	104	65-140	
1,2-Dibromoethane (EDB)	ug/kg	52.2	54.9	105	77-135	
1,2-Dichlorobenzene	ug/kg	52.2	50.8	97	77-141	
1,2-Dichloroethane	ug/kg	52.2	52.2	100	65-137	
1,2-Dichloropropane	ug/kg	52.2	52.1	100	72-136	
1,3,5-Trimethylbenzene	ug/kg	52.2	53.0	102	76-133	
1,3-Dichlorobenzene	ug/kg	52.2	51.2	98	74-138	
1,3-Dichloropropane	ug/kg	52.2	52.7	101	71-139	
1,4-Dichlorobenzene	ug/kg	52.2	50.1	96	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1040	1080	104	54-154	
2,2-Dichloropropane	ug/kg	52.2	54.2	104	68-137	
2-Butanone (MEK)	ug/kg	104	111	106	58-147	
2-Chlorotoluene	ug/kg	52.2	51.6	99	73-139	
2-Hexanone	ug/kg	104	117	112	62-145	
4-Chlorotoluene	ug/kg	52.2	51.5	99	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	104	116	111	64-149	
Acetone	ug/kg	104	105	101	53-153	
Benzene	ug/kg	52.2	54.2	104	73-135	
Bromobenzene	ug/kg	52.2	50.7	97	75-133	
Bromochloromethane	ug/kg	52.2	52.1	100	73-134	
Bromodichloromethane	ug/kg	52.2	53.3	102	71-135	
Bromoform	ug/kg	52.2	54.2	104	66-141	
Bromomethane	ug/kg	52.2	55.9	107	53-160	
Carbon tetrachloride	ug/kg	52.2	57.9	111	60-145	
Chlorobenzene	ug/kg	52.2	52.0	100	78-130	
Chloroethane	ug/kg	52.2	49.3	95	64-149	
Chloroform	ug/kg	52.2	53.3	102	70-134	
Chloromethane	ug/kg	52.2	55.9	107	52-150	
cis-1,2-Dichloroethene	ug/kg	52.2	53.7	103	70-133	
cis-1,3-Dichloropropene	ug/kg	52.2	52.5	101	68-134	
Dibromochloromethane	ug/kg	52.2	54.8	105	71-138	
Dibromomethane	ug/kg	52.2	53.7	103	74-130	
Dichlorodifluoromethane	ug/kg	52.2	47.3	91	40-160	
Diisopropyl ether	ug/kg	52.2	58.2	111	69-141	
Ethylbenzene	ug/kg	52.2	53.2	102	75-133	
Hexachloro-1,3-butadiene	ug/kg	52.2	47.6	91	68-143	
Isopropylbenzene (Cumene)	ug/kg	52.2	57.9	111	76-143	
m&p-Xylene	ug/kg	104	107	102	75-136	
Methyl-tert-butyl ether	ug/kg	52.2	55.4	106	68-144	
Methylene Chloride	ug/kg	52.2	55.2	106	45-154	
n-Butylbenzene	ug/kg	52.2	50.9	97	72-137	
n-Propylbenzene	ug/kg	52.2	53.1	102	76-136	
Naphthalene	ug/kg	52.2	51.0	98	68-151	
o-Xylene	ug/kg	52.2	53.3	102	76-141	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1587569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	52.2	51.6	99	76-140	
sec-Butylbenzene	ug/kg	52.2	54.8	105	79-139	
Styrene	ug/kg	52.2	52.4	100	79-137	
tert-Butylbenzene	ug/kg	52.2	48.6	93	74-143	
Tetrachloroethene	ug/kg	52.2	43.6	84	71-138	
Toluene	ug/kg	52.2	53.6	103	74-131	
trans-1,2-Dichloroethene	ug/kg	52.2	54.0	103	67-135	
trans-1,3-Dichloropropene	ug/kg	52.2	52.2	100	65-146	
Trichloroethene	ug/kg	52.2	56.0	107	67-135	
Trichlorofluoromethane	ug/kg	52.2	51.0	98	59-144	
Vinyl acetate	ug/kg	104	56.3	54	40-160	F3
Vinyl chloride	ug/kg	52.2	52.5	101	56-141	
Xylene (Total)	ug/kg	157	160	102	76-137	
1,2-Dichloroethane-d4 (S)	%			103	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1588709

Parameter	Units	92272410014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	21.9	23.6	108	70-130	
1,1,1-Trichloroethane	ug/kg	ND	21.9	26.0	119	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	21.9	23.7	108	70-130	
1,1,2-Trichloroethane	ug/kg	ND	21.9	22.5	103	70-130	
1,1-Dichloroethane	ug/kg	ND	21.9	26.3	120	70-130	
1,1-Dichloroethene	ug/kg	ND	21.9	27.9	127	49-180	
1,1-Dichloropropene	ug/kg	ND	21.9	26.0	119	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	21.9	15.0	68	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	21.9	22.3	102	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	21.9	16.4	75	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	21.9	28.0	128	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	21.9	24.7	113	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	21.9	25.1	114	70-130	
1,2-Dichlorobenzene	ug/kg	ND	21.9	22.3	102	70-130	
1,2-Dichloroethane	ug/kg	ND	21.9	25.0	114	70-130	
1,2-Dichloropropane	ug/kg	ND	21.9	23.8	109	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	21.9	29.5	135	70-130	M1
1,3-Dichlorobenzene	ug/kg	ND	21.9	23.8	108	70-130	
1,3-Dichloropropane	ug/kg	ND	21.9	24.7	113	70-130	
1,4-Dichlorobenzene	ug/kg	ND	21.9	25.7	113	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	438	645	147	70-130	M1
2,2-Dichloropropane	ug/kg	ND	21.9	25.3	115	70-130	
2-Butanone (MEK)	ug/kg	ND	43.8	65.3J	149	70-130	M1
2-Chlorotoluene	ug/kg	ND	21.9	28.1	128	70-130	
2-Hexanone	ug/kg	ND	43.8	53.6J	122	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

MATRIX SPIKE SAMPLE: 1588709

Parameter	Units	92272410014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/kg	ND	21.9	27.0	123	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	43.8	53.9J	123	70-130	
Acetone	ug/kg	32.1J	43.8	86.6J	124	70-130	
Benzene	ug/kg	ND	21.9	25.8	118	50-166	
Bromobenzene	ug/kg	ND	21.9	27.0	123	70-130	
Bromochloromethane	ug/kg	ND	21.9	25.3	116	70-130	
Bromodichloromethane	ug/kg	ND	21.9	23.5	107	70-130	
Bromoform	ug/kg	ND	21.9	21.1	96	70-130	
Bromomethane	ug/kg	ND	21.9	28.7	131	70-130	M1
Carbon tetrachloride	ug/kg	ND	21.9	26.9	123	70-130	
Chlorobenzene	ug/kg	ND	21.9	23.5	107	43-169	
Chloroethane	ug/kg	ND	21.9	25.0	114	70-130	
Chloroform	ug/kg	ND	21.9	25.2	115	70-130	
Chloromethane	ug/kg	ND	21.9	26.9	123	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	21.9	26.3	117	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	21.9	22.5	103	70-130	
Dibromochloromethane	ug/kg	ND	21.9	23.6	108	70-130	
Dibromomethane	ug/kg	ND	21.9	24.7	113	70-130	
Dichlorodifluoromethane	ug/kg	ND	21.9	24.0	109	70-130	
Diisopropyl ether	ug/kg	ND	21.9	27.8	127	70-130	
Ethylbenzene	ug/kg	ND	21.9	26.1	119	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	21.9	25.5	116	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	21.9	28.2	129	70-130	
m&p-Xylene	ug/kg	ND	43.8	52.5	119	70-130	
Methyl-tert-butyl ether	ug/kg	ND	21.9	26.0	119	70-130	
Methylene Chloride	ug/kg	5.5J	21.9	35.4	136	70-130	M1
n-Butylbenzene	ug/kg	ND	21.9	29.0	132	70-130	M1
n-Propylbenzene	ug/kg	ND	21.9	31.4	143	70-130	M1
Naphthalene	ug/kg	ND	21.9	17.6	80	70-130	
o-Xylene	ug/kg	ND	21.9	24.6	112	70-130	
p-Isopropyltoluene	ug/kg	ND	21.9	30.2	138	70-130	M1
sec-Butylbenzene	ug/kg	ND	21.9	33.1	151	70-130	M1
Styrene	ug/kg	ND	21.9	22.2	101	70-130	
tert-Butylbenzene	ug/kg	ND	21.9	28.3	129	70-130	
Tetrachloroethene	ug/kg	ND	21.9	26.5	118	70-130	
Toluene	ug/kg	ND	21.9	26.6	114	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	21.9	26.9	123	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	21.9	21.2	97	70-130	
Trichloroethene	ug/kg	ND	21.9	32.6	142	49-167	
Trichlorofluoromethane	ug/kg	ND	21.9	24.4	111	70-130	
Vinyl acetate	ug/kg	ND	43.8	44.0J	100	70-130	
Vinyl chloride	ug/kg	ND	21.9	25.5	116	70-130	
1,2-Dichloroethane-d4 (S)	%				110	70-132	
4-Bromofluorobenzene (S)	%				96	70-130	
Toluene-d8 (S)	%				98	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

SAMPLE DUPLICATE: 1588708

Parameter	Units	92272410013 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	19.6J	19.8J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

SAMPLE DUPLICATE: 1588708

Parameter	Units	92272410013 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	8.0J	5.5J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	112	116	4		
4-Bromofluorobenzene (S)	%	99	99	7		
Toluene-d8 (S)	%	99	99	8		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: MSV/33905 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272410025, 92272410026

METHOD BLANK: 1587603 | Matrix: Solid
Associated Lab Samples: 92272410025, 92272410026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.3	2.2	10/21/15 12:05	
1,1,1-Trichloroethane	ug/kg	ND	5.3	1.9	10/21/15 12:05	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.3	2.0	10/21/15 12:05	
1,1,2-Trichloroethane	ug/kg	ND	5.3	2.2	10/21/15 12:05	
1,1-Dichloroethane	ug/kg	ND	5.3	1.6	10/21/15 12:05	
1,1-Dichloroethene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
1,1-Dichloropropene	ug/kg	ND	5.3	1.6	10/21/15 12:05	
1,2,3-Trichlorobenzene	ug/kg	ND	5.3	2.3	10/21/15 12:05	
1,2,3-Trichloropropane	ug/kg	ND	5.3	1.7	10/21/15 12:05	
1,2,4-Trichlorobenzene	ug/kg	ND	5.3	1.7	10/21/15 12:05	
1,2,4-Trimethylbenzene	ug/kg	ND	5.3	2.1	10/21/15 12:05	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.3	3.8	10/21/15 12:05	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.3	1.9	10/21/15 12:05	
1,2-Dichlorobenzene	ug/kg	ND	5.3	2.0	10/21/15 12:05	
1,2-Dichloroethane	ug/kg	ND	5.3	2.3	10/21/15 12:05	
1,2-Dichloropropane	ug/kg	ND	5.3	1.8	10/21/15 12:05	
1,3,5-Trimethylbenzene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
1,3-Dichlorobenzene	ug/kg	ND	5.3	2.1	10/21/15 12:05	
1,3-Dichloropropane	ug/kg	ND	5.3	2.0	10/21/15 12:05	
1,4-Dichlorobenzene	ug/kg	ND	5.3	1.8	10/21/15 12:05	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	159	127	10/21/15 12:05	
2,2-Dichloropropane	ug/kg	ND	5.3	1.8	10/21/15 12:05	
2-Butanone (MEK)	ug/kg	ND	106	3.1	10/21/15 12:05	
2-Chlorotoluene	ug/kg	ND	5.3	1.8	10/21/15 12:05	
2-Hexanone	ug/kg	ND	53.0	4.1	10/21/15 12:05	
4-Chlorotoluene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.0	3.9	10/21/15 12:05	
Acetone	ug/kg	ND	106	10.6	10/21/15 12:05	
Benzene	ug/kg	ND	5.3	1.7	10/21/15 12:05	
Bromobenzene	ug/kg	ND	5.3	2.1	10/21/15 12:05	
Bromochloromethane	ug/kg	ND	5.3	1.8	10/21/15 12:05	
Bromodichloromethane	ug/kg	ND	5.3	2.0	10/21/15 12:05	
Bromoform	ug/kg	ND	5.3	2.4	10/21/15 12:05	
Bromomethane	ug/kg	ND	10.6	2.6	10/21/15 12:05	
Carbon tetrachloride	ug/kg	ND	5.3	2.8	10/21/15 12:05	
Chlorobenzene	ug/kg	ND	5.3	2.0	10/21/15 12:05	
Chloroethane	ug/kg	ND	10.6	2.5	10/21/15 12:05	
Chloroform	ug/kg	ND	5.3	1.7	10/21/15 12:05	
Chloromethane	ug/kg	ND	10.6	2.5	10/21/15 12:05	
cis-1,2-Dichloroethene	ug/kg	ND	5.3	1.5	10/21/15 12:05	
cis-1,3-Dichloropropene	ug/kg	ND	5.3	1.9	10/21/15 12:05	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

METHOD BLANK: 1587603 Matrix: Solid
Associated Lab Samples: 92272410025, 92272410026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.3	1.9	10/21/15 12:05	
Dibromomethane	ug/kg	ND	5.3	2.6	10/21/15 12:05	
Dichlorodifluoromethane	ug/kg	ND	10.6	3.8	10/21/15 12:05	
Diisopropyl ether	ug/kg	ND	5.3	1.8	10/21/15 12:05	
Ethylbenzene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
Hexachloro-1,3-butadiene	ug/kg	ND	5.3	2.1	10/21/15 12:05	
Isopropylbenzene (Cumene)	ug/kg	ND	5.3	2.0	10/21/15 12:05	
m&p-Xylene	ug/kg	ND	10.6	3.8	10/21/15 12:05	
Methyl-tert-butyl ether	ug/kg	ND	5.3	1.6	10/21/15 12:05	
Methylene Chloride	ug/kg	ND	21.2	3.2	10/21/15 12:05	
n-Butylbenzene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
n-Propylbenzene	ug/kg	ND	5.3	1.8	10/21/15 12:05	
Naphthalene	ug/kg	1.5J	5.3	1.3	10/21/15 12:05	
o-Xylene	ug/kg	ND	5.3	2.0	10/21/15 12:05	
p-Isopropyltoluene	ug/kg	ND	5.3	1.8	10/21/15 12:05	
sec-Butylbenzene	ug/kg	ND	5.3	1.7	10/21/15 12:05	
Styrene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
tert-Butylbenzene	ug/kg	ND	5.3	2.1	10/21/15 12:05	
Tetrachloroethene	ug/kg	ND	5.3	1.8	10/21/15 12:05	
Toluene	ug/kg	ND	5.3	1.9	10/21/15 12:05	
trans-1,2-Dichloroethene	ug/kg	ND	5.3	2.0	10/21/15 12:05	
trans-1,3-Dichloropropene	ug/kg	ND	5.3	1.6	10/21/15 12:05	
Trichloroethene	ug/kg	ND	5.3	2.2	10/21/15 12:05	
Trichlorofluoromethane	ug/kg	ND	5.3	2.3	10/21/15 12:05	
Vinyl acetate	ug/kg	ND	53.0	9.3	10/21/15 12:05	
Vinyl chloride	ug/kg	ND	10.6	1.9	10/21/15 12:05	
Xylene (Total)	ug/kg	ND	10.6	3.8	10/21/15 12:05	
1,2-Dichloroethane-d4 (S)	%	105	70-132		10/21/15 12:05	
4-Bromofluorobenzene (S)	%	97	70-130		10/21/15 12:05	
Toluene-d8 (S)	%	99	70-130		10/21/15 12:05	

LABORATORY CONTROL SAMPLE: 1587604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	47.1	50.5	107	74-137	
1,1,1-Trichloroethane	ug/kg	47.1	50.3	107	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	47.1	45.3	96	72-141	
1,1,2-Trichloroethane	ug/kg	47.1	47.3	101	78-138	
1,1-Dichloroethane	ug/kg	47.1	49.1	104	69-134	
1,1-Dichloroethene	ug/kg	47.1	49.9	106	67-138	
1,1-Dichloropropene	ug/kg	47.1	48.6	103	69-139	
1,2,3-Trichlorobenzene	ug/kg	47.1	46.0	98	70-146	
1,2,3-Trichloropropane	ug/kg	47.1	49.9	106	69-144	
1,2,4-Trichlorobenzene	ug/kg	47.1	44.9	95	68-148	

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1587604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	47.1	49.1	104	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	47.1	48.4	103	65-140	
1,2-Dibromoethane (EDB)	ug/kg	47.1	50.3	107	77-135	
1,2-Dichlorobenzene	ug/kg	47.1	48.3	103	77-141	
1,2-Dichloroethane	ug/kg	47.1	48.9	104	65-137	
1,2-Dichloropropane	ug/kg	47.1	47.9	102	72-136	
1,3,5-Trimethylbenzene	ug/kg	47.1	49.8	106	76-133	
1,3-Dichlorobenzene	ug/kg	47.1	48.9	104	74-138	
1,3-Dichloropropane	ug/kg	47.1	49.6	105	71-139	
1,4-Dichlorobenzene	ug/kg	47.1	47.9	102	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	942	957	102	54-154	
2,2-Dichloropropane	ug/kg	47.1	49.8	106	68-137	
2-Butanone (MEK)	ug/kg	94.2	103	110	58-147	
2-Chlorotoluene	ug/kg	47.1	48.4	103	73-139	
2-Hexanone	ug/kg	94.2	111	118	62-145	
4-Chlorotoluene	ug/kg	47.1	49.1	104	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	94.2	108	115	64-149	
Acetone	ug/kg	94.2	97.8	104	53-153	
Benzene	ug/kg	47.1	50.2	107	73-135	
Bromobenzene	ug/kg	47.1	49.3	105	75-133	
Bromochloromethane	ug/kg	47.1	50.6	107	73-134	
Bromodichloromethane	ug/kg	47.1	49.7	106	71-135	
Bromoform	ug/kg	47.1	50.4	107	66-141	
Bromomethane	ug/kg	47.1	52.6	112	53-160	
Carbon tetrachloride	ug/kg	47.1	53.5	114	60-145	
Chlorobenzene	ug/kg	47.1	49.4	105	78-130	
Chloroethane	ug/kg	47.1	45.4	96	64-149	
Chloroform	ug/kg	47.1	49.1	104	70-134	
Chloromethane	ug/kg	47.1	51.9	110	52-150	
cis-1,2-Dichloroethene	ug/kg	47.1	48.7	104	70-133	
cis-1,3-Dichloropropene	ug/kg	47.1	48.7	103	68-134	
Dibromochloromethane	ug/kg	47.1	50.8	108	71-138	
Dibromomethane	ug/kg	47.1	49.1	104	74-130	
Dichlorodifluoromethane	ug/kg	47.1	43.3	92	40-160	
Diisopropyl ether	ug/kg	47.1	52.9	112	69-141	
Ethylbenzene	ug/kg	47.1	50.9	108	75-133	
Hexachloro-1,3-butadiene	ug/kg	47.1	45.8	97	68-143	
Isopropylbenzene (Cumene)	ug/kg	47.1	55.0	117	76-143	
m&p-Xylene	ug/kg	94.2	101	107	75-136	
Methyl-tert-butyl ether	ug/kg	47.1	49.9	106	68-144	
Methylene Chloride	ug/kg	47.1	51.0	108	45-154	
n-Butylbenzene	ug/kg	47.1	48.8	104	72-137	
n-Propylbenzene	ug/kg	47.1	50.3	107	76-136	
Naphthalene	ug/kg	47.1	48.2	102	68-151	
o-Xylene	ug/kg	47.1	50.3	107	76-141	
p-Isopropyltoluene	ug/kg	47.1	48.9	104	76-140	
sec-Butylbenzene	ug/kg	47.1	52.3	111	79-139	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

LABORATORY CONTROL SAMPLE: 1587604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	47.1	50.9	108	79-137	
tert-Butylbenzene	ug/kg	47.1	46.1	98	74-143	
Tetrachloroethene	ug/kg	47.1	41.3	88	71-138	
Toluene	ug/kg	47.1	49.4	105	74-131	
trans-1,2-Dichloroethene	ug/kg	47.1	50.3	107	67-135	
trans-1,3-Dichloropropene	ug/kg	47.1	49.2	104	65-146	
Trichloroethene	ug/kg	47.1	50.2	107	67-135	
Trichlorofluoromethane	ug/kg	47.1	49.8	106	59-144	
Vinyl acetate	ug/kg	94.2	69.7	74	40-160	F3
Vinyl chloride	ug/kg	47.1	48.6	103	56-141	
Xylene (Total)	ug/kg	141	152	107	76-137	
1,2-Dichloroethane-d4 (S)	%			100	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: PMST/8477 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272410021, 92272410023, 92272410024, 92272410025, 92272410026

SAMPLE DUPLICATE: 1586678

Parameter	Units	92272413001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	77.1	77.3	0	25	

SAMPLE DUPLICATE: 1586679

Parameter	Units	92272437004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.4	9.3	2	25	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

QC Batch: PMST/8478 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272410003, 92272410004, 92272410005, 92272410006, 92272410007, 92272410008, 92272410009, 92272410010, 92272410011, 92272410012, 92272410013, 92272410014, 92272410015, 92272410016, 92272410017, 92272410018, 92272410019, 92272410022

SAMPLE DUPLICATE: 1586709

Parameter	Units	92272408001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.5	16.5	0	25	

SAMPLE DUPLICATE: 1586710

Parameter	Units	92272376001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	95.4	95.2	0	25	

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QUALIFIERS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
B	Analyte was detected in the associated method blank.
F3	The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92272410001	**FB-01**	EPA 8260	MSV/33954		
92272410002	**TRIP BLANK 01**	EPA 8260	MSV/33888		
92272410003	**DS-14 (0-2)**	EPA 8260	MSV/33888		
92272410004	**DS-14 (3-5)**	EPA 8260	MSV/33888		
92272410005	**DS-14 (8-10)**	EPA 8260	MSV/33889		
92272410006	**DS-14 (13-15)**	EPA 8260	MSV/33889		
92272410007	**DS-13 (0-2)**	EPA 8260	MSV/33889		
92272410008	**DS-13 (3-5)**	EPA 8260	MSV/33889		
92272410009	**DS-13 (8-10)**	EPA 8260	MSV/33889		
92272410010	**DS-13 (13-15)**	EPA 8260	MSV/33889		
92272410011	**DS-1 (18-20)**	EPA 8260	MSV/33889		
92272410012	**DS-1 (23-25)**	EPA 8260	MSV/33902		
92272410013	**DS-1 (28-30)**	EPA 8260	MSV/33902		
92272410014	**DS-4A (18-20)**	EPA 8260	MSV/33902		
92272410015	**DS-4A (23-25)**	EPA 8260	MSV/33902		
92272410016	**DS-4A (28-30)**	EPA 8260	MSV/33902		
92272410017	**DS-3 (18-20)**	EPA 8260	MSV/33902		
92272410018	**DS-3 (23-25)**	EPA 8260	MSV/33902		
92272410019	**DS-3 (28-30)**	EPA 8260	MSV/33902		
92272410020	**TRIP BLANK 02**	EPA 8260	MSV/33902		
92272410021	**DS-10 (0-2)**	EPA 8260	MSV/33902		
92272410022	**DS-10 (3-5)**	EPA 8260	MSV/33902		
92272410023	**DS-10 (8-10)**	EPA 8260	MSV/33902		
92272410024	**DS-10 (13-15)**	EPA 8260	MSV/33902		
92272410025	**DS-6 (23-25)**	EPA 8260	MSV/33905		
92272410026	**DS-5 (18-20)**	EPA 8260	MSV/33905		
92272410003	**DS-14 (0-2)**	ASTM D2974-87	PMST/8478		
92272410004	**DS-14 (3-5)**	ASTM D2974-87	PMST/8478		
92272410005	**DS-14 (8-10)**	ASTM D2974-87	PMST/8478		
92272410006	**DS-14 (13-15)**	ASTM D2974-87	PMST/8478		
92272410007	**DS-13 (0-2)**	ASTM D2974-87	PMST/8478		
92272410008	**DS-13 (3-5)**	ASTM D2974-87	PMST/8478		
92272410009	**DS-13 (8-10)**	ASTM D2974-87	PMST/8478		
92272410010	**DS-13 (13-15)**	ASTM D2974-87	PMST/8478		
92272410011	**DS-1 (18-20)**	ASTM D2974-87	PMST/8478		
92272410012	**DS-1 (23-25)**	ASTM D2974-87	PMST/8478		
92272410013	**DS-1 (28-30)**	ASTM D2974-87	PMST/8478		
92272410014	**DS-4A (18-20)**	ASTM D2974-87	PMST/8478		
92272410015	**DS-4A (23-25)**	ASTM D2974-87	PMST/8478		
92272410016	**DS-4A (28-30)**	ASTM D2974-87	PMST/8478		
92272410017	**DS-3 (18-20)**	ASTM D2974-87	PMST/8478		
92272410018	**DS-3 (23-25)**	ASTM D2974-87	PMST/8478		
92272410019	**DS-3 (28-30)**	ASTM D2974-87	PMST/8478		
92272410021	**DS-10 (0-2)**	ASTM D2974-87	PMST/8477		
92272410022	**DS-10 (3-5)**	ASTM D2974-87	PMST/8478		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272410

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92272410023	**DS-10 (8-10)**	ASTM D2974-87	PMST/8477		
92272410024	**DS-10 (13-15)**	ASTM D2974-87	PMST/8477		
92272410025	**DS-6 (23-25)**	ASTM D2974-87	PMST/8477		
92272410026	**DS-5 (18-20)**	ASTM D2974-87	PMST/8477		

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 18, 2015 Page 1 of 2*
	Document Number: **F-CHR-CS-003-rev.16**	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC

* Page 2 of 2 is for Internal Use Only

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1402 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1402 No Correction

Corrected Cooler Temp.: 4.0 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AP 10/20/15

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☐Yes ☑No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [illegible] **Date:** 10/20/15

SRF Review: [illegible] **Date:** 10/20/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92272410

92272410

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 3

2001425

Section A Required Client Information:

Company: AMEC
Address: 37 Villa Rd
Greenville 29615
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To: Paul Johnstone
Copy To: Tim Renn
Purchase Order No.: C012504993
Project Name: RBTC - Boone
Project Number: 6251121001

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): 8260 (5035)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other - 5035	Analysis Test (Y/N)	8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272410
1	FB-01	WT	G			10-19	1200		3				X						X		001
2	Trip Blank 01	SL					1100		6								X		X		002
3	DS-14 (0-2)	SL					1310		6								X		X		003
4	DS-14 (3-5)	SL					1315		6								X		X		004
5	DS-14 (8-10)	SL					1320		6								X		X		005
6	DS 14 (13-15)	SL					1330		6								X		X		006
7	DS-13 (0-2)	SL					1240		6								X		X		007
8	DS 13 (3-5)	SL					1245		6								X		X		008
9	DS-13 (8-10)	SL					1250		6								X		X		009
10	DS-13 (13-15)	SL					1300		6								X		X		010
11	DS-1 (18-20)	SL					1325		6								X		X		011
12	DS 1 (23-25)	SL					1335		6								X		X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Mauldin	10-19-15	1630	[illegible]	10-20-15	930	4.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Lori Mauldin
SIGNATURE of SAMPLER: Lori Mauldin
DATE Signed (MM/DD/YY): 10-19-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 3

1998539

Section A Required Client Information:

Company:	AMEC
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	RBTC - Boone
Project Number:	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: 8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272410
1	DS-1 (28-30)	X	G				1340		6								X	X		013
2	DS-4A (18-20)						1255		6								X	X		014
3	DS 4A (23-25)						1300		6								X	X		015
4	DS-4A (28-30)						1310		6								X	X		016
5	DS-3 (18-20)						1345		6								X	X		017
6	DS-3 (23-25)						1350		6								X	X		018
7	DS-3 (28-30)						1400		6								X	X		019
8	Trip Blank 02						1415		6								X	X		020
9	DS-10 (0-2)						1410		6								X	X		021
10	DS-10 (3-5)						1415		6								X	X		022
11	DS-10 (8-10)						1410		6								X	X		023
12	DS-10 (B-15)						1400		6								X	X		024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Mauldin	10-19-15	1630	Fedex						
				[illegible]	10/20/15	9:30	4.0	✓	N	✓

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Mauldin

SIGNATURE of SAMPLER: Lori Mauldin — DATE Signed (MM/DD/YY): 10-19-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Page: 3 of 3

2001426

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AMEC	Report To:	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: / Fax:	Project Name: RBTC Boone	Pace Project Manager:
Requested Due Date/TAT: STD	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Y/N; Analysis Test: 8260 (535)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 535	8260 (535)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272410
1	DS-6 (23-25)	SL	G			10-19	1530		6								X	X		025
2	DS-5 (18-20)	SL	G			10-19	1530		6								X	X		026
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Mauldin	10-19-15	1630	FedEx						
				[illegible]	10-20-15	9:30	4.0	✓	✓	✓

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Mauldin

SIGNATURE of SAMPLER: Lori Mauldin — DATE Signed (MM/DD/YY): 10-19-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 26, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on October 21, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92272696001	**DS7-(8-10)**	Solid	10/19/15 17:00	10/21/15 09:30
92272696002	**DS7-(13-15)**	Solid	10/19/15 17:15	10/21/15 09:30
92272696003	**DS-16-(18-20)**	Solid	10/19/15 16:45	10/21/15 09:30
92272696004	**DS-16-(23-25)**	Solid	10/19/15 16:50	10/21/15 09:30
92272696005	**DS-16-(28-30)**	Solid	10/19/15 16:55	10/21/15 09:30
92272696006	**TRIP BLANK 03**	Solid	10/20/15 08:00	10/21/15 09:30
92272696007	**FB-02**	Water	10/20/15 11:50	10/21/15 09:30
92272696008	**DS-34 (13-15)**	Solid	10/20/15 11:00	10/21/15 09:30
92272696009	**DS-31 (13-15)**	Solid	10/20/15 11:20	10/21/15 09:30
92272696010	**DS-34 (8-10)**	Solid	10/20/15 11:20	10/21/15 09:30
92272696011	**DS-31 (8-10)**	Solid	10/20/15 11:30	10/21/15 09:30
92272696012	**DS-33 (13-15)**	Solid	10/20/15 11:25	10/21/15 09:30
92272696013	**DS-33 (8-10)**	Solid	10/20/15 11:25	10/21/15 09:30
92272696014	**DS-21 (0-2)**	Solid	10/20/15 11:40	10/21/15 09:30
92272696015	**DS-27 (0-2)**	Solid	10/20/15 12:40	10/21/15 09:30
92272696016	**DS-21 (3-5)**	Solid	10/20/15 11:45	10/21/15 09:30
92272696017	**DS-27 (3-5)**	Solid	10/20/15 12:00	10/21/15 09:30
92272696018	**TRIP BLANK 04**	Solid	10/20/15 11:55	10/21/15 09:30
92272696019	**DS-27 (8-10)**	Solid	10/20/15 12:10	10/21/15 09:30
92272696020	**DS-24 (0-2)**	Solid	10/20/15 12:05	10/21/15 09:30
92272696021	**DS-17 (18-20)**	Solid	10/20/15 11:40	10/21/15 09:30
92272696022	**DS-17 (23-25)**	Solid	10/20/15 11:45	10/21/15 09:30
92272696023	**DS-17 (28-30)**	Solid	10/20/15 11:50	10/21/15 09:30
92272696024	**DS-20 (0-2)**	Solid	10/20/15 12:00	10/21/15 09:30
92272696025	**DS-20 (3-5)**	Solid	10/20/15 12:05	10/21/15 09:30
92272696026	**DS-20 (8-10)**	Solid	10/20/15 12:10	10/21/15 09:30
92272696027	**DS-27 (13-15)**	Solid	10/20/15 12:15	10/21/15 09:30
92272696028	**DS-24 (3-5)**	Solid	10/20/15 12:15	10/21/15 09:30
92272696029	**DS-20 (13-15)**	Solid	10/20/15 12:15	10/21/15 09:30
92272696030	**DS-22 (8-10)**	Solid	10/20/15 12:15	10/21/15 09:30
92272696031	**DS-23 (3-5)**	Solid	10/20/15 12:20	10/21/15 09:30
92272696032	**DS-20 (18-20)**	Solid	10/20/15 12:20	10/21/15 09:30
92272696033	**DS-23 (0-2)**	Solid	10/20/15 12:30	10/21/15 09:30
92272696034	**DS-22 (13-15)**	Solid	10/20/15 12:20	10/21/15 09:30
92272696035	**DS-20 (23-25)**	Solid	10/20/15 12:25	10/21/15 09:30
92272696036	**DS-20 (28-30)**	Solid	10/20/15 12:30	10/21/15 09:30
92272696037	**TRIP BLANK 05**	Solid	10/20/15 12:30	10/21/15 09:30

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92272696038	**DS-26 (0-2)**	Solid	10/20/15 14:45	10/21/15 09:30
92272696039	**DS-26 (3-5)**	Solid	10/20/15 14:50	10/21/15 09:30
92272696040	**DS-26 (8-10)**	Solid	10/20/15 15:00	10/21/15 09:30
92272696041	**DS-26 (13-15)**	Solid	10/20/15 15:05	10/21/15 09:30
92272696042	**DS-26 (18-20)**	Solid	10/20/15 15:00	10/21/15 09:30
92272696043	**DS-26 (23-25)**	Solid	10/20/15 15:10	10/21/15 09:30
92272696044	**DS-26 (28-30)**	Solid	10/20/15 15:15	10/21/15 09:30

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272696001	**DS7-(8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696002	**DS7-(13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696003	**DS-16-(18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696004	**DS-16-(23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696005	**DS-16-(28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696006	**TRIP BLANK 03**	EPA 8260	DLK	71	PASI-C
92272696007	**FB-02**	EPA 8260	NB	63	PASI-C
92272696008	**DS-34 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696009	**DS-31 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696010	**DS-34 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696011	**DS-31 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696012	**DS-33 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696013	**DS-33 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696014	**DS-21 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696015	**DS-27 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696016	**DS-21 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696017	**DS-27 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696018	**TRIP BLANK 04**	EPA 8260	DLK	71	PASI-C
92272696019	**DS-27 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696020	**DS-24 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272696021	**DS-17 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696022	**DS-17 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696023	**DS-17 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696024	**DS-20 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696025	**DS-20 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696026	**DS-20 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696027	**DS-27 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696028	**DS-24 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696029	**DS-20 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696030	**DS-22 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696031	**DS-23 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696032	**DS-20 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696033	**DS-23 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696034	**DS-22 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696035	**DS-20 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696036	**DS-20 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696037	**TRIP BLANK 05**	EPA 8260	DLK	71	PASI-C
92272696038	**DS-26 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696039	**DS-26 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272696040	**DS-26 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696041	**DS-26 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696042	**DS-26 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696043	**DS-26 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C
92272696044	**DS-26 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	CLW	1	PASI-C

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9800 Kincey Ave. Suite 100
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(704)875-9092

PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

General Information:
43 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/33922

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DS-31 (13-15) (Lab ID: 92272696009)
  - 1,2-Dichloroethane-d4 (S)

QC Batch: MSV/33926

S0: Surrogate recovery outside laboratory control limits.

- DS-20 (28-30) (Lab ID: 92272696036)
  - 1,2-Dichloroethane-d4 (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DS-26 (0-2) (Lab ID: 92272696038)
  - 1,2-Dichloroethane-d4 (S)

QC Batch: MSV/33941

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DS-26 (23-25) (Lab ID: 92272696043)
  - 1,2-Dichloroethane-d4 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

QC Batch: MSV/33925

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1589141)
  - Vinyl acetate

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/33922

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272627001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1590011)
  - 1,1,1,2-Tetrachloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,1,2-Trichloroethane
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,2,4-Trichlorobenzene
  - 1,2,4-Trimethylbenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichlorobenzene
  - 1,3,5-Trimethylbenzene
  - 1,3-Dichlorobenzene
  - 1,3-Dichloropropane
  - 1,4-Dichlorobenzene
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - 2-Chlorotoluene
  - 2-Hexanone
  - 4-Chlorotoluene
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
  - Bromobenzene
  - Bromodichloromethane
  - Bromoform
  - Dibromochloromethane
  - Ethylbenzene
  - Hexachloro-1,3-butadiene
  - Isopropylbenzene (Cumene)
  - Naphthalene
  - Styrene
  - m&p-Xylene
  - n-Butylbenzene
  - n-Propylbenzene
  - o-Xylene

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

QC Batch: MSV/33922

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272627001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- p-Isopropyltoluene
- sec-Butylbenzene
- tert-Butylbenzene

QC Batch: MSV/33925

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272696022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1589595)
  - 2-Butanone (MEK)
  - Acetone
  - Bromomethane

QC Batch: MSV/33926

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272696040

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1590048)
  - Acetone

QC Batch: MSV/33941

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272895002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1591058)
  - 1,2,3-Trichlorobenzene
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,3-Dichlorobenzene
  - 1,4-Dichlorobenzene
  - Hexachloro-1,3-butadiene
  - Naphthalene
  - Tetrachloroethene
  - n-Butylbenzene
  - p-Isopropyltoluene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 26, 2015

Analyte Comments:

QC Batch: MSV/33941

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.

- DS-26 (23-25) (Lab ID: 92272696043)
  - Toluene-d8 (S)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS7-(8-10) **Lab ID: 92272696001** Collected: 10/19/15 17:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**37.0J**	ug/kg	155	15.5	1		10/22/15 18:23	67-64-1	
Benzene	ND	ug/kg	7.8	2.5	1		10/22/15 18:23	71-43-2	
Bromobenzene	ND	ug/kg	7.8	3.1	1		10/22/15 18:23	108-86-1	
Bromochloromethane	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	74-97-5	
Bromodichloromethane	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	75-27-4	
Bromoform	ND	ug/kg	7.8	3.6	1		10/22/15 18:23	75-25-2	
Bromomethane	ND	ug/kg	15.5	3.9	1		10/22/15 18:23	74-83-9	
2-Butanone (MEK)	ND	ug/kg	155	4.5	1		10/22/15 18:23	78-93-3	
n-Butylbenzene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.8	2.5	1		10/22/15 18:23	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.8	3.1	1		10/22/15 18:23	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.8	4.0	1		10/22/15 18:23	56-23-5	
Chlorobenzene	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	108-90-7	
Chloroethane	ND	ug/kg	15.5	3.7	1		10/22/15 18:23	75-00-3	
Chloroform	ND	ug/kg	7.8	2.5	1		10/22/15 18:23	67-66-3	
Chloromethane	ND	ug/kg	15.5	3.7	1		10/22/15 18:23	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.8	5.6	1		10/22/15 18:23	96-12-8	
Dibromochloromethane	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	106-93-4	
Dibromomethane	ND	ug/kg	7.8	3.9	1		10/22/15 18:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.8	3.1	1		10/22/15 18:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.5	5.6	1		10/22/15 18:23	75-71-8	
1,1-Dichloroethane	ND	ug/kg	7.8	2.3	1		10/22/15 18:23	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.8	3.4	1		10/22/15 18:23	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.8	2.2	1		10/22/15 18:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.8	2.3	1		10/22/15 18:23	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.8	2.3	1		10/22/15 18:23	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	233	186	1		10/22/15 18:23	123-91-1	
Ethylbenzene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.8	3.1	1		10/22/15 18:23	87-68-3	
2-Hexanone	ND	ug/kg	77.6	6.1	1		10/22/15 18:23	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	99-87-6	
Methylene Chloride	**18.6J**	ug/kg	31.0	4.7	1		10/22/15 18:23	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS7-(8-10) **Lab ID: 92272696001** Collected: 10/19/15 17:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	77.6	5.7	1		10/22/15 18:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.8	2.3	1		10/22/15 18:23	1634-04-4	
Naphthalene	ND	ug/kg	7.8	1.9	1		10/22/15 18:23	91-20-3	
n-Propylbenzene	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	103-65-1	
Styrene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.8	3.3	1		10/22/15 18:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	79-34-5	
Tetrachloroethene	ND	ug/kg	7.8	2.6	1		10/22/15 18:23	127-18-4	
Toluene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.8	3.4	1		10/22/15 18:23	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.8	2.5	1		10/22/15 18:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.8	3.3	1		10/22/15 18:23	79-00-5	
Trichloroethene	ND	ug/kg	7.8	3.3	1		10/22/15 18:23	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.8	3.4	1		10/22/15 18:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.8	2.5	1		10/22/15 18:23	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.8	3.1	1		10/22/15 18:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.8	2.8	1		10/22/15 18:23	108-67-8	
Vinyl acetate	ND	ug/kg	77.6	13.7	1		10/22/15 18:23	108-05-4	
Vinyl chloride	ND	ug/kg	15.5	2.8	1		10/22/15 18:23	75-01-4	
Xylene (Total)	ND	ug/kg	15.5	5.6	1		10/22/15 18:23	1330-20-7	
m&p-Xylene	ND	ug/kg	15.5	5.6	1		10/22/15 18:23	179601-23-1	
o-Xylene	ND	ug/kg	7.8	2.9	1		10/22/15 18:23	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/22/15 18:23	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1		10/22/15 18:23	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/22/15 18:23	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.8**	%	0.10	0.10	1		10/22/15 12:36		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS7-(13-15) **Lab ID: 92272696002** Collected: 10/19/15 17:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**22.6J**	ug/kg	132	13.2	1		10/22/15 18:43	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		10/22/15 18:43	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 18:43	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		10/22/15 18:43	75-25-2	
Bromomethane	ND	ug/kg	13.2	3.3	1		10/22/15 18:43	74-83-9	
2-Butanone (MEK)	ND	ug/kg	132	3.8	1		10/22/15 18:43	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		10/22/15 18:43	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 18:43	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		10/22/15 18:43	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	108-90-7	
Chloroethane	ND	ug/kg	13.2	3.2	1		10/22/15 18:43	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		10/22/15 18:43	67-66-3	
Chloromethane	ND	ug/kg	13.2	3.2	1		10/22/15 18:43	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.8	1		10/22/15 18:43	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		10/22/15 18:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 18:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.2	4.8	1		10/22/15 18:43	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		10/22/15 18:43	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		10/22/15 18:43	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.9	1		10/22/15 18:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 18:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 18:43	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	198	159	1		10/22/15 18:43	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		10/22/15 18:43	87-68-3	
2-Hexanone	ND	ug/kg	66.1	5.2	1		10/22/15 18:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	99-87-6	
Methylene Chloride	**10.7J**	ug/kg	26.5	4.0	1		10/22/15 18:43	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS7-(13-15) **Lab ID: 92272696002** Collected: 10/19/15 17:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	66.1	4.9	1		10/22/15 18:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		10/22/15 18:43	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		10/22/15 18:43	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 18:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		10/22/15 18:43	127-18-4	
Toluene	**2.8J**	ug/kg	6.6	2.4	1		10/22/15 18:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		10/22/15 18:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		10/22/15 18:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 18:43	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		10/22/15 18:43	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		10/22/15 18:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		10/22/15 18:43	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 18:43	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 18:43	108-67-8	
Vinyl acetate	ND	ug/kg	66.1	11.6	1		10/22/15 18:43	108-05-4	
Vinyl chloride	ND	ug/kg	13.2	2.4	1		10/22/15 18:43	75-01-4	
Xylene (Total)	ND	ug/kg	13.2	4.8	1		10/22/15 18:43	1330-20-7	
m&p-Xylene	ND	ug/kg	13.2	4.8	1		10/22/15 18:43	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		10/22/15 18:43	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/22/15 18:43	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/22/15 18:43	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/22/15 18:43	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.6**	%	0.10	0.10	1		10/22/15 12:37		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-16-(18-20) **Lab ID: 92272696003** Collected: 10/19/15 16:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**22.1J**	ug/kg	130	13.0	1		10/22/15 19:03	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1		10/22/15 19:03	71-43-2	
Bromobenzene	ND	ug/kg	6.5	2.6	1		10/22/15 19:03	108-86-1	
Bromochloromethane	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1		10/22/15 19:03	75-25-2	
Bromomethane	ND	ug/kg	13.0	3.3	1		10/22/15 19:03	74-83-9	
2-Butanone (MEK)	ND	ug/kg	130	3.8	1		10/22/15 19:03	78-93-3	
n-Butylbenzene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.5	2.1	1		10/22/15 19:03	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.5	2.6	1		10/22/15 19:03	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1		10/22/15 19:03	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	108-90-7	
Chloroethane	ND	ug/kg	13.0	3.1	1		10/22/15 19:03	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1		10/22/15 19:03	67-66-3	
Chloromethane	ND	ug/kg	13.0	3.1	1		10/22/15 19:03	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.7	1		10/22/15 19:03	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	106-93-4	
Dibromomethane	ND	ug/kg	6.5	3.3	1		10/22/15 19:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1		10/22/15 19:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.0	4.7	1		10/22/15 19:03	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	2.0	1		10/22/15 19:03	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.9	1		10/22/15 19:03	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1		10/22/15 19:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.5	2.0	1		10/22/15 19:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	2.0	1		10/22/15 19:03	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	195	156	1		10/22/15 19:03	123-91-1	
Ethylbenzene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.5	2.6	1		10/22/15 19:03	87-68-3	
2-Hexanone	ND	ug/kg	65.1	5.1	1		10/22/15 19:03	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	99-87-6	
Methylene Chloride	**12.9J**	ug/kg	26.0	3.9	1		10/22/15 19:03	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-16-(18-20) **Lab ID: 92272696003** Collected: 10/19/15 16:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.1	4.8	1		10/22/15 19:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.5	2.0	1		10/22/15 19:03	1634-04-4	
Naphthalene	ND	ug/kg	6.5	1.6	1		10/22/15 19:03	91-20-3	
n-Propylbenzene	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	103-65-1	
Styrene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.5	2.7	1		10/22/15 19:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	79-34-5	
Tetrachloroethene	ND	ug/kg	6.5	2.2	1		10/22/15 19:03	127-18-4	
Toluene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.9	1		10/22/15 19:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1		10/22/15 19:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1		10/22/15 19:03	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1		10/22/15 19:03	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.5	2.9	1		10/22/15 19:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.5	2.1	1		10/22/15 19:03	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.5	2.6	1		10/22/15 19:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.5	2.3	1		10/22/15 19:03	108-67-8	
Vinyl acetate	ND	ug/kg	65.1	11.5	1		10/22/15 19:03	108-05-4	
Vinyl chloride	ND	ug/kg	13.0	2.3	1		10/22/15 19:03	75-01-4	
Xylene (Total)	ND	ug/kg	13.0	4.7	1		10/22/15 19:03	1330-20-7	
m&p-Xylene	ND	ug/kg	13.0	4.7	1		10/22/15 19:03	179601-23-1	
o-Xylene	ND	ug/kg	6.5	2.5	1		10/22/15 19:03	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		10/22/15 19:03	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 19:03	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/22/15 19:03	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.0**	%	0.10	0.10	1		10/22/15 12:37		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-16-(23-25) **Lab ID: 92272696004** Collected: 10/19/15 16:50 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**44.4J**	ug/kg	117	11.7	1		10/22/15 19:22	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		10/22/15 19:22	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/22/15 19:22	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/22/15 19:22	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		10/22/15 19:22	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		10/22/15 19:22	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		10/22/15 19:22	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/22/15 19:22	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/22/15 19:22	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		10/22/15 19:22	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		10/22/15 19:22	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		10/22/15 19:22	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/22/15 19:22	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/22/15 19:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/22/15 19:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		10/22/15 19:22	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/22/15 19:22	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.6	1		10/22/15 19:22	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/22/15 19:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/22/15 19:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/22/15 19:22	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	175	140	1		10/22/15 19:22	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/22/15 19:22	87-68-3	
2-Hexanone	ND	ug/kg	58.3	4.5	1		10/22/15 19:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	99-87-6	
Methylene Chloride	**16.2J**	ug/kg	23.3	3.5	1		10/22/15 19:22	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-16-(23-25) **Lab ID: 92272696004** Collected: 10/19/15 16:50 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.3	4.3	1		10/22/15 19:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/22/15 19:22	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/22/15 19:22	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/22/15 19:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/22/15 19:22	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.6	1		10/22/15 19:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		10/22/15 19:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/22/15 19:22	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/22/15 19:22	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.6	1		10/22/15 19:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		10/22/15 19:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/22/15 19:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 19:22	108-67-8	
Vinyl acetate	ND	ug/kg	58.3	10.3	1		10/22/15 19:22	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		10/22/15 19:22	75-01-4	
Xylene (Total)	ND	ug/kg	11.7	4.2	1		10/22/15 19:22	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	4.2	1		10/22/15 19:22	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/22/15 19:22	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/22/15 19:22	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/22/15 19:22	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/22/15 19:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.4**	%	0.10	0.10	1		10/22/15 12:37		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-16-(28-30) **Lab ID: 92272696005** Collected: 10/19/15 16:55 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**14.0J**	ug/kg	108	10.8	1		10/22/15 19:42	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/22/15 19:42	75-25-2	
Bromomethane	ND	ug/kg	10.8	2.7	1		10/22/15 19:42	74-83-9	
2-Butanone (MEK)	ND	ug/kg	108	3.1	1		10/22/15 19:42	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/22/15 19:42	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	108-90-7	
Chloroethane	ND	ug/kg	10.8	2.6	1		10/22/15 19:42	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	67-66-3	
Chloromethane	ND	ug/kg	10.8	2.6	1		10/22/15 19:42	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/22/15 19:42	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/22/15 19:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.8	3.9	1		10/22/15 19:42	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/22/15 19:42	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/22/15 19:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	162	129	1		10/22/15 19:42	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	87-68-3	
2-Hexanone	ND	ug/kg	53.9	4.2	1		10/22/15 19:42	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	99-87-6	
Methylene Chloride	**14.7J**	ug/kg	21.5	3.2	1		10/22/15 19:42	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-16-(28-30) **Lab ID: 92272696005** Collected: 10/19/15 16:55 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.9	4.0	1		10/22/15 19:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/22/15 19:42	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/22/15 19:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/22/15 19:42	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/22/15 19:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/22/15 19:42	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		10/22/15 19:42	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/22/15 19:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	108-67-8	
Vinyl acetate	ND	ug/kg	53.9	9.5	1		10/22/15 19:42	108-05-4	
Vinyl chloride	ND	ug/kg	10.8	1.9	1		10/22/15 19:42	75-01-4	
Xylene (Total)	ND	ug/kg	10.8	3.9	1		10/22/15 19:42	1330-20-7	
m&p-Xylene	ND	ug/kg	10.8	3.9	1		10/22/15 19:42	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/22/15 19:42	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/22/15 19:42	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-132		1		10/22/15 19:42	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.7**	%	0.10	0.10	1		10/22/15 12:38		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: TRIP BLANK 03 **Lab ID: 92272696006** Collected: 10/20/15 08:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**12.1J**	ug/kg	100	10.0	1		10/22/15 20:02	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/22/15 20:02	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:02	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/22/15 20:02	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/22/15 20:02	74-83-9	
2-Butanone (MEK)	**10.9J**	ug/kg	100	2.9	1		10/22/15 20:02	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/22/15 20:02	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:02	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/22/15 20:02	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/22/15 20:02	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/22/15 20:02	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/22/15 20:02	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/22/15 20:02	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/22/15 20:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/22/15 20:02	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/22/15 20:02	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/22/15 20:02	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/22/15 20:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 20:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 20:02	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/22/15 20:02	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/22/15 20:02	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/22/15 20:02	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	99-87-6	
Methylene Chloride	**3.6J**	ug/kg	20.0	3.0	1		10/22/15 20:02	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: TRIP BLANK 03 **Lab ID: 92272696006** Collected: 10/20/15 08:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/22/15 20:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/22/15 20:02	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/22/15 20:02	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 20:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/22/15 20:02	127-18-4	
Toluene	**3.4J**	ug/kg	5.0	1.8	1		10/22/15 20:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/22/15 20:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/22/15 20:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 20:02	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/22/15 20:02	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/22/15 20:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/22/15 20:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 20:02	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/22/15 20:02	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/22/15 20:02	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/22/15 20:02	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/22/15 20:02	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/22/15 20:02	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/22/15 20:02	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/22/15 20:02	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		10/22/15 20:02	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: FB-02 **Lab ID: 92272696007** Collected: 10/20/15 11:50 Received: 10/21/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/25/15 19:03	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		10/25/15 19:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/25/15 19:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/25/15 19:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/25/15 19:03	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/25/15 19:03	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/25/15 19:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/25/15 19:03	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/25/15 19:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/25/15 19:03	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/25/15 19:03	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/25/15 19:03	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/25/15 19:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/25/15 19:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/25/15 19:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/25/15 19:03	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/25/15 19:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/25/15 19:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/25/15 19:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/25/15 19:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/25/15 19:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/25/15 19:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/25/15 19:03	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/25/15 19:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/25/15 19:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/25/15 19:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/25/15 19:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/25/15 19:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/25/15 19:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/25/15 19:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/25/15 19:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/25/15 19:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/25/15 19:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/25/15 19:03	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/25/15 19:03	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/25/15 19:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/25/15 19:03	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/25/15 19:03	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/25/15 19:03	99-87-6	
Methylene Chloride	**2.1**	ug/L	2.0	0.97	1		10/25/15 19:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/25/15 19:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		10/25/15 19:03	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		10/25/15 19:03	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		10/25/15 19:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/25/15 19:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/25/15 19:03	79-34-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: FB-02 **Lab ID: 92272696007** Collected: 10/20/15 11:50 Received: 10/21/15 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/25/15 19:03	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/25/15 19:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/25/15 19:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/25/15 19:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/25/15 19:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/25/15 19:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/25/15 19:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/25/15 19:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/25/15 19:03	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/25/15 19:03	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/25/15 19:03	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/25/15 19:03	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/25/15 19:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/25/15 19:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/25/15 19:03	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/25/15 19:03	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/25/15 19:03	2037-26-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-34 (13-15) **Lab ID: 92272696008** Collected: 10/20/15 11:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**24.1J**	ug/kg	137	13.7	1		10/22/15 20:22	67-64-1	
Benzene	ND	ug/kg	6.8	2.2	1		10/22/15 20:22	71-43-2	
Bromobenzene	ND	ug/kg	6.8	2.7	1		10/22/15 20:22	108-86-1	
Bromochloromethane	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	74-97-5	
Bromodichloromethane	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	75-27-4	
Bromoform	ND	ug/kg	6.8	3.1	1		10/22/15 20:22	75-25-2	
Bromomethane	ND	ug/kg	13.7	3.4	1		10/22/15 20:22	74-83-9	
2-Butanone (MEK)	ND	ug/kg	137	4.0	1		10/22/15 20:22	78-93-3	
n-Butylbenzene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.8	2.2	1		10/22/15 20:22	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.8	2.7	1		10/22/15 20:22	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.8	3.6	1		10/22/15 20:22	56-23-5	
Chlorobenzene	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	108-90-7	
Chloroethane	ND	ug/kg	13.7	3.3	1		10/22/15 20:22	75-00-3	
Chloroform	ND	ug/kg	6.8	2.2	1		10/22/15 20:22	67-66-3	
Chloromethane	ND	ug/kg	13.7	3.3	1		10/22/15 20:22	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.8	4.9	1		10/22/15 20:22	96-12-8	
Dibromochloromethane	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	106-93-4	
Dibromomethane	ND	ug/kg	6.8	3.4	1		10/22/15 20:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.8	2.7	1		10/22/15 20:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.7	4.9	1		10/22/15 20:22	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.8	2.0	1		10/22/15 20:22	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.8	3.0	1		10/22/15 20:22	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.8	1.9	1		10/22/15 20:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.8	2.0	1		10/22/15 20:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.8	2.0	1		10/22/15 20:22	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	205	164	1		10/22/15 20:22	123-91-1	
Ethylbenzene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.8	2.7	1		10/22/15 20:22	87-68-3	
2-Hexanone	ND	ug/kg	68.3	5.3	1		10/22/15 20:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	99-87-6	
Methylene Chloride	**14.7J**	ug/kg	27.3	4.1	1		10/22/15 20:22	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-34 (13-15) **Lab ID: 92272696008** Collected: 10/20/15 11:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	68.3	5.1	1		10/22/15 20:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.8	2.0	1		10/22/15 20:22	1634-04-4	
Naphthalene	ND	ug/kg	6.8	1.6	1		10/22/15 20:22	91-20-3	
n-Propylbenzene	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	103-65-1	
Styrene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.8	2.9	1		10/22/15 20:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	79-34-5	
Tetrachloroethene	ND	ug/kg	6.8	2.3	1		10/22/15 20:22	127-18-4	
Toluene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.8	3.0	1		10/22/15 20:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.8	2.2	1		10/22/15 20:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.8	2.9	1		10/22/15 20:22	79-00-5	
Trichloroethene	ND	ug/kg	6.8	2.9	1		10/22/15 20:22	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.8	3.0	1		10/22/15 20:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.8	2.2	1		10/22/15 20:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.8	2.7	1		10/22/15 20:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.8	2.5	1		10/22/15 20:22	108-67-8	
Vinyl acetate	ND	ug/kg	68.3	12.0	1		10/22/15 20:22	108-05-4	
Vinyl chloride	ND	ug/kg	13.7	2.5	1		10/22/15 20:22	75-01-4	
Xylene (Total)	ND	ug/kg	13.7	4.9	1		10/22/15 20:22	1330-20-7	
m&p-Xylene	ND	ug/kg	13.7	4.9	1		10/22/15 20:22	179601-23-1	
o-Xylene	ND	ug/kg	6.8	2.6	1		10/22/15 20:22	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/22/15 20:22	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/22/15 20:22	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/22/15 20:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.4**	%	0.10	0.10	1		10/22/15 12:38		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-31 (13-15) **Lab ID: 92272696009** Collected: 10/20/15 11:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**39.6J**	ug/kg	152	15.2	1		10/22/15 20:42	67-64-1	
Benzene	ND	ug/kg	7.6	2.4	1		10/22/15 20:42	71-43-2	
Bromobenzene	ND	ug/kg	7.6	3.0	1		10/22/15 20:42	108-86-1	
Bromochloromethane	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	74-97-5	
Bromodichloromethane	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	75-27-4	
Bromoform	ND	ug/kg	7.6	3.5	1		10/22/15 20:42	75-25-2	
Bromomethane	ND	ug/kg	15.2	3.8	1		10/22/15 20:42	74-83-9	
2-Butanone (MEK)	ND	ug/kg	152	4.4	1		10/22/15 20:42	78-93-3	
n-Butylbenzene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.6	2.4	1		10/22/15 20:42	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.6	3.0	1		10/22/15 20:42	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.6	3.9	1		10/22/15 20:42	56-23-5	
Chlorobenzene	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	108-90-7	
Chloroethane	ND	ug/kg	15.2	3.6	1		10/22/15 20:42	75-00-3	
Chloroform	ND	ug/kg	7.6	2.4	1		10/22/15 20:42	67-66-3	
Chloromethane	ND	ug/kg	15.2	3.6	1		10/22/15 20:42	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.6	5.5	1		10/22/15 20:42	96-12-8	
Dibromochloromethane	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	106-93-4	
Dibromomethane	ND	ug/kg	7.6	3.8	1		10/22/15 20:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.6	3.0	1		10/22/15 20:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.2	5.5	1		10/22/15 20:42	75-71-8	
1,1-Dichloroethane	ND	ug/kg	7.6	2.3	1		10/22/15 20:42	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.6	3.3	1		10/22/15 20:42	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	75-35-4	
cis-1,2-Dichloroethene	**4.2J**	ug/kg	7.6	2.1	1		10/22/15 20:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.6	2.3	1		10/22/15 20:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.6	2.3	1		10/22/15 20:42	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	228	182	1		10/22/15 20:42	123-91-1	
Ethylbenzene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.6	3.0	1		10/22/15 20:42	87-68-3	
2-Hexanone	ND	ug/kg	75.8	5.9	1		10/22/15 20:42	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	99-87-6	
Methylene Chloride	**23.2J**	ug/kg	30.3	4.6	1		10/22/15 20:42	75-09-2	

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-31 (13-15) **Lab ID: 92272696009** Collected: 10/20/15 11:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	75.8	5.6	1		10/22/15 20:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.6	2.3	1		10/22/15 20:42	1634-04-4	
Naphthalene	ND	ug/kg	7.6	1.8	1		10/22/15 20:42	91-20-3	
n-Propylbenzene	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	103-65-1	
Styrene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.6	3.2	1		10/22/15 20:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	79-34-5	
Tetrachloroethene	ND	ug/kg	7.6	2.6	1		10/22/15 20:42	127-18-4	
Toluene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.6	3.3	1		10/22/15 20:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.6	2.4	1		10/22/15 20:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.6	3.2	1		10/22/15 20:42	79-00-5	
Trichloroethene	ND	ug/kg	7.6	3.2	1		10/22/15 20:42	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.6	3.3	1		10/22/15 20:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.6	2.4	1		10/22/15 20:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.6	3.0	1		10/22/15 20:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.6	2.7	1		10/22/15 20:42	108-67-8	
Vinyl acetate	ND	ug/kg	75.8	13.3	1		10/22/15 20:42	108-05-4	
Vinyl chloride	ND	ug/kg	15.2	2.7	1		10/22/15 20:42	75-01-4	
Xylene (Total)	ND	ug/kg	15.2	5.5	1		10/22/15 20:42	1330-20-7	
m&p-Xylene	ND	ug/kg	15.2	5.5	1		10/22/15 20:42	179601-23-1	
o-Xylene	ND	ug/kg	7.6	2.9	1		10/22/15 20:42	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/22/15 20:42	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/22/15 20:42	460-00-4	
1,2-Dichloroethane-d4 (S)	165	%	70-132		1		10/22/15 20:42	17060-07-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.10	0.10	1		10/22/15 12:38		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-34 (8-10) **Lab ID: 92272696010** Collected: 10/20/15 11:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**27.8J**	ug/kg	119	11.9	1		10/22/15 21:01	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		10/22/15 21:01	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		10/22/15 21:01	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	75-27-4	
Bromoform	ND	ug/kg	6.0	2.7	1		10/22/15 21:01	75-25-2	
Bromomethane	ND	ug/kg	11.9	3.0	1		10/22/15 21:01	74-83-9	
2-Butanone (MEK)	ND	ug/kg	119	3.5	1		10/22/15 21:01	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		10/22/15 21:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		10/22/15 21:01	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		10/22/15 21:01	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	108-90-7	
Chloroethane	ND	ug/kg	11.9	2.9	1		10/22/15 21:01	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		10/22/15 21:01	67-66-3	
Chloromethane	ND	ug/kg	11.9	2.9	1		10/22/15 21:01	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		10/22/15 21:01	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		10/22/15 21:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		10/22/15 21:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.9	4.3	1		10/22/15 21:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.0	1.8	1		10/22/15 21:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.6	1		10/22/15 21:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.0	1.7	1		10/22/15 21:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/22/15 21:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/22/15 21:01	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	179	143	1		10/22/15 21:01	123-91-1	
Ethylbenzene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		10/22/15 21:01	87-68-3	
2-Hexanone	ND	ug/kg	59.6	4.7	1		10/22/15 21:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	99-87-6	
Methylene Chloride	**10.3J**	ug/kg	23.8	3.6	1		10/22/15 21:01	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-34 (8-10) **Lab ID: 92272696010** Collected: 10/20/15 11:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.6	4.4	1		10/22/15 21:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		10/22/15 21:01	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		10/22/15 21:01	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	103-65-1	
Styrene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		10/22/15 21:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	79-34-5	
Tetrachloroethene	ND	ug/kg	6.0	2.0	1		10/22/15 21:01	127-18-4	
Toluene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.6	1		10/22/15 21:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		10/22/15 21:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		10/22/15 21:01	79-00-5	
Trichloroethene	ND	ug/kg	6.0	2.5	1		10/22/15 21:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.6	1		10/22/15 21:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		10/22/15 21:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		10/22/15 21:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.1	1		10/22/15 21:01	108-67-8	
Vinyl acetate	ND	ug/kg	59.6	10.5	1		10/22/15 21:01	108-05-4	
Vinyl chloride	ND	ug/kg	11.9	2.1	1		10/22/15 21:01	75-01-4	
Xylene (Total)	ND	ug/kg	11.9	4.3	1		10/22/15 21:01	1330-20-7	
m&p-Xylene	ND	ug/kg	11.9	4.3	1		10/22/15 21:01	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		10/22/15 21:01	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/22/15 21:01	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/22/15 21:01	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		10/22/15 21:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.1**	%	0.10	0.10	1		10/22/15 12:38		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-31 (8-10) **Lab ID: 92272696011** Collected: 10/20/15 11:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	131	13.1	1		10/22/15 21:21	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		10/22/15 21:21	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 21:21	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		10/22/15 21:21	75-25-2	
Bromomethane	ND	ug/kg	13.1	3.3	1		10/22/15 21:21	74-83-9	
2-Butanone (MEK)	ND	ug/kg	131	3.8	1		10/22/15 21:21	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		10/22/15 21:21	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 21:21	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		10/22/15 21:21	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	108-90-7	
Chloroethane	ND	ug/kg	13.1	3.2	1		10/22/15 21:21	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		10/22/15 21:21	67-66-3	
Chloromethane	ND	ug/kg	13.1	3.2	1		10/22/15 21:21	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.7	1		10/22/15 21:21	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		10/22/15 21:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 21:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.1	4.7	1		10/22/15 21:21	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		10/22/15 21:21	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		10/22/15 21:21	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.8	1		10/22/15 21:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 21:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 21:21	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	197	158	1		10/22/15 21:21	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		10/22/15 21:21	87-68-3	
2-Hexanone	ND	ug/kg	65.7	5.1	1		10/22/15 21:21	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	99-87-6	
Methylene Chloride	**9.8J**	ug/kg	26.3	3.9	1		10/22/15 21:21	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-31 (8-10) **Lab ID: 92272696011** Collected: 10/20/15 11:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.7	4.9	1		10/22/15 21:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		10/22/15 21:21	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		10/22/15 21:21	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		10/22/15 21:21	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 21:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	79-34-5	
Tetrachloroethene	**2.5J**	ug/kg	6.6	2.2	1		10/22/15 21:21	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		10/22/15 21:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		10/22/15 21:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 21:21	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		10/22/15 21:21	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		10/22/15 21:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		10/22/15 21:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 21:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 21:21	108-67-8	
Vinyl acetate	ND	ug/kg	65.7	11.6	1		10/22/15 21:21	108-05-4	
Vinyl chloride	ND	ug/kg	13.1	2.4	1		10/22/15 21:21	75-01-4	
Xylene (Total)	ND	ug/kg	13.1	4.7	1		10/22/15 21:21	1330-20-7	
m&p-Xylene	ND	ug/kg	13.1	4.7	1		10/22/15 21:21	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		10/22/15 21:21	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/22/15 21:21	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 21:21	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/22/15 21:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.2**	%	0.10	0.10	1		10/22/15 12:38		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-33 (13-15) **Lab ID: 92272696012** Collected: 10/20/15 11:25 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	103	10.3	1		10/22/15 21:41	67-64-1	
Benzene	ND	ug/kg	5.2	1.7	1		10/22/15 21:41	71-43-2	
Bromobenzene	ND	ug/kg	5.2	2.1	1		10/22/15 21:41	108-86-1	
Bromochloromethane	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	74-97-5	
Bromodichloromethane	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	75-27-4	
Bromoform	ND	ug/kg	5.2	2.4	1		10/22/15 21:41	75-25-2	
Bromomethane	ND	ug/kg	10.3	2.6	1		10/22/15 21:41	74-83-9	
2-Butanone (MEK)	ND	ug/kg	103	3.0	1		10/22/15 21:41	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1.7	1		10/22/15 21:41	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	2.1	1		10/22/15 21:41	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.2	2.7	1		10/22/15 21:41	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	108-90-7	
Chloroethane	ND	ug/kg	10.3	2.5	1		10/22/15 21:41	75-00-3	
Chloroform	ND	ug/kg	5.2	1.7	1		10/22/15 21:41	67-66-3	
Chloromethane	ND	ug/kg	10.3	2.5	1		10/22/15 21:41	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	3.7	1		10/22/15 21:41	96-12-8	
Dibromochloromethane	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	106-93-4	
Dibromomethane	ND	ug/kg	5.2	2.6	1		10/22/15 21:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	2.1	1		10/22/15 21:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.3	3.7	1		10/22/15 21:41	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.2	1.5	1		10/22/15 21:41	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	2.3	1		10/22/15 21:41	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1.4	1		10/22/15 21:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.2	1.5	1		10/22/15 21:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1.5	1		10/22/15 21:41	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	155	124	1		10/22/15 21:41	123-91-1	
Ethylbenzene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	2.1	1		10/22/15 21:41	87-68-3	
2-Hexanone	ND	ug/kg	51.6	4.0	1		10/22/15 21:41	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	99-87-6	
Methylene Chloride	**9.3J**	ug/kg	20.7	3.1	1		10/22/15 21:41	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-33 (13-15) **Lab ID: 92272696012** Collected: 10/20/15 11:25 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.6	3.8	1		10/22/15 21:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1.5	1		10/22/15 21:41	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1.2	1		10/22/15 21:41	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1.8	1		10/22/15 21:41	103-65-1	
Styrene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	2.2	1		10/22/15 21:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	79-34-5	
Tetrachloroethene	**2.6J**	ug/kg	5.2	1.8	1		10/22/15 21:41	127-18-4	
Toluene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	2.3	1		10/22/15 21:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	1.7	1		10/22/15 21:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	2.2	1		10/22/15 21:41	79-00-5	
Trichloroethene	ND	ug/kg	5.2	2.2	1		10/22/15 21:41	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.2	2.3	1		10/22/15 21:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.2	1.7	1		10/22/15 21:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	2.1	1		10/22/15 21:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1.9	1		10/22/15 21:41	108-67-8	
Vinyl acetate	ND	ug/kg	51.6	9.1	1		10/22/15 21:41	108-05-4	
Vinyl chloride	ND	ug/kg	10.3	1.9	1		10/22/15 21:41	75-01-4	
Xylene (Total)	ND	ug/kg	10.3	3.7	1		10/22/15 21:41	1330-20-7	
m&p-Xylene	ND	ug/kg	10.3	3.7	1		10/22/15 21:41	179601-23-1	
o-Xylene	ND	ug/kg	5.2	2.0	1		10/22/15 21:41	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/22/15 21:41	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		10/22/15 21:41	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-132		1		10/22/15 21:41	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.9**	%	0.10	0.10	1		10/22/15 12:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-33 (8-10) **Lab ID: 92272696013** Collected: 10/20/15 11:25 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**27.3J**	ug/kg	116	11.6	1		10/23/15 17:32	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		10/23/15 17:32	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/23/15 17:32	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/23/15 17:32	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		10/23/15 17:32	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		10/23/15 17:32	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		10/23/15 17:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/23/15 17:32	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/23/15 17:32	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		10/23/15 17:32	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		10/23/15 17:32	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		10/23/15 17:32	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/23/15 17:32	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/23/15 17:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/23/15 17:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		10/23/15 17:32	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/23/15 17:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.5	1		10/23/15 17:32	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/23/15 17:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/23/15 17:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/23/15 17:32	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	174	139	1		10/23/15 17:32	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/23/15 17:32	87-68-3	
2-Hexanone	ND	ug/kg	57.9	4.5	1		10/23/15 17:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	99-87-6	
Methylene Chloride	**7.3J**	ug/kg	23.2	3.5	1		10/23/15 17:32	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-33 (8-10) **Lab ID: 92272696013** Collected: 10/20/15 11:25 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.9	4.3	1		10/23/15 17:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/23/15 17:32	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/23/15 17:32	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/23/15 17:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/23/15 17:32	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.5	1		10/23/15 17:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		10/23/15 17:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/23/15 17:32	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/23/15 17:32	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.5	1		10/23/15 17:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		10/23/15 17:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/23/15 17:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/23/15 17:32	108-67-8	
Vinyl acetate	ND	ug/kg	57.9	10.2	1		10/23/15 17:32	108-05-4	
Vinyl chloride	ND	ug/kg	11.6	2.1	1		10/23/15 17:32	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		10/23/15 17:32	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		10/23/15 17:32	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/23/15 17:32	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/23/15 17:32	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/23/15 17:32	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		10/23/15 17:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.4**	%	0.10	0.10	1		10/22/15 12:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-21 (0-2) **Lab ID: 92272696014** Collected: 10/20/15 11:40 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**14.9J**	ug/kg	137	13.7	1		10/23/15 17:52	67-64-1	
Benzene	ND	ug/kg	6.9	2.2	1		10/23/15 17:52	71-43-2	
Bromobenzene	ND	ug/kg	6.9	2.7	1		10/23/15 17:52	108-86-1	
Bromochloromethane	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	74-97-5	
Bromodichloromethane	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	75-27-4	
Bromoform	ND	ug/kg	6.9	3.2	1		10/23/15 17:52	75-25-2	
Bromomethane	ND	ug/kg	13.7	3.4	1		10/23/15 17:52	74-83-9	
2-Butanone (MEK)	ND	ug/kg	137	4.0	1		10/23/15 17:52	78-93-3	
n-Butylbenzene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.9	2.2	1		10/23/15 17:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.9	2.7	1		10/23/15 17:52	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.9	3.6	1		10/23/15 17:52	56-23-5	
Chlorobenzene	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	108-90-7	
Chloroethane	ND	ug/kg	13.7	3.3	1		10/23/15 17:52	75-00-3	
Chloroform	ND	ug/kg	6.9	2.2	1		10/23/15 17:52	67-66-3	
Chloromethane	ND	ug/kg	13.7	3.3	1		10/23/15 17:52	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.9	4.9	1		10/23/15 17:52	96-12-8	
Dibromochloromethane	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	106-93-4	
Dibromomethane	ND	ug/kg	6.9	3.4	1		10/23/15 17:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.9	2.7	1		10/23/15 17:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.7	4.9	1		10/23/15 17:52	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.9	2.1	1		10/23/15 17:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.9	3.0	1		10/23/15 17:52	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.9	1.9	1		10/23/15 17:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.9	2.1	1		10/23/15 17:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.9	2.1	1		10/23/15 17:52	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	206	165	1		10/23/15 17:52	123-91-1	
Ethylbenzene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.9	2.7	1		10/23/15 17:52	87-68-3	
2-Hexanone	ND	ug/kg	68.6	5.4	1		10/23/15 17:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	99-87-6	
Methylene Chloride	**15.9J**	ug/kg	27.4	4.1	1		10/23/15 17:52	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-21 (0-2) **Lab ID: 92272696014** Collected: 10/20/15 11:40 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	68.6	5.1	1		10/23/15 17:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.9	2.1	1		10/23/15 17:52	1634-04-4	
Naphthalene	ND	ug/kg	6.9	1.6	1		10/23/15 17:52	91-20-3	
n-Propylbenzene	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	103-65-1	
Styrene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.9	2.9	1		10/23/15 17:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	79-34-5	
Tetrachloroethene	ND	ug/kg	6.9	2.3	1		10/23/15 17:52	127-18-4	
Toluene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.9	3.0	1		10/23/15 17:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.9	2.2	1		10/23/15 17:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.9	2.9	1		10/23/15 17:52	79-00-5	
Trichloroethene	ND	ug/kg	6.9	2.9	1		10/23/15 17:52	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.9	3.0	1		10/23/15 17:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.9	2.2	1		10/23/15 17:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.9	2.7	1		10/23/15 17:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.9	2.5	1		10/23/15 17:52	108-67-8	
Vinyl acetate	ND	ug/kg	68.6	12.1	1		10/23/15 17:52	108-05-4	
Vinyl chloride	ND	ug/kg	13.7	2.5	1		10/23/15 17:52	75-01-4	
Xylene (Total)	ND	ug/kg	13.7	4.9	1		10/23/15 17:52	1330-20-7	
m&p-Xylene	ND	ug/kg	13.7	4.9	1		10/23/15 17:52	179601-23-1	
o-Xylene	ND	ug/kg	6.9	2.6	1		10/23/15 17:52	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/23/15 17:52	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/23/15 17:52	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/23/15 17:52	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.8**	%	0.10	0.10	1		10/22/15 12:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (0-2) **Lab ID: 92272696015** Collected: 10/20/15 12:40 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.4J**	ug/kg	97.3	9.7	1		10/23/15 18:12	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		10/23/15 18:12	71-43-2	
Bromobenzene	ND	ug/kg	4.9	1.9	1		10/23/15 18:12	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	75-27-4	
Bromoform	ND	ug/kg	4.9	2.2	1		10/23/15 18:12	75-25-2	
Bromomethane	ND	ug/kg	9.7	2.4	1		10/23/15 18:12	74-83-9	
2-Butanone (MEK)	ND	ug/kg	97.3	2.8	1		10/23/15 18:12	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		10/23/15 18:12	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	1.9	1		10/23/15 18:12	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.5	1		10/23/15 18:12	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	108-90-7	
Chloroethane	ND	ug/kg	9.7	2.3	1		10/23/15 18:12	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		10/23/15 18:12	67-66-3	
Chloromethane	ND	ug/kg	9.7	2.3	1		10/23/15 18:12	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1		10/23/15 18:12	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.4	1		10/23/15 18:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		10/23/15 18:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.7	3.5	1		10/23/15 18:12	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		10/23/15 18:12	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.1	1		10/23/15 18:12	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.9	1.4	1		10/23/15 18:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/23/15 18:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/23/15 18:12	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	146	117	1		10/23/15 18:12	123-91-1	
Ethylbenzene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	1.9	1		10/23/15 18:12	87-68-3	
2-Hexanone	ND	ug/kg	48.7	3.8	1		10/23/15 18:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	99-87-6	
Methylene Chloride	**10.8J**	ug/kg	19.5	2.9	1		10/23/15 18:12	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (0-2) **Lab ID: 92272696015** Collected: 10/20/15 12:40 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.7	3.6	1		10/23/15 18:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		10/23/15 18:12	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		10/23/15 18:12	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		10/23/15 18:12	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.0	1		10/23/15 18:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	79-34-5	
Tetrachloroethene	**4.0J**	ug/kg	4.9	1.7	1		10/23/15 18:12	127-18-4	
Toluene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.1	1		10/23/15 18:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		10/23/15 18:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.0	1		10/23/15 18:12	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.0	1		10/23/15 18:12	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.1	1		10/23/15 18:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		10/23/15 18:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	1.9	1		10/23/15 18:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	108-67-8	
Vinyl acetate	ND	ug/kg	48.7	8.6	1		10/23/15 18:12	108-05-4	
Vinyl chloride	ND	ug/kg	9.7	1.8	1		10/23/15 18:12	75-01-4	
Xylene (Total)	ND	ug/kg	9.7	3.5	1		10/23/15 18:12	1330-20-7	
m&p-Xylene	ND	ug/kg	9.7	3.5	1		10/23/15 18:12	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.8	1		10/23/15 18:12	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/23/15 18:12	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/23/15 18:12	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		10/23/15 18:12	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.2**	%	0.10	0.10	1		10/22/15 12:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-21 (3-5) **Lab ID: 92272696016** Collected: 10/20/15 11:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**53.2J**	ug/kg	170	17.0	1		10/22/15 13:47	67-64-1	
Benzene	ND	ug/kg	8.5	2.7	1		10/22/15 13:47	71-43-2	
Bromobenzene	ND	ug/kg	8.5	3.4	1		10/22/15 13:47	108-86-1	
Bromochloromethane	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	74-97-5	
Bromodichloromethane	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	75-27-4	
Bromoform	ND	ug/kg	8.5	3.9	1		10/22/15 13:47	75-25-2	
Bromomethane	ND	ug/kg	17.0	4.2	1		10/22/15 13:47	74-83-9	
2-Butanone (MEK)	ND	ug/kg	170	4.9	1		10/22/15 13:47	78-93-3	
n-Butylbenzene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	104-51-8	
sec-Butylbenzene	ND	ug/kg	8.5	2.7	1		10/22/15 13:47	135-98-8	
tert-Butylbenzene	ND	ug/kg	8.5	3.4	1		10/22/15 13:47	98-06-6	
Carbon tetrachloride	ND	ug/kg	8.5	4.4	1		10/22/15 13:47	56-23-5	
Chlorobenzene	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	108-90-7	
Chloroethane	ND	ug/kg	17.0	4.1	1		10/22/15 13:47	75-00-3	
Chloroform	ND	ug/kg	8.5	2.7	1		10/22/15 13:47	67-66-3	
Chloromethane	ND	ug/kg	17.0	4.1	1		10/22/15 13:47	74-87-3	
2-Chlorotoluene	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	95-49-8	
4-Chlorotoluene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	8.5	6.1	1		10/22/15 13:47	96-12-8	
Dibromochloromethane	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	106-93-4	
Dibromomethane	ND	ug/kg	8.5	4.2	1		10/22/15 13:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	8.5	3.4	1		10/22/15 13:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	17.0	6.1	1		10/22/15 13:47	75-71-8	
1,1-Dichloroethane	ND	ug/kg	8.5	2.5	1		10/22/15 13:47	75-34-3	
1,2-Dichloroethane	ND	ug/kg	8.5	3.7	1		10/22/15 13:47	107-06-2	
1,1-Dichloroethene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	8.5	2.4	1		10/22/15 13:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	156-60-5	
1,2-Dichloropropane	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	78-87-5	
1,3-Dichloropropane	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	142-28-9	
2,2-Dichloropropane	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	594-20-7	
1,1-Dichloropropene	ND	ug/kg	8.5	2.5	1		10/22/15 13:47	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	8.5	2.5	1		10/22/15 13:47	10061-02-6	
Diisopropyl ether	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	255	204	1		10/22/15 13:47	123-91-1	
Ethylbenzene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	8.5	3.4	1		10/22/15 13:47	87-68-3	
2-Hexanone	ND	ug/kg	84.9	6.6	1		10/22/15 13:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	98-82-8	
p-Isopropyltoluene	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	99-87-6	
Methylene Chloride	**7.7J**	ug/kg	34.0	5.1	1		10/22/15 13:47	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-21 (3-5) **Lab ID: 92272696016** Collected: 10/20/15 11:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	84.9	6.3	1		10/22/15 13:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	8.5	2.5	1		10/22/15 13:47	1634-04-4	
Naphthalene	ND	ug/kg	8.5	2.0	1		10/22/15 13:47	91-20-3	
n-Propylbenzene	ND	ug/kg	8.5	2.9	1		10/22/15 13:47	103-65-1	
Styrene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	8.5	3.6	1		10/22/15 13:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	79-34-5	
Tetrachloroethene	**3.1J**	ug/kg	8.5	2.9	1		10/22/15 13:47	127-18-4	
Toluene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	8.5	3.7	1		10/22/15 13:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	8.5	2.7	1		10/22/15 13:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	8.5	3.6	1		10/22/15 13:47	79-00-5	
Trichloroethene	ND	ug/kg	8.5	3.6	1		10/22/15 13:47	79-01-6	
Trichlorofluoromethane	ND	ug/kg	8.5	3.7	1		10/22/15 13:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	8.5	2.7	1		10/22/15 13:47	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	8.5	3.4	1		10/22/15 13:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	8.5	3.1	1		10/22/15 13:47	108-67-8	
Vinyl acetate	ND	ug/kg	84.9	14.9	1		10/22/15 13:47	108-05-4	L2
Vinyl chloride	ND	ug/kg	17.0	3.1	1		10/22/15 13:47	75-01-4	
Xylene (Total)	ND	ug/kg	17.0	6.1	1		10/22/15 13:47	1330-20-7	
m&p-Xylene	ND	ug/kg	17.0	6.1	1		10/22/15 13:47	179601-23-1	
o-Xylene	ND	ug/kg	8.5	3.2	1		10/22/15 13:47	95-47-6	
Surrogates									
Toluene-d8 (S)	114	%	70-130		1		10/22/15 13:47	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 13:47	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		10/22/15 13:47	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		10/22/15 12:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (3-5) **Lab ID: 92272696017** Collected: 10/20/15 12:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**31.3J**	ug/kg	107	10.7	1		10/22/15 14:07	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/22/15 14:07	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.1	1		10/22/15 14:07	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/22/15 14:07	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		10/22/15 14:07	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1		10/22/15 14:07	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/22/15 14:07	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.1	1		10/22/15 14:07	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/22/15 14:07	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		10/22/15 14:07	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/22/15 14:07	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		10/22/15 14:07	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/22/15 14:07	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/22/15 14:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/22/15 14:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.9	1		10/22/15 14:07	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/22/15 14:07	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/22/15 14:07	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/22/15 14:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/22/15 14:07	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/22/15 14:07	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	161	129	1		10/22/15 14:07	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.1	1		10/22/15 14:07	87-68-3	
2-Hexanone	ND	ug/kg	53.6	4.2	1		10/22/15 14:07	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	99-87-6	
Methylene Chloride	**4.3J**	ug/kg	21.4	3.2	1		10/22/15 14:07	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (3-5) **Lab ID: 92272696017** Collected: 10/20/15 12:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.6	4.0	1		10/22/15 14:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/22/15 14:07	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/22/15 14:07	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.2	1		10/22/15 14:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/22/15 14:07	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/22/15 14:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/22/15 14:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.2	1		10/22/15 14:07	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.2	1		10/22/15 14:07	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/22/15 14:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/22/15 14:07	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.1	1		10/22/15 14:07	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 14:07	108-67-8	
Vinyl acetate	ND	ug/kg	53.6	9.4	1		10/22/15 14:07	108-05-4	L2
Vinyl chloride	ND	ug/kg	10.7	1.9	1		10/22/15 14:07	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.9	1		10/22/15 14:07	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.9	1		10/22/15 14:07	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.0	1		10/22/15 14:07	95-47-6	
Surrogates									
Toluene-d8 (S)	109	%	70-130		1		10/22/15 14:07	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/22/15 14:07	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-132		1		10/22/15 14:07	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.4**	%	0.10	0.10	1		10/22/15 12:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: TRIP BLANK 04 **Lab ID: 92272696018** Collected: 10/20/15 11:55 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**15.5J**	ug/kg	100	10.0	1		10/22/15 14:26	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/22/15 14:26	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 14:26	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/22/15 14:26	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/22/15 14:26	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		10/22/15 14:26	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/22/15 14:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 14:26	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/22/15 14:26	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/22/15 14:26	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/22/15 14:26	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/22/15 14:26	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/22/15 14:26	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/22/15 14:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 14:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/22/15 14:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/22/15 14:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/22/15 14:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/22/15 14:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 14:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 14:26	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/22/15 14:26	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/22/15 14:26	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/22/15 14:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	99-87-6	
Methylene Chloride	ND	ug/kg	20.0	3.0	1		10/22/15 14:26	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: TRIP BLANK 04 **Lab ID: 92272696018** Collected: 10/20/15 11:55 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/22/15 14:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/22/15 14:26	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/22/15 14:26	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 14:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/22/15 14:26	127-18-4	
Toluene	**2.8J**	ug/kg	5.0	1.8	1		10/22/15 14:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/22/15 14:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/22/15 14:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 14:26	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/22/15 14:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/22/15 14:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/22/15 14:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 14:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 14:26	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/22/15 14:26	108-05-4	L2
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/22/15 14:26	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/22/15 14:26	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/22/15 14:26	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/22/15 14:26	95-47-6	
Surrogates									
Toluene-d8 (S)	109	%	70-130		1		10/22/15 14:26	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/22/15 14:26	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		10/22/15 14:26	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (8-10) **Lab ID: 92272696019** Collected: 10/20/15 12:10 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**15.0J**	ug/kg	116	11.6	1		10/22/15 14:46	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		10/22/15 14:46	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/22/15 14:46	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/22/15 14:46	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		10/22/15 14:46	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		10/22/15 14:46	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		10/22/15 14:46	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/22/15 14:46	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/22/15 14:46	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		10/22/15 14:46	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		10/22/15 14:46	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		10/22/15 14:46	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/22/15 14:46	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/22/15 14:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/22/15 14:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		10/22/15 14:46	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/22/15 14:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.6	1		10/22/15 14:46	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/22/15 14:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/22/15 14:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/22/15 14:46	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	174	139	1		10/22/15 14:46	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/22/15 14:46	87-68-3	
2-Hexanone	ND	ug/kg	58.0	4.5	1		10/22/15 14:46	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	99-87-6	
Methylene Chloride	**5.5J**	ug/kg	23.2	3.5	1		10/22/15 14:46	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (8-10) **Lab ID: 92272696019** Collected: 10/20/15 12:10 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.0	4.3	1		10/22/15 14:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/22/15 14:46	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/22/15 14:46	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/22/15 14:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/22/15 14:46	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.6	1		10/22/15 14:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		10/22/15 14:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/22/15 14:46	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/22/15 14:46	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.6	1		10/22/15 14:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		10/22/15 14:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/22/15 14:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 14:46	108-67-8	
Vinyl acetate	ND	ug/kg	58.0	10.2	1		10/22/15 14:46	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.6	2.1	1		10/22/15 14:46	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		10/22/15 14:46	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		10/22/15 14:46	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/22/15 14:46	95-47-6	
Surrogates									
Toluene-d8 (S)	112	%	70-130		1		10/22/15 14:46	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/22/15 14:46	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		10/22/15 14:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.7**	%	0.10	0.10	1		10/22/15 12:40		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-24 (0-2) **Lab ID: 92272696020** Collected: 10/20/15 12:05 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**49.7J**	ug/kg	138	13.8	1		10/22/15 15:06	67-64-1	
Benzene	ND	ug/kg	6.9	2.2	1		10/22/15 15:06	71-43-2	
Bromobenzene	ND	ug/kg	6.9	2.8	1		10/22/15 15:06	108-86-1	
Bromochloromethane	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	74-97-5	
Bromodichloromethane	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	75-27-4	
Bromoform	ND	ug/kg	6.9	3.2	1		10/22/15 15:06	75-25-2	
Bromomethane	ND	ug/kg	13.8	3.4	1		10/22/15 15:06	74-83-9	
2-Butanone (MEK)	ND	ug/kg	138	4.0	1		10/22/15 15:06	78-93-3	
n-Butylbenzene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.9	2.2	1		10/22/15 15:06	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.9	2.8	1		10/22/15 15:06	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.9	3.6	1		10/22/15 15:06	56-23-5	
Chlorobenzene	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	108-90-7	
Chloroethane	ND	ug/kg	13.8	3.3	1		10/22/15 15:06	75-00-3	
Chloroform	ND	ug/kg	6.9	2.2	1		10/22/15 15:06	67-66-3	
Chloromethane	ND	ug/kg	13.8	3.3	1		10/22/15 15:06	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.9	5.0	1		10/22/15 15:06	96-12-8	
Dibromochloromethane	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	106-93-4	
Dibromomethane	ND	ug/kg	6.9	3.4	1		10/22/15 15:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.9	2.8	1		10/22/15 15:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.8	5.0	1		10/22/15 15:06	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.9	2.1	1		10/22/15 15:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.9	3.0	1		10/22/15 15:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.9	1.9	1		10/22/15 15:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.9	2.1	1		10/22/15 15:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.9	2.1	1		10/22/15 15:06	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	206	165	1		10/22/15 15:06	123-91-1	
Ethylbenzene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.9	2.8	1		10/22/15 15:06	87-68-3	
2-Hexanone	ND	ug/kg	68.8	5.4	1		10/22/15 15:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	99-87-6	
Methylene Chloride	**5.0J**	ug/kg	27.5	4.1	1		10/22/15 15:06	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-24 (0-2) **Lab ID: 92272696020** Collected: 10/20/15 12:05 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	68.8	5.1	1		10/22/15 15:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.9	2.1	1		10/22/15 15:06	1634-04-4	
Naphthalene	ND	ug/kg	6.9	1.7	1		10/22/15 15:06	91-20-3	
n-Propylbenzene	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	103-65-1	
Styrene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.9	2.9	1		10/22/15 15:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	79-34-5	
Tetrachloroethene	ND	ug/kg	6.9	2.3	1		10/22/15 15:06	127-18-4	
Toluene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.9	3.0	1		10/22/15 15:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.9	2.2	1		10/22/15 15:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.9	2.9	1		10/22/15 15:06	79-00-5	
Trichloroethene	ND	ug/kg	6.9	2.9	1		10/22/15 15:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.9	3.0	1		10/22/15 15:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.9	2.2	1		10/22/15 15:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.9	2.8	1		10/22/15 15:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.9	2.5	1		10/22/15 15:06	108-67-8	
Vinyl acetate	ND	ug/kg	68.8	12.1	1		10/22/15 15:06	108-05-4	L2
Vinyl chloride	ND	ug/kg	13.8	2.5	1		10/22/15 15:06	75-01-4	
Xylene (Total)	ND	ug/kg	13.8	5.0	1		10/22/15 15:06	1330-20-7	
m&p-Xylene	ND	ug/kg	13.8	5.0	1		10/22/15 15:06	179601-23-1	
o-Xylene	ND	ug/kg	6.9	2.6	1		10/22/15 15:06	95-47-6	
Surrogates									
Toluene-d8 (S)	109	%	70-130		1		10/22/15 15:06	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/22/15 15:06	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-132		1		10/22/15 15:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.7**	%	0.10	0.10	1		10/22/15 12:40		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-17 (18-20) **Lab ID: 92272696021** Collected: 10/20/15 11:40 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**36.8J**	ug/kg	132	13.2	1		10/22/15 15:26	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		10/22/15 15:26	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 15:26	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		10/22/15 15:26	75-25-2	
Bromomethane	ND	ug/kg	13.2	3.3	1		10/22/15 15:26	74-83-9	
2-Butanone (MEK)	ND	ug/kg	132	3.8	1		10/22/15 15:26	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		10/22/15 15:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 15:26	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		10/22/15 15:26	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	108-90-7	
Chloroethane	ND	ug/kg	13.2	3.2	1		10/22/15 15:26	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		10/22/15 15:26	67-66-3	
Chloromethane	ND	ug/kg	13.2	3.2	1		10/22/15 15:26	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.8	1		10/22/15 15:26	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		10/22/15 15:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 15:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.2	4.8	1		10/22/15 15:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		10/22/15 15:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		10/22/15 15:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.9	1		10/22/15 15:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 15:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 15:26	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	199	159	1		10/22/15 15:26	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		10/22/15 15:26	87-68-3	
2-Hexanone	ND	ug/kg	66.2	5.2	1		10/22/15 15:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	99-87-6	
Methylene Chloride	**9.9J**	ug/kg	26.5	4.0	1		10/22/15 15:26	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-17 (18-20) **Lab ID: 92272696021** Collected: 10/20/15 11:40 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	66.2	4.9	1		10/22/15 15:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		10/22/15 15:26	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		10/22/15 15:26	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 15:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.3	1		10/22/15 15:26	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		10/22/15 15:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		10/22/15 15:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 15:26	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		10/22/15 15:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		10/22/15 15:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		10/22/15 15:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 15:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 15:26	108-67-8	
Vinyl acetate	ND	ug/kg	66.2	11.7	1		10/22/15 15:26	108-05-4	L2
Vinyl chloride	ND	ug/kg	13.2	2.4	1		10/22/15 15:26	75-01-4	
Xylene (Total)	ND	ug/kg	13.2	4.8	1		10/22/15 15:26	1330-20-7	
m&p-Xylene	ND	ug/kg	13.2	4.8	1		10/22/15 15:26	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		10/22/15 15:26	95-47-6	
Surrogates									
Toluene-d8 (S)	116	%	70-130		1		10/22/15 15:26	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/22/15 15:26	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		10/22/15 15:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.0**	%	0.10	0.10	1		10/22/15 12:40		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-17 (23-25) **Lab ID: 92272696022** Collected: 10/20/15 11:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**18.8J**	ug/kg	114	11.4	1		10/22/15 15:45	67-64-1	M1
Benzene	ND	ug/kg	5.7	1.8	1		10/22/15 15:45	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		10/22/15 15:45	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		10/22/15 15:45	75-25-2	
Bromomethane	ND	ug/kg	11.4	2.9	1		10/22/15 15:45	74-83-9	M1
2-Butanone (MEK)	ND	ug/kg	114	3.3	1		10/22/15 15:45	78-93-3	M1
n-Butylbenzene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		10/22/15 15:45	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		10/22/15 15:45	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	3.0	1		10/22/15 15:45	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	108-90-7	
Chloroethane	ND	ug/kg	11.4	2.7	1		10/22/15 15:45	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		10/22/15 15:45	67-66-3	
Chloromethane	ND	ug/kg	11.4	2.7	1		10/22/15 15:45	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		10/22/15 15:45	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.9	1		10/22/15 15:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		10/22/15 15:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.4	4.1	1		10/22/15 15:45	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		10/22/15 15:45	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		10/22/15 15:45	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		10/22/15 15:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		10/22/15 15:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		10/22/15 15:45	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	172	137	1		10/22/15 15:45	123-91-1	
Ethylbenzene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		10/22/15 15:45	87-68-3	
2-Hexanone	ND	ug/kg	57.2	4.5	1		10/22/15 15:45	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	99-87-6	
Methylene Chloride	**5.6J**	ug/kg	22.9	3.4	1		10/22/15 15:45	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-17 (23-25) **Lab ID: 92272696022** Collected: 10/20/15 11:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.2	4.2	1		10/22/15 15:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		10/22/15 15:45	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		10/22/15 15:45	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	103-65-1	
Styrene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		10/22/15 15:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1.9	1		10/22/15 15:45	127-18-4	
Toluene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		10/22/15 15:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		10/22/15 15:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		10/22/15 15:45	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		10/22/15 15:45	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		10/22/15 15:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		10/22/15 15:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		10/22/15 15:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.1	1		10/22/15 15:45	108-67-8	
Vinyl acetate	ND	ug/kg	57.2	10.1	1		10/22/15 15:45	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.4	2.1	1		10/22/15 15:45	75-01-4	
Xylene (Total)	ND	ug/kg	11.4	4.1	1		10/22/15 15:45	1330-20-7	
m&p-Xylene	ND	ug/kg	11.4	4.1	1		10/22/15 15:45	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.2	1		10/22/15 15:45	95-47-6	
Surrogates									
Toluene-d8 (S)	113	%	70-130		1		10/22/15 15:45	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 15:45	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/22/15 15:45	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.4**	%	0.10	0.10	1		10/22/15 12:40		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-17 (28-30) **Lab ID: 92272696023** Collected: 10/20/15 11:50 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**17.1J**	ug/kg	116	11.6	1		10/22/15 16:05	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		10/22/15 16:05	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/22/15 16:05	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/22/15 16:05	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		10/22/15 16:05	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		10/22/15 16:05	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		10/22/15 16:05	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/22/15 16:05	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/22/15 16:05	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		10/22/15 16:05	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		10/22/15 16:05	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		10/22/15 16:05	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/22/15 16:05	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/22/15 16:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/22/15 16:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		10/22/15 16:05	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/22/15 16:05	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.5	1		10/22/15 16:05	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/22/15 16:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/22/15 16:05	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/22/15 16:05	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	174	139	1		10/22/15 16:05	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/22/15 16:05	87-68-3	
2-Hexanone	ND	ug/kg	57.9	4.5	1		10/22/15 16:05	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	99-87-6	
Methylene Chloride	ND	ug/kg	23.1	3.5	1		10/22/15 16:05	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-17 (28-30) **Lab ID: 92272696023** Collected: 10/20/15 11:50 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.9	4.3	1		10/22/15 16:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/22/15 16:05	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/22/15 16:05	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/22/15 16:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/22/15 16:05	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.5	1		10/22/15 16:05	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		10/22/15 16:05	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/22/15 16:05	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/22/15 16:05	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.5	1		10/22/15 16:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		10/22/15 16:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/22/15 16:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/22/15 16:05	108-67-8	
Vinyl acetate	ND	ug/kg	57.9	10.2	1		10/22/15 16:05	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.6	2.1	1		10/22/15 16:05	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		10/22/15 16:05	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		10/22/15 16:05	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/22/15 16:05	95-47-6	
Surrogates									
Toluene-d8 (S)	105	%	70-130		1		10/22/15 16:05	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/15 16:05	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/22/15 16:05	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10**	%	0.10	0.10	1		10/22/15 12:42		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (0-2) **Lab ID: 92272696024** Collected: 10/20/15 12:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**85.3J**	ug/kg	105	10.5	1		10/22/15 16:25	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1		10/22/15 16:25	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		10/22/15 16:25	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	75-27-4	
Bromoform	ND	ug/kg	5.3	2.4	1		10/22/15 16:25	75-25-2	
Bromomethane	ND	ug/kg	10.5	2.6	1		10/22/15 16:25	74-83-9	
2-Butanone (MEK)	ND	ug/kg	105	3.1	1		10/22/15 16:25	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		10/22/15 16:25	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		10/22/15 16:25	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.7	1		10/22/15 16:25	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	108-90-7	
Chloroethane	ND	ug/kg	10.5	2.5	1		10/22/15 16:25	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		10/22/15 16:25	67-66-3	
Chloromethane	ND	ug/kg	10.5	2.5	1		10/22/15 16:25	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		10/22/15 16:25	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.6	1		10/22/15 16:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		10/22/15 16:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.5	3.8	1		10/22/15 16:25	75-71-8	
1,1-Dichloroethane	**2.3J**	ug/kg	5.3	1.6	1		10/22/15 16:25	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.3	1		10/22/15 16:25	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	75-35-4	
cis-1,2-Dichloroethene	**1.6J**	ug/kg	5.3	1.5	1		10/22/15 16:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/22/15 16:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/22/15 16:25	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	158	126	1		10/22/15 16:25	123-91-1	
Ethylbenzene	**5.8**	ug/kg	5.3	1.9	1		10/22/15 16:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		10/22/15 16:25	87-68-3	
2-Hexanone	ND	ug/kg	52.6	4.1	1		10/22/15 16:25	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	99-87-6	
Methylene Chloride	**8.7J**	ug/kg	21.0	3.2	1		10/22/15 16:25	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (0-2) **Lab ID: 92272696024** Collected: 10/20/15 12:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.6	3.9	1		10/22/15 16:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		10/22/15 16:25	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		10/22/15 16:25	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		10/22/15 16:25	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		10/22/15 16:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		10/22/15 16:25	79-34-5	
Tetrachloroethene	**2.8J**	ug/kg	5.3	1.8	1		10/22/15 16:25	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.3	1		10/22/15 16:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		10/22/15 16:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		10/22/15 16:25	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1		10/22/15 16:25	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.3	1		10/22/15 16:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		10/22/15 16:25	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		10/22/15 16:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		10/22/15 16:25	108-67-8	
Vinyl acetate	ND	ug/kg	52.6	9.3	1		10/22/15 16:25	108-05-4	L2
Vinyl chloride	ND	ug/kg	10.5	1.9	1		10/22/15 16:25	75-01-4	
Xylene (Total)	**43.2**	ug/kg	10.5	3.8	1		10/22/15 16:25	1330-20-7	
m&p-Xylene	**16.7**	ug/kg	10.5	3.8	1		10/22/15 16:25	179601-23-1	
o-Xylene	**26.5**	ug/kg	5.3	2.0	1		10/22/15 16:25	95-47-6	
Surrogates									
Toluene-d8 (S)	112	%	70-130		1		10/22/15 16:25	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/15 16:25	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/22/15 16:25	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.8**	%	0.10	0.10	1		10/22/15 12:43		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (3-5) **Lab ID: 92272696025** Collected: 10/20/15 12:05 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.0J**	ug/kg	110	11.0	1		10/22/15 16:45	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		10/22/15 16:45	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/22/15 16:45	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/22/15 16:45	75-25-2	
Bromomethane	ND	ug/kg	11.0	2.8	1		10/22/15 16:45	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	3.2	1		10/22/15 16:45	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		10/22/15 16:45	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/22/15 16:45	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		10/22/15 16:45	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	108-90-7	
Chloroethane	ND	ug/kg	11.0	2.7	1		10/22/15 16:45	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		10/22/15 16:45	67-66-3	
Chloromethane	ND	ug/kg	11.0	2.7	1		10/22/15 16:45	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		10/22/15 16:45	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.8	1		10/22/15 16:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/22/15 16:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	4.0	1		10/22/15 16:45	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.7	1		10/22/15 16:45	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/22/15 16:45	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1.5	1		10/22/15 16:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.7	1		10/22/15 16:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.7	1		10/22/15 16:45	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	166	133	1		10/22/15 16:45	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/22/15 16:45	87-68-3	
2-Hexanone	ND	ug/kg	55.2	4.3	1		10/22/15 16:45	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	99-87-6	
Methylene Chloride	**6.2J**	ug/kg	22.1	3.3	1		10/22/15 16:45	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (3-5) **Lab ID: 92272696025** Collected: 10/20/15 12:05 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.2	4.1	1		10/22/15 16:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.7	1		10/22/15 16:45	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/22/15 16:45	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/22/15 16:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	79-34-5	
Tetrachloroethene	ND	ug/kg	5.5	1.9	1		10/22/15 16:45	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/22/15 16:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		10/22/15 16:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/22/15 16:45	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		10/22/15 16:45	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/22/15 16:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		10/22/15 16:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/22/15 16:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/22/15 16:45	108-67-8	
Vinyl acetate	ND	ug/kg	55.2	9.7	1		10/22/15 16:45	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.0	2.0	1		10/22/15 16:45	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	4.0	1		10/22/15 16:45	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	4.0	1		10/22/15 16:45	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/22/15 16:45	95-47-6	
Surrogates									
Toluene-d8 (S)	112	%	70-130		1		10/22/15 16:45	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/22/15 16:45	460-00-4	
1,2-Dichloroethane-d4 (S)	120	%	70-132		1		10/22/15 16:45	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.1**	%	0.10	0.10	1		10/22/15 12:43		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (8-10) **Lab ID: 92272696026** Collected: 10/20/15 12:10 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**39.1J**	ug/kg	138	13.8	1		10/22/15 17:04	67-64-1	
Benzene	ND	ug/kg	6.9	2.2	1		10/22/15 17:04	71-43-2	
Bromobenzene	ND	ug/kg	6.9	2.8	1		10/22/15 17:04	108-86-1	
Bromochloromethane	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	74-97-5	
Bromodichloromethane	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	75-27-4	
Bromoform	ND	ug/kg	6.9	3.2	1		10/22/15 17:04	75-25-2	
Bromomethane	ND	ug/kg	13.8	3.5	1		10/22/15 17:04	74-83-9	
2-Butanone (MEK)	ND	ug/kg	138	4.0	1		10/22/15 17:04	78-93-3	
n-Butylbenzene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.9	2.2	1		10/22/15 17:04	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.9	2.8	1		10/22/15 17:04	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.9	3.6	1		10/22/15 17:04	56-23-5	
Chlorobenzene	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	108-90-7	
Chloroethane	ND	ug/kg	13.8	3.3	1		10/22/15 17:04	75-00-3	
Chloroform	ND	ug/kg	6.9	2.2	1		10/22/15 17:04	67-66-3	
Chloromethane	ND	ug/kg	13.8	3.3	1		10/22/15 17:04	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.9	5.0	1		10/22/15 17:04	96-12-8	
Dibromochloromethane	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	106-93-4	
Dibromomethane	ND	ug/kg	6.9	3.5	1		10/22/15 17:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.9	2.8	1		10/22/15 17:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.8	5.0	1		10/22/15 17:04	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.9	2.1	1		10/22/15 17:04	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.9	3.0	1		10/22/15 17:04	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.9	1.9	1		10/22/15 17:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.9	2.1	1		10/22/15 17:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.9	2.1	1		10/22/15 17:04	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	207	166	1		10/22/15 17:04	123-91-1	
Ethylbenzene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.9	2.8	1		10/22/15 17:04	87-68-3	
2-Hexanone	ND	ug/kg	69.1	5.4	1		10/22/15 17:04	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	99-87-6	
Methylene Chloride	**8.7J**	ug/kg	27.6	4.1	1		10/22/15 17:04	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (8-10) **Lab ID: 92272696026** Collected: 10/20/15 12:10 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	69.1	5.1	1		10/22/15 17:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.9	2.1	1		10/22/15 17:04	1634-04-4	
Naphthalene	ND	ug/kg	6.9	1.7	1		10/22/15 17:04	91-20-3	
n-Propylbenzene	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	103-65-1	
Styrene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.9	2.9	1		10/22/15 17:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	79-34-5	
Tetrachloroethene	ND	ug/kg	6.9	2.3	1		10/22/15 17:04	127-18-4	
Toluene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.9	3.0	1		10/22/15 17:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.9	2.2	1		10/22/15 17:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.9	2.9	1		10/22/15 17:04	79-00-5	
Trichloroethene	ND	ug/kg	6.9	2.9	1		10/22/15 17:04	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.9	3.0	1		10/22/15 17:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.9	2.2	1		10/22/15 17:04	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.9	2.8	1		10/22/15 17:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.9	2.5	1		10/22/15 17:04	108-67-8	
Vinyl acetate	ND	ug/kg	69.1	12.2	1		10/22/15 17:04	108-05-4	L2
Vinyl chloride	ND	ug/kg	13.8	2.5	1		10/22/15 17:04	75-01-4	
Xylene (Total)	ND	ug/kg	13.8	5.0	1		10/22/15 17:04	1330-20-7	
m&p-Xylene	ND	ug/kg	13.8	5.0	1		10/22/15 17:04	179601-23-1	
o-Xylene	ND	ug/kg	6.9	2.6	1		10/22/15 17:04	95-47-6	
Surrogates									
Toluene-d8 (S)	108	%	70-130		1		10/22/15 17:04	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/22/15 17:04	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/22/15 17:04	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.6**	%	0.10	0.10	1		10/22/15 12:43		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (13-15) **Lab ID: 92272696027** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**16.6J**	ug/kg	110	11.0	1		10/22/15 17:24	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		10/22/15 17:24	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/22/15 17:24	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/22/15 17:24	75-25-2	
Bromomethane	ND	ug/kg	11.0	2.8	1		10/22/15 17:24	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	3.2	1		10/22/15 17:24	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		10/22/15 17:24	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/22/15 17:24	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		10/22/15 17:24	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	108-90-7	
Chloroethane	ND	ug/kg	11.0	2.6	1		10/22/15 17:24	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		10/22/15 17:24	67-66-3	
Chloromethane	ND	ug/kg	11.0	2.6	1		10/22/15 17:24	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		10/22/15 17:24	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.8	1		10/22/15 17:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/22/15 17:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	4.0	1		10/22/15 17:24	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.7	1		10/22/15 17:24	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/22/15 17:24	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1.5	1		10/22/15 17:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.7	1		10/22/15 17:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.7	1		10/22/15 17:24	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	165	132	1		10/22/15 17:24	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/22/15 17:24	87-68-3	
2-Hexanone	ND	ug/kg	55.0	4.3	1		10/22/15 17:24	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	99-87-6	
Methylene Chloride	**6.7J**	ug/kg	22.0	3.3	1		10/22/15 17:24	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-27 (13-15) **Lab ID: 92272696027** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.0	4.1	1		10/22/15 17:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.7	1		10/22/15 17:24	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/22/15 17:24	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/22/15 17:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	79-34-5	
Tetrachloroethene	ND	ug/kg	5.5	1.9	1		10/22/15 17:24	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/22/15 17:24	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		10/22/15 17:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/22/15 17:24	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		10/22/15 17:24	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/22/15 17:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		10/22/15 17:24	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/22/15 17:24	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/22/15 17:24	108-67-8	
Vinyl acetate	ND	ug/kg	55.0	9.7	1		10/22/15 17:24	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.0	2.0	1		10/22/15 17:24	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	4.0	1		10/22/15 17:24	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	4.0	1		10/22/15 17:24	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/22/15 17:24	95-47-6	
Surrogates									
Toluene-d8 (S)	111	%	70-130		1		10/22/15 17:24	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/15 17:24	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-132		1		10/22/15 17:24	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.6**	%	0.10	0.10	1		10/22/15 12:43		

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-24 (3-5) **Lab ID: 92272696028** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**36.3J**	ug/kg	125	12.5	1		10/22/15 17:44	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		10/22/15 17:44	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		10/22/15 17:44	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		10/22/15 17:44	75-25-2	
Bromomethane	ND	ug/kg	12.5	3.1	1		10/22/15 17:44	74-83-9	
2-Butanone (MEK)	ND	ug/kg	125	3.6	1		10/22/15 17:44	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		10/22/15 17:44	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		10/22/15 17:44	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		10/22/15 17:44	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	108-90-7	
Chloroethane	ND	ug/kg	12.5	3.0	1		10/22/15 17:44	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		10/22/15 17:44	67-66-3	
Chloromethane	ND	ug/kg	12.5	3.0	1		10/22/15 17:44	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.5	1		10/22/15 17:44	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.1	1		10/22/15 17:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		10/22/15 17:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.5	4.5	1		10/22/15 17:44	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		10/22/15 17:44	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		10/22/15 17:44	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.3	1.8	1		10/22/15 17:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		10/22/15 17:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		10/22/15 17:44	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	188	150	1		10/22/15 17:44	123-91-1	
Ethylbenzene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		10/22/15 17:44	87-68-3	
2-Hexanone	ND	ug/kg	62.6	4.9	1		10/22/15 17:44	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	99-87-6	
Methylene Chloride	**7.0J**	ug/kg	25.0	3.8	1		10/22/15 17:44	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-24 (3-5) **Lab ID: 92272696028** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	62.6	4.6	1		10/22/15 17:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		10/22/15 17:44	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		10/22/15 17:44	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.6	1		10/22/15 17:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.1	1		10/22/15 17:44	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		10/22/15 17:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		10/22/15 17:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.6	1		10/22/15 17:44	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.6	1		10/22/15 17:44	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		10/22/15 17:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		10/22/15 17:44	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		10/22/15 17:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		10/22/15 17:44	108-67-8	
Vinyl acetate	ND	ug/kg	62.6	11.0	1		10/22/15 17:44	108-05-4	L2
Vinyl chloride	ND	ug/kg	12.5	2.3	1		10/22/15 17:44	75-01-4	
Xylene (Total)	ND	ug/kg	12.5	4.5	1		10/22/15 17:44	1330-20-7	
m&p-Xylene	ND	ug/kg	12.5	4.5	1		10/22/15 17:44	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		10/22/15 17:44	95-47-6	
Surrogates									
Toluene-d8 (S)	119	%	70-130		1		10/22/15 17:44	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/22/15 17:44	460-00-4	
1,2-Dichloroethane-d4 (S)	123	%	70-132		1		10/22/15 17:44	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.3**	%	0.10	0.10	1		10/22/15 12:43		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (13-15) **Lab ID: 92272696029** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**28.1J**	ug/kg	133	13.3	1		10/22/15 18:03	67-64-1	
Benzene	ND	ug/kg	6.7	2.1	1		10/22/15 18:03	71-43-2	
Bromobenzene	ND	ug/kg	6.7	2.7	1		10/22/15 18:03	108-86-1	
Bromochloromethane	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	74-97-5	
Bromodichloromethane	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	75-27-4	
Bromoform	ND	ug/kg	6.7	3.1	1		10/22/15 18:03	75-25-2	
Bromomethane	ND	ug/kg	13.3	3.3	1		10/22/15 18:03	74-83-9	
2-Butanone (MEK)	ND	ug/kg	133	3.9	1		10/22/15 18:03	78-93-3	
n-Butylbenzene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.7	2.1	1		10/22/15 18:03	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.7	2.7	1		10/22/15 18:03	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.7	3.5	1		10/22/15 18:03	56-23-5	
Chlorobenzene	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	108-90-7	
Chloroethane	ND	ug/kg	13.3	3.2	1		10/22/15 18:03	75-00-3	
Chloroform	ND	ug/kg	6.7	2.1	1		10/22/15 18:03	67-66-3	
Chloromethane	ND	ug/kg	13.3	3.2	1		10/22/15 18:03	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.7	4.8	1		10/22/15 18:03	96-12-8	
Dibromochloromethane	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	106-93-4	
Dibromomethane	ND	ug/kg	6.7	3.3	1		10/22/15 18:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.7	2.7	1		10/22/15 18:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.3	4.8	1		10/22/15 18:03	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.7	2.0	1		10/22/15 18:03	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.7	2.9	1		10/22/15 18:03	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.7	1.9	1		10/22/15 18:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.7	2.0	1		10/22/15 18:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.7	2.0	1		10/22/15 18:03	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	200	160	1		10/22/15 18:03	123-91-1	
Ethylbenzene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.7	2.7	1		10/22/15 18:03	87-68-3	
2-Hexanone	ND	ug/kg	66.5	5.2	1		10/22/15 18:03	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	99-87-6	
Methylene Chloride	**6.3J**	ug/kg	26.6	4.0	1		10/22/15 18:03	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (13-15) **Lab ID: 92272696029** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	66.5	4.9	1		10/22/15 18:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.7	2.0	1		10/22/15 18:03	1634-04-4	
Naphthalene	ND	ug/kg	6.7	1.6	1		10/22/15 18:03	91-20-3	
n-Propylbenzene	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	103-65-1	
Styrene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.7	2.8	1		10/22/15 18:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	79-34-5	
Tetrachloroethene	ND	ug/kg	6.7	2.3	1		10/22/15 18:03	127-18-4	
Toluene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.7	2.9	1		10/22/15 18:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.7	2.1	1		10/22/15 18:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.7	2.8	1		10/22/15 18:03	79-00-5	
Trichloroethene	ND	ug/kg	6.7	2.8	1		10/22/15 18:03	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.7	2.9	1		10/22/15 18:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.7	2.1	1		10/22/15 18:03	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.7	2.7	1		10/22/15 18:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.7	2.4	1		10/22/15 18:03	108-67-8	
Vinyl acetate	ND	ug/kg	66.5	11.7	1		10/22/15 18:03	108-05-4	L2
Vinyl chloride	ND	ug/kg	13.3	2.4	1		10/22/15 18:03	75-01-4	
Xylene (Total)	ND	ug/kg	13.3	4.8	1		10/22/15 18:03	1330-20-7	
m&p-Xylene	ND	ug/kg	13.3	4.8	1		10/22/15 18:03	179601-23-1	
o-Xylene	ND	ug/kg	6.7	2.5	1		10/22/15 18:03	95-47-6	
Surrogates									
Toluene-d8 (S)	110	%	70-130		1		10/22/15 18:03	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 18:03	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/22/15 18:03	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.0**	%	0.10	0.10	1		10/22/15 12:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-22 (8-10) **Lab ID: 92272696030** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**33.3J**	ug/kg	122	12.2	1		10/22/15 18:23	67-64-1	
Benzene	ND	ug/kg	6.1	2.0	1		10/22/15 18:23	71-43-2	
Bromobenzene	ND	ug/kg	6.1	2.4	1		10/22/15 18:23	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	74-97-5	
Bromodichloromethane	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	75-27-4	
Bromoform	ND	ug/kg	6.1	2.8	1		10/22/15 18:23	75-25-2	
Bromomethane	ND	ug/kg	12.2	3.1	1		10/22/15 18:23	74-83-9	
2-Butanone (MEK)	ND	ug/kg	122	3.5	1		10/22/15 18:23	78-93-3	
n-Butylbenzene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	2.0	1		10/22/15 18:23	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	2.4	1		10/22/15 18:23	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	3.2	1		10/22/15 18:23	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	108-90-7	
Chloroethane	ND	ug/kg	12.2	2.9	1		10/22/15 18:23	75-00-3	
Chloroform	ND	ug/kg	6.1	2.0	1		10/22/15 18:23	67-66-3	
Chloromethane	ND	ug/kg	12.2	2.9	1		10/22/15 18:23	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	4.4	1		10/22/15 18:23	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	106-93-4	
Dibromomethane	ND	ug/kg	6.1	3.1	1		10/22/15 18:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	2.4	1		10/22/15 18:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.2	4.4	1		10/22/15 18:23	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.1	1.8	1		10/22/15 18:23	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	2.7	1		10/22/15 18:23	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.1	1.7	1		10/22/15 18:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.1	1.8	1		10/22/15 18:23	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1.8	1		10/22/15 18:23	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	183	147	1		10/22/15 18:23	123-91-1	
Ethylbenzene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	2.4	1		10/22/15 18:23	87-68-3	
2-Hexanone	ND	ug/kg	61.1	4.8	1		10/22/15 18:23	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	99-87-6	
Methylene Chloride	**4.9J**	ug/kg	24.4	3.7	1		10/22/15 18:23	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-22 (8-10) **Lab ID: 92272696030** Collected: 10/20/15 12:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61.1	4.5	1		10/22/15 18:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.8	1		10/22/15 18:23	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1.5	1		10/22/15 18:23	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	103-65-1	
Styrene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	2.6	1		10/22/15 18:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	79-34-5	
Tetrachloroethene	ND	ug/kg	6.1	2.1	1		10/22/15 18:23	127-18-4	
Toluene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	2.7	1		10/22/15 18:23	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	2.0	1		10/22/15 18:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	2.6	1		10/22/15 18:23	79-00-5	
Trichloroethene	ND	ug/kg	6.1	2.6	1		10/22/15 18:23	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	2.7	1		10/22/15 18:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	2.0	1		10/22/15 18:23	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	2.4	1		10/22/15 18:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	2.2	1		10/22/15 18:23	108-67-8	
Vinyl acetate	ND	ug/kg	61.1	10.7	1		10/22/15 18:23	108-05-4	L2
Vinyl chloride	ND	ug/kg	12.2	2.2	1		10/22/15 18:23	75-01-4	
Xylene (Total)	ND	ug/kg	12.2	4.4	1		10/22/15 18:23	1330-20-7	
m&p-Xylene	ND	ug/kg	12.2	4.4	1		10/22/15 18:23	179601-23-1	
o-Xylene	ND	ug/kg	6.1	2.3	1		10/22/15 18:23	95-47-6	
Surrogates									
Toluene-d8 (S)	113	%	70-130		1		10/22/15 18:23	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		10/22/15 18:23	460-00-4	
1,2-Dichloroethane-d4 (S)	131	%	70-132		1		10/22/15 18:23	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		10/22/15 12:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-23 (3-5) **Lab ID: 92272696031** Collected: 10/20/15 12:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**14.9J**	ug/kg	120	12.0	1		10/22/15 18:43	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		10/22/15 18:43	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		10/22/15 18:43	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	75-27-4	
Bromoform	ND	ug/kg	6.0	2.8	1		10/22/15 18:43	75-25-2	
Bromomethane	ND	ug/kg	12.0	3.0	1		10/22/15 18:43	74-83-9	
2-Butanone (MEK)	ND	ug/kg	120	3.5	1		10/22/15 18:43	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		10/22/15 18:43	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		10/22/15 18:43	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		10/22/15 18:43	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	108-90-7	
Chloroethane	ND	ug/kg	12.0	2.9	1		10/22/15 18:43	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		10/22/15 18:43	67-66-3	
Chloromethane	ND	ug/kg	12.0	2.9	1		10/22/15 18:43	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		10/22/15 18:43	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		10/22/15 18:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		10/22/15 18:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.0	4.3	1		10/22/15 18:43	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.0	1.8	1		10/22/15 18:43	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.6	1		10/22/15 18:43	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.0	1.7	1		10/22/15 18:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/22/15 18:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/22/15 18:43	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	180	144	1		10/22/15 18:43	123-91-1	
Ethylbenzene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		10/22/15 18:43	87-68-3	
2-Hexanone	ND	ug/kg	60.0	4.7	1		10/22/15 18:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	99-87-6	
Methylene Chloride	**6.5J**	ug/kg	24.0	3.6	1		10/22/15 18:43	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-23 (3-5) **Lab ID: 92272696031** Collected: 10/20/15 12:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.0	4.4	1		10/22/15 18:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		10/22/15 18:43	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		10/22/15 18:43	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	103-65-1	
Styrene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		10/22/15 18:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	79-34-5	
Tetrachloroethene	ND	ug/kg	6.0	2.0	1		10/22/15 18:43	127-18-4	
Toluene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.6	1		10/22/15 18:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		10/22/15 18:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		10/22/15 18:43	79-00-5	
Trichloroethene	ND	ug/kg	6.0	2.5	1		10/22/15 18:43	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.6	1		10/22/15 18:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		10/22/15 18:43	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		10/22/15 18:43	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.2	1		10/22/15 18:43	108-67-8	
Vinyl acetate	ND	ug/kg	60.0	10.6	1		10/22/15 18:43	108-05-4	L2
Vinyl chloride	ND	ug/kg	12.0	2.2	1		10/22/15 18:43	75-01-4	
Xylene (Total)	ND	ug/kg	12.0	4.3	1		10/22/15 18:43	1330-20-7	
m&p-Xylene	ND	ug/kg	12.0	4.3	1		10/22/15 18:43	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		10/22/15 18:43	95-47-6	
Surrogates									
Toluene-d8 (S)	116	%	70-130		1		10/22/15 18:43	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 18:43	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/22/15 18:43	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.4**	%	0.10	0.10	1		10/22/15 12:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (18-20) **Lab ID: 92272696032** Collected: 10/20/15 12:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**17.0J**	ug/kg	113	11.3	1		10/22/15 19:03	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		10/22/15 19:03	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.3	1		10/22/15 19:03	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		10/22/15 19:03	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		10/22/15 19:03	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		10/22/15 19:03	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		10/22/15 19:03	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.3	1		10/22/15 19:03	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		10/22/15 19:03	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		10/22/15 19:03	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		10/22/15 19:03	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		10/22/15 19:03	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.1	1		10/22/15 19:03	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		10/22/15 19:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.3	1		10/22/15 19:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		10/22/15 19:03	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1.7	1		10/22/15 19:03	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.5	1		10/22/15 19:03	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1.6	1		10/22/15 19:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		10/22/15 19:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		10/22/15 19:03	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	169	135	1		10/22/15 19:03	123-91-1	
Ethylbenzene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.3	1		10/22/15 19:03	87-68-3	
2-Hexanone	ND	ug/kg	56.3	4.4	1		10/22/15 19:03	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	99-87-6	
Methylene Chloride	**3.8J**	ug/kg	22.5	3.4	1		10/22/15 19:03	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (18-20) **Lab ID: 92272696032** Collected: 10/20/15 12:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.3	4.2	1		10/22/15 19:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		10/22/15 19:03	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.4	1		10/22/15 19:03	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		10/22/15 19:03	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.4	1		10/22/15 19:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	79-34-5	
Tetrachloroethene	**4.8J**	ug/kg	5.6	1.9	1		10/22/15 19:03	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.5	1		10/22/15 19:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		10/22/15 19:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.4	1		10/22/15 19:03	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.4	1		10/22/15 19:03	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.5	1		10/22/15 19:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		10/22/15 19:03	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.3	1		10/22/15 19:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		10/22/15 19:03	108-67-8	
Vinyl acetate	ND	ug/kg	56.3	9.9	1		10/22/15 19:03	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.3	2.0	1		10/22/15 19:03	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		10/22/15 19:03	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		10/22/15 19:03	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		10/22/15 19:03	95-47-6	
Surrogates									
Toluene-d8 (S)	107	%	70-130		1		10/22/15 19:03	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/15 19:03	460-00-4	
1,2-Dichloroethane-d4 (S)	126	%	70-132		1		10/22/15 19:03	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.7**	%	0.10	0.10	1		10/22/15 12:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-23 (0-2) **Lab ID: 92272696033** Collected: 10/20/15 12:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	132	13.2	1		10/22/15 19:22	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		10/22/15 19:22	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 19:22	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		10/22/15 19:22	75-25-2	
Bromomethane	ND	ug/kg	13.2	3.3	1		10/22/15 19:22	74-83-9	
2-Butanone (MEK)	ND	ug/kg	132	3.8	1		10/22/15 19:22	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		10/22/15 19:22	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 19:22	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		10/22/15 19:22	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	108-90-7	
Chloroethane	ND	ug/kg	13.2	3.2	1		10/22/15 19:22	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		10/22/15 19:22	67-66-3	
Chloromethane	ND	ug/kg	13.2	3.2	1		10/22/15 19:22	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.8	1		10/22/15 19:22	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		10/22/15 19:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		10/22/15 19:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.2	4.8	1		10/22/15 19:22	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		10/22/15 19:22	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		10/22/15 19:22	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.9	1		10/22/15 19:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 19:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/22/15 19:22	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	198	159	1		10/22/15 19:22	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		10/22/15 19:22	87-68-3	
2-Hexanone	ND	ug/kg	66.1	5.2	1		10/22/15 19:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	99-87-6	
Methylene Chloride	**9.5J**	ug/kg	26.4	4.0	1		10/22/15 19:22	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-23 (0-2) **Lab ID: 92272696033** Collected: 10/20/15 12:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	66.1	4.9	1		10/22/15 19:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		10/22/15 19:22	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		10/22/15 19:22	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 19:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		10/22/15 19:22	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		10/22/15 19:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		10/22/15 19:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		10/22/15 19:22	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		10/22/15 19:22	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		10/22/15 19:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		10/22/15 19:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		10/22/15 19:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		10/22/15 19:22	108-67-8	
Vinyl acetate	ND	ug/kg	66.1	11.6	1		10/22/15 19:22	108-05-4	L2
Vinyl chloride	ND	ug/kg	13.2	2.4	1		10/22/15 19:22	75-01-4	
Xylene (Total)	ND	ug/kg	13.2	4.8	1		10/22/15 19:22	1330-20-7	
m&p-Xylene	ND	ug/kg	13.2	4.8	1		10/22/15 19:22	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		10/22/15 19:22	95-47-6	
Surrogates									
Toluene-d8 (S)	112	%	70-130		1		10/22/15 19:22	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 19:22	460-00-4	
1,2-Dichloroethane-d4 (S)	127	%	70-132		1		10/22/15 19:22	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		10/22/15 12:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-22 (13-15) **Lab ID: 92272696034** Collected: 10/20/15 12:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**23.7J**	ug/kg	109	10.9	1		10/22/15 19:42	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/22/15 19:42	75-25-2	
Bromomethane	ND	ug/kg	10.9	2.7	1		10/22/15 19:42	74-83-9	
2-Butanone (MEK)	ND	ug/kg	109	3.2	1		10/22/15 19:42	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/22/15 19:42	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	108-90-7	
Chloroethane	ND	ug/kg	10.9	2.6	1		10/22/15 19:42	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	67-66-3	
Chloromethane	ND	ug/kg	10.9	2.6	1		10/22/15 19:42	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/22/15 19:42	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/22/15 19:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.9	3.9	1		10/22/15 19:42	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/22/15 19:42	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/22/15 19:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	163	131	1		10/22/15 19:42	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	87-68-3	
2-Hexanone	ND	ug/kg	54.4	4.2	1		10/22/15 19:42	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	99-87-6	
Methylene Chloride	**7.4J**	ug/kg	21.8	3.3	1		10/22/15 19:42	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-22 (13-15) **Lab ID: 92272696034** Collected: 10/20/15 12:20 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.4	4.0	1		10/22/15 19:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/22/15 19:42	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/22/15 19:42	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	103-65-1	
Styrene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/22/15 19:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.9	1		10/22/15 19:42	127-18-4	
Toluene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/22/15 19:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/22/15 19:42	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		10/22/15 19:42	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/22/15 19:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/22/15 19:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/22/15 19:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	2.0	1		10/22/15 19:42	108-67-8	
Vinyl acetate	ND	ug/kg	54.4	9.6	1		10/22/15 19:42	108-05-4	L2
Vinyl chloride	ND	ug/kg	10.9	2.0	1		10/22/15 19:42	75-01-4	
Xylene (Total)	ND	ug/kg	10.9	3.9	1		10/22/15 19:42	1330-20-7	
m&p-Xylene	ND	ug/kg	10.9	3.9	1		10/22/15 19:42	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.1	1		10/22/15 19:42	95-47-6	
Surrogates									
Toluene-d8 (S)	111	%	70-130		1		10/22/15 19:42	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/22/15 19:42	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%	70-132		1		10/22/15 19:42	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.3**	%	0.10	0.10	1		10/22/15 12:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (23-25) **Lab ID: 92272696035** Collected: 10/20/15 12:25 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**14.8J**	ug/kg	130	13.0	1		10/22/15 20:02	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1		10/22/15 20:02	71-43-2	
Bromobenzene	ND	ug/kg	6.5	2.6	1		10/22/15 20:02	108-86-1	
Bromochloromethane	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1		10/22/15 20:02	75-25-2	
Bromomethane	ND	ug/kg	13.0	3.2	1		10/22/15 20:02	74-83-9	
2-Butanone (MEK)	ND	ug/kg	130	3.8	1		10/22/15 20:02	78-93-3	
n-Butylbenzene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.5	2.1	1		10/22/15 20:02	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.5	2.6	1		10/22/15 20:02	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1		10/22/15 20:02	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	108-90-7	
Chloroethane	ND	ug/kg	13.0	3.1	1		10/22/15 20:02	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1		10/22/15 20:02	67-66-3	
Chloromethane	ND	ug/kg	13.0	3.1	1		10/22/15 20:02	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.7	1		10/22/15 20:02	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	106-93-4	
Dibromomethane	ND	ug/kg	6.5	3.2	1		10/22/15 20:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1		10/22/15 20:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.0	4.7	1		10/22/15 20:02	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	1.9	1		10/22/15 20:02	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.9	1		10/22/15 20:02	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1		10/22/15 20:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.5	1.9	1		10/22/15 20:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	1.9	1		10/22/15 20:02	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	108-20-3	
1,4-Dioxane (p-Dioxane)	**348**	ug/kg	195	156	1		10/22/15 20:02	123-91-1	
Ethylbenzene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.5	2.6	1		10/22/15 20:02	87-68-3	
2-Hexanone	ND	ug/kg	64.9	5.1	1		10/22/15 20:02	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	99-87-6	
Methylene Chloride	**7.2J**	ug/kg	26.0	3.9	1		10/22/15 20:02	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (23-25) **Lab ID: 92272696035** Collected: 10/20/15 12:25 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.9	4.8	1		10/22/15 20:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.5	1.9	1		10/22/15 20:02	1634-04-4	
Naphthalene	ND	ug/kg	6.5	1.6	1		10/22/15 20:02	91-20-3	
n-Propylbenzene	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	103-65-1	
Styrene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.5	2.7	1		10/22/15 20:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	79-34-5	
Tetrachloroethene	ND	ug/kg	6.5	2.2	1		10/22/15 20:02	127-18-4	
Toluene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.9	1		10/22/15 20:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1		10/22/15 20:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1		10/22/15 20:02	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1		10/22/15 20:02	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.5	2.9	1		10/22/15 20:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.5	2.1	1		10/22/15 20:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.5	2.6	1		10/22/15 20:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.5	2.3	1		10/22/15 20:02	108-67-8	
Vinyl acetate	ND	ug/kg	64.9	11.4	1		10/22/15 20:02	108-05-4	L2
Vinyl chloride	ND	ug/kg	13.0	2.3	1		10/22/15 20:02	75-01-4	
Xylene (Total)	ND	ug/kg	13.0	4.7	1		10/22/15 20:02	1330-20-7	
m&p-Xylene	ND	ug/kg	13.0	4.7	1		10/22/15 20:02	179601-23-1	
o-Xylene	ND	ug/kg	6.5	2.5	1		10/22/15 20:02	95-47-6	
Surrogates									
Toluene-d8 (S)	108	%	70-130		1		10/22/15 20:02	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/15 20:02	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%	70-132		1		10/22/15 20:02	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.8**	%	0.10	0.10	1		10/22/15 12:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (28-30) **Lab ID: 92272696036** Collected: 10/20/15 12:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	99.5	10	1		10/22/15 20:22	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/22/15 20:22	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:22	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/22/15 20:22	75-25-2	
Bromomethane	ND	ug/kg	10	2.5	1		10/22/15 20:22	74-83-9	
2-Butanone (MEK)	ND	ug/kg	99.5	2.9	1		10/22/15 20:22	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/22/15 20:22	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:22	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/22/15 20:22	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	108-90-7	
Chloroethane	ND	ug/kg	10	2.4	1		10/22/15 20:22	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/22/15 20:22	67-66-3	
Chloromethane	ND	ug/kg	10	2.4	1		10/22/15 20:22	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/22/15 20:22	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/22/15 20:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10	3.6	1		10/22/15 20:22	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/22/15 20:22	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/22/15 20:22	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	75-35-4	
cis-1,2-Dichloroethene	**2.9J**	ug/kg	5.0	1.4	1		10/22/15 20:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 20:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 20:22	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	108-20-3	
1,4-Dioxane (p-Dioxane)	**488**	ug/kg	149	119	1		10/22/15 20:22	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/22/15 20:22	87-68-3	
2-Hexanone	ND	ug/kg	49.8	3.9	1		10/22/15 20:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	99-87-6	
Methylene Chloride	**6.8J**	ug/kg	19.9	3.0	1		10/22/15 20:22	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-20 (28-30) **Lab ID: 92272696036** Collected: 10/20/15 12:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.8	3.7	1		10/22/15 20:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/22/15 20:22	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/22/15 20:22	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 20:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/22/15 20:22	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/22/15 20:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/22/15 20:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 20:22	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/22/15 20:22	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/22/15 20:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/22/15 20:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 20:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 20:22	108-67-8	
Vinyl acetate	ND	ug/kg	49.8	8.8	1		10/22/15 20:22	108-05-4	
Vinyl chloride	ND	ug/kg	10	1.8	1		10/22/15 20:22	75-01-4	
Xylene (Total)	ND	ug/kg	10	3.6	1		10/22/15 20:22	1330-20-7	
m&p-Xylene	ND	ug/kg	10	3.6	1		10/22/15 20:22	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/22/15 20:22	95-47-6	
Surrogates									
Toluene-d8 (S)	121	%	70-130		1		10/22/15 20:22	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/15 20:22	460-00-4	
1,2-Dichloroethane-d4 (S)	133	%	70-132		1		10/22/15 20:22	17060-07-0	S0
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.2**	%	0.10	0.10	1		10/22/15 12:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: TRIP BLANK 05 **Lab ID: 92272696037** Collected: 10/20/15 12:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	87.9	8.8	1		10/22/15 20:41	67-64-1	
Benzene	ND	ug/kg	4.4	1.4	1		10/22/15 20:41	71-43-2	
Bromobenzene	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	108-86-1	
Bromochloromethane	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	74-97-5	
Bromodichloromethane	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	75-27-4	
Bromoform	ND	ug/kg	4.4	2.0	1		10/22/15 20:41	75-25-2	
Bromomethane	ND	ug/kg	8.8	2.2	1		10/22/15 20:41	74-83-9	
2-Butanone (MEK)	ND	ug/kg	87.9	2.5	1		10/22/15 20:41	78-93-3	
n-Butylbenzene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.4	1.4	1		10/22/15 20:41	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.4	2.3	1		10/22/15 20:41	56-23-5	
Chlorobenzene	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	108-90-7	
Chloroethane	ND	ug/kg	8.8	2.1	1		10/22/15 20:41	75-00-3	
Chloroform	ND	ug/kg	4.4	1.4	1		10/22/15 20:41	67-66-3	
Chloromethane	ND	ug/kg	8.8	2.1	1		10/22/15 20:41	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.4	3.2	1		10/22/15 20:41	96-12-8	
Dibromochloromethane	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	106-93-4	
Dibromomethane	ND	ug/kg	4.4	2.2	1		10/22/15 20:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.8	3.2	1		10/22/15 20:41	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.4	1.3	1		10/22/15 20:41	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.4	1.9	1		10/22/15 20:41	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.4	1.2	1		10/22/15 20:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.4	1.3	1		10/22/15 20:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.4	1.3	1		10/22/15 20:41	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	132	105	1		10/22/15 20:41	123-91-1	
Ethylbenzene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	87-68-3	
2-Hexanone	ND	ug/kg	43.9	3.4	1		10/22/15 20:41	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	99-87-6	
Methylene Chloride	ND	ug/kg	17.6	2.6	1		10/22/15 20:41	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: TRIP BLANK 05 **Lab ID: 92272696037** Collected: 10/20/15 12:30 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	43.9	3.3	1		10/22/15 20:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.4	1.3	1		10/22/15 20:41	1634-04-4	
Naphthalene	ND	ug/kg	4.4	1.1	1		10/22/15 20:41	91-20-3	
n-Propylbenzene	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	103-65-1	
Styrene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	79-34-5	
Tetrachloroethene	ND	ug/kg	4.4	1.5	1		10/22/15 20:41	127-18-4	
Toluene	**2.6J**	ug/kg	4.4	1.6	1		10/22/15 20:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.4	1.9	1		10/22/15 20:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.4	1.4	1		10/22/15 20:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	79-00-5	
Trichloroethene	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.4	1.9	1		10/22/15 20:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.4	1.4	1		10/22/15 20:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.4	1.8	1		10/22/15 20:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.4	1.6	1		10/22/15 20:41	108-67-8	
Vinyl acetate	ND	ug/kg	43.9	7.7	1		10/22/15 20:41	108-05-4	
Vinyl chloride	ND	ug/kg	8.8	1.6	1		10/22/15 20:41	75-01-4	
Xylene (Total)	ND	ug/kg	8.8	3.2	1		10/22/15 20:41	1330-20-7	
m&p-Xylene	ND	ug/kg	8.8	3.2	1		10/22/15 20:41	179601-23-1	
o-Xylene	ND	ug/kg	4.4	1.7	1		10/22/15 20:41	95-47-6	
Surrogates									
Toluene-d8 (S)	110	%	70-130		1		10/22/15 20:41	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 20:41	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%	70-132		1		10/22/15 20:41	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (0-2) **Lab ID: 92272696038** Collected: 10/20/15 14:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	97.5	9.8	1		10/22/15 21:01	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		10/22/15 21:01	71-43-2	
Bromobenzene	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	75-27-4	
Bromoform	ND	ug/kg	4.9	2.2	1		10/22/15 21:01	75-25-2	
Bromomethane	ND	ug/kg	9.8	2.4	1		10/22/15 21:01	74-83-9	
2-Butanone (MEK)	ND	ug/kg	97.5	2.8	1		10/22/15 21:01	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		10/22/15 21:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.5	1		10/22/15 21:01	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	108-90-7	
Chloroethane	ND	ug/kg	9.8	2.3	1		10/22/15 21:01	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		10/22/15 21:01	67-66-3	
Chloromethane	ND	ug/kg	9.8	2.3	1		10/22/15 21:01	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1		10/22/15 21:01	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.4	1		10/22/15 21:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.8	3.5	1		10/22/15 21:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		10/22/15 21:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.1	1		10/22/15 21:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.9	1.4	1		10/22/15 21:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/22/15 21:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/22/15 21:01	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	146	117	1		10/22/15 21:01	123-91-1	
Ethylbenzene	**1.9J**	ug/kg	4.9	1.8	1		10/22/15 21:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	87-68-3	
2-Hexanone	ND	ug/kg	48.8	3.8	1		10/22/15 21:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	98-82-8	
p-Isopropyltoluene	**2.8J**	ug/kg	4.9	1.7	1		10/22/15 21:01	99-87-6	
Methylene Chloride	ND	ug/kg	19.5	2.9	1		10/22/15 21:01	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (0-2) **Lab ID: 92272696038** Collected: 10/20/15 14:45 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	48.8	3.6	1		10/22/15 21:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		10/22/15 21:01	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		10/22/15 21:01	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	79-34-5	
Tetrachloroethene	ND	ug/kg	4.9	1.7	1		10/22/15 21:01	127-18-4	
Toluene	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.1	1		10/22/15 21:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		10/22/15 21:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1		10/22/15 21:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.0	1		10/22/15 21:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.1	1		10/22/15 21:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		10/22/15 21:01	96-18-4	
1,2,4-Trimethylbenzene	**3.0J**	ug/kg	4.9	2.0	1		10/22/15 21:01	95-63-6	
1,3,5-Trimethylbenzene	**2.2J**	ug/kg	4.9	1.8	1		10/22/15 21:01	108-67-8	
Vinyl acetate	ND	ug/kg	48.8	8.6	1		10/22/15 21:01	108-05-4	
Vinyl chloride	ND	ug/kg	9.8	1.8	1		10/22/15 21:01	75-01-4	
Xylene (Total)	ND	ug/kg	9.8	3.5	1		10/22/15 21:01	1330-20-7	
m&p-Xylene	**5.0J**	ug/kg	9.8	3.5	1		10/22/15 21:01	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.9	1		10/22/15 21:01	95-47-6	
Surrogates									
Toluene-d8 (S)	111	%	70-130		1		10/22/15 21:01	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/22/15 21:01	460-00-4	
1,2-Dichloroethane-d4 (S)	140	%	70-132		1		10/22/15 21:01	17060-07-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.4**	%	0.10	0.10	1		10/22/15 12:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (3-5) **Lab ID: 92272696039** Collected: 10/20/15 14:50 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**12.1J**	ug/kg	90.9	9.1	1		10/22/15 21:21	67-64-1	
Benzene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	71-43-2	
Bromobenzene	ND	ug/kg	4.5	1.8	1		10/22/15 21:21	108-86-1	
Bromochloromethane	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	74-97-5	
Bromodichloromethane	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	75-27-4	
Bromoform	ND	ug/kg	4.5	2.1	1		10/22/15 21:21	75-25-2	
Bromomethane	ND	ug/kg	9.1	2.3	1		10/22/15 21:21	74-83-9	
2-Butanone (MEK)	ND	ug/kg	90.9	2.6	1		10/22/15 21:21	78-93-3	
n-Butylbenzene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.5	1.8	1		10/22/15 21:21	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.5	2.4	1		10/22/15 21:21	56-23-5	
Chlorobenzene	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	108-90-7	
Chloroethane	ND	ug/kg	9.1	2.2	1		10/22/15 21:21	75-00-3	
Chloroform	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	67-66-3	
Chloromethane	ND	ug/kg	9.1	2.2	1		10/22/15 21:21	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.5	3.3	1		10/22/15 21:21	96-12-8	
Dibromochloromethane	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	106-93-4	
Dibromomethane	ND	ug/kg	4.5	2.3	1		10/22/15 21:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.5	1.8	1		10/22/15 21:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.1	3.3	1		10/22/15 21:21	75-71-8	
1,1-Dichloroethane	**4.0J**	ug/kg	4.5	1.4	1		10/22/15 21:21	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.5	2.0	1		10/22/15 21:21	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	75-35-4	
cis-1,2-Dichloroethene	**5.8**	ug/kg	4.5	1.3	1		10/22/15 21:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.5	1.4	1		10/22/15 21:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.5	1.4	1		10/22/15 21:21	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	136	109	1		10/22/15 21:21	123-91-1	
Ethylbenzene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.5	1.8	1		10/22/15 21:21	87-68-3	
2-Hexanone	ND	ug/kg	45.5	3.5	1		10/22/15 21:21	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	99-87-6	
Methylene Chloride	**6.9J**	ug/kg	18.2	2.7	1		10/22/15 21:21	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (3-5) **Lab ID: 92272696039** Collected: 10/20/15 14:50 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	45.5	3.4	1		10/22/15 21:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.5	1.4	1		10/22/15 21:21	1634-04-4	
Naphthalene	ND	ug/kg	4.5	1.1	1		10/22/15 21:21	91-20-3	
n-Propylbenzene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	103-65-1	
Styrene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.5	1.9	1		10/22/15 21:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	79-34-5	
Tetrachloroethene	**28.1**	ug/kg	4.5	1.5	1		10/22/15 21:21	127-18-4	
Toluene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.5	2.0	1		10/22/15 21:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	120-82-1	
1,1,1-Trichloroethane	**1.9J**	ug/kg	4.5	1.6	1		10/22/15 21:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.5	1.9	1		10/22/15 21:21	79-00-5	
Trichloroethene	**2.3J**	ug/kg	4.5	1.9	1		10/22/15 21:21	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.5	2.0	1		10/22/15 21:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.5	1.5	1		10/22/15 21:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.5	1.8	1		10/22/15 21:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	1.6	1		10/22/15 21:21	108-67-8	
Vinyl acetate	ND	ug/kg	45.5	8.0	1		10/22/15 21:21	108-05-4	
Vinyl chloride	ND	ug/kg	9.1	1.6	1		10/22/15 21:21	75-01-4	
Xylene (Total)	ND	ug/kg	9.1	3.3	1		10/22/15 21:21	1330-20-7	
m&p-Xylene	ND	ug/kg	9.1	3.3	1		10/22/15 21:21	179601-23-1	
o-Xylene	ND	ug/kg	4.5	1.7	1		10/22/15 21:21	95-47-6	
Surrogates									
Toluene-d8 (S)	110	%	70-130		1		10/22/15 21:21	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		1		10/22/15 21:21	460-00-4	
1,2-Dichloroethane-d4 (S)	130	%	70-132		1		10/22/15 21:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.7**	%	0.10	0.10	1		10/22/15 12:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (8-10) **Lab ID: 92272696040** Collected: 10/20/15 15:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	99.8	10	1		10/22/15 21:40	67-64-1	M1
Benzene	ND	ug/kg	5.0	1.6	1		10/22/15 21:40	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 21:40	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/22/15 21:40	75-25-2	
Bromomethane	ND	ug/kg	10	2.5	1		10/22/15 21:40	74-83-9	
2-Butanone (MEK)	ND	ug/kg	99.8	2.9	1		10/22/15 21:40	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/22/15 21:40	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 21:40	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/22/15 21:40	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	108-90-7	
Chloroethane	ND	ug/kg	10	2.4	1		10/22/15 21:40	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/22/15 21:40	67-66-3	
Chloromethane	ND	ug/kg	10	2.4	1		10/22/15 21:40	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/22/15 21:40	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/22/15 21:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/22/15 21:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10	3.6	1		10/22/15 21:40	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/22/15 21:40	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/22/15 21:40	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/22/15 21:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 21:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/22/15 21:40	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/22/15 21:40	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/22/15 21:40	87-68-3	
2-Hexanone	ND	ug/kg	49.9	3.9	1		10/22/15 21:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	99-87-6	
Methylene Chloride	**5.2J**	ug/kg	20.0	3.0	1		10/22/15 21:40	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (8-10) **Lab ID: 92272696040** Collected: 10/20/15 15:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.9	3.7	1		10/22/15 21:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/22/15 21:40	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/22/15 21:40	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/22/15 21:40	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 21:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	79-34-5	
Tetrachloroethene	**2.7J**	ug/kg	5.0	1.7	1		10/22/15 21:40	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/22/15 21:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/22/15 21:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/22/15 21:40	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/22/15 21:40	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/22/15 21:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/22/15 21:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/22/15 21:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/22/15 21:40	108-67-8	
Vinyl acetate	ND	ug/kg	49.9	8.8	1		10/22/15 21:40	108-05-4	
Vinyl chloride	ND	ug/kg	10	1.8	1		10/22/15 21:40	75-01-4	
Xylene (Total)	ND	ug/kg	10	3.6	1		10/22/15 21:40	1330-20-7	
m&p-Xylene	ND	ug/kg	10	3.6	1		10/22/15 21:40	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/22/15 21:40	95-47-6	
Surrogates									
Toluene-d8 (S)	107	%	70-130		1		10/22/15 21:40	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/22/15 21:40	460-00-4	
1,2-Dichloroethane-d4 (S)	120	%	70-132		1		10/22/15 21:40	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.9**	%	0.10	0.10	1		10/22/15 12:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (13-15) **Lab ID: 92272696041** Collected: 10/20/15 15:05 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**8.6J**	ug/kg	83.1	8.3	1		10/22/15 22:00	67-64-1	
Benzene	ND	ug/kg	4.2	1.3	1		10/22/15 22:00	71-43-2	
Bromobenzene	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	108-86-1	
Bromochloromethane	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	74-97-5	
Bromodichloromethane	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	75-27-4	
Bromoform	ND	ug/kg	4.2	1.9	1		10/22/15 22:00	75-25-2	
Bromomethane	ND	ug/kg	8.3	2.1	1		10/22/15 22:00	74-83-9	
2-Butanone (MEK)	ND	ug/kg	83.1	2.4	1		10/22/15 22:00	78-93-3	
n-Butylbenzene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.2	1.3	1		10/22/15 22:00	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.2	2.2	1		10/22/15 22:00	56-23-5	
Chlorobenzene	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	108-90-7	
Chloroethane	ND	ug/kg	8.3	2.0	1		10/22/15 22:00	75-00-3	
Chloroform	ND	ug/kg	4.2	1.3	1		10/22/15 22:00	67-66-3	
Chloromethane	ND	ug/kg	8.3	2.0	1		10/22/15 22:00	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.2	3.0	1		10/22/15 22:00	96-12-8	
Dibromochloromethane	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	106-93-4	
Dibromomethane	ND	ug/kg	4.2	2.1	1		10/22/15 22:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.3	3.0	1		10/22/15 22:00	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.2	1.2	1		10/22/15 22:00	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.2	1.8	1		10/22/15 22:00	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.2	1.2	1		10/22/15 22:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.2	1.2	1		10/22/15 22:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.2	1.2	1		10/22/15 22:00	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	125	99.7	1		10/22/15 22:00	123-91-1	
Ethylbenzene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	87-68-3	
2-Hexanone	ND	ug/kg	41.5	3.2	1		10/22/15 22:00	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	99-87-6	
Methylene Chloride	**4.6J**	ug/kg	16.6	2.5	1		10/22/15 22:00	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (13-15) **Lab ID: 92272696041** Collected: 10/20/15 15:05 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	41.5	3.1	1		10/22/15 22:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.2	1.2	1		10/22/15 22:00	1634-04-4	
Naphthalene	ND	ug/kg	4.2	1.0	1		10/22/15 22:00	91-20-3	
n-Propylbenzene	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	103-65-1	
Styrene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	79-34-5	
Tetrachloroethene	ND	ug/kg	4.2	1.4	1		10/22/15 22:00	127-18-4	
Toluene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.2	1.8	1		10/22/15 22:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.2	1.3	1		10/22/15 22:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	79-00-5	
Trichloroethene	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.2	1.8	1		10/22/15 22:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.2	1.3	1		10/22/15 22:00	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.2	1.7	1		10/22/15 22:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.2	1.5	1		10/22/15 22:00	108-67-8	
Vinyl acetate	ND	ug/kg	41.5	7.3	1		10/22/15 22:00	108-05-4	
Vinyl chloride	ND	ug/kg	8.3	1.5	1		10/22/15 22:00	75-01-4	
Xylene (Total)	ND	ug/kg	8.3	3.0	1		10/22/15 22:00	1330-20-7	
m&p-Xylene	ND	ug/kg	8.3	3.0	1		10/22/15 22:00	179601-23-1	
o-Xylene	ND	ug/kg	4.2	1.6	1		10/22/15 22:00	95-47-6	
Surrogates									
Toluene-d8 (S)	111	%	70-130		1		10/22/15 22:00	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 22:00	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/22/15 22:00	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.4**	%	0.10	0.10	1		10/22/15 12:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (18-20) **Lab ID: 92272696042** Collected: 10/20/15 15:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**18.4J**	ug/kg	94.9	9.5	1		10/22/15 22:20	67-64-1	
Benzene	ND	ug/kg	4.7	1.5	1		10/22/15 22:20	71-43-2	
Bromobenzene	ND	ug/kg	4.7	1.9	1		10/22/15 22:20	108-86-1	
Bromochloromethane	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	74-97-5	
Bromodichloromethane	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	75-27-4	
Bromoform	ND	ug/kg	4.7	2.2	1		10/22/15 22:20	75-25-2	
Bromomethane	ND	ug/kg	9.5	2.4	1		10/22/15 22:20	74-83-9	
2-Butanone (MEK)	ND	ug/kg	94.9	2.8	1		10/22/15 22:20	78-93-3	
n-Butylbenzene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.7	1.5	1		10/22/15 22:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.7	1.9	1		10/22/15 22:20	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.7	2.5	1		10/22/15 22:20	56-23-5	
Chlorobenzene	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	108-90-7	
Chloroethane	ND	ug/kg	9.5	2.3	1		10/22/15 22:20	75-00-3	
Chloroform	ND	ug/kg	4.7	1.5	1		10/22/15 22:20	67-66-3	
Chloromethane	ND	ug/kg	9.5	2.3	1		10/22/15 22:20	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.7	3.4	1		10/22/15 22:20	96-12-8	
Dibromochloromethane	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	106-93-4	
Dibromomethane	ND	ug/kg	4.7	2.4	1		10/22/15 22:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.7	1.9	1		10/22/15 22:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.5	3.4	1		10/22/15 22:20	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.7	1.4	1		10/22/15 22:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.7	2.1	1		10/22/15 22:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	75-35-4	
cis-1,2-Dichloroethene	**1.6J**	ug/kg	4.7	1.3	1		10/22/15 22:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.7	1.4	1		10/22/15 22:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.7	1.4	1		10/22/15 22:20	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	142	114	1		10/22/15 22:20	123-91-1	
Ethylbenzene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.7	1.9	1		10/22/15 22:20	87-68-3	
2-Hexanone	ND	ug/kg	47.5	3.7	1		10/22/15 22:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	99-87-6	
Methylene Chloride	**7.5J**	ug/kg	19.0	2.8	1		10/22/15 22:20	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (18-20) **Lab ID: 92272696042** Collected: 10/20/15 15:00 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	47.5	3.5	1		10/22/15 22:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.7	1.4	1		10/22/15 22:20	1634-04-4	
Naphthalene	ND	ug/kg	4.7	1.1	1		10/22/15 22:20	91-20-3	
n-Propylbenzene	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	103-65-1	
Styrene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.7	2.0	1		10/22/15 22:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	79-34-5	
Tetrachloroethene	ND	ug/kg	4.7	1.6	1		10/22/15 22:20	127-18-4	
Toluene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.7	2.1	1		10/22/15 22:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.7	1.5	1		10/22/15 22:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.7	2.0	1		10/22/15 22:20	79-00-5	
Trichloroethene	ND	ug/kg	4.7	2.0	1		10/22/15 22:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.7	2.1	1		10/22/15 22:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.7	1.5	1		10/22/15 22:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.7	1.9	1		10/22/15 22:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.7	1.7	1		10/22/15 22:20	108-67-8	
Vinyl acetate	ND	ug/kg	47.5	8.4	1		10/22/15 22:20	108-05-4	
Vinyl chloride	ND	ug/kg	9.5	1.7	1		10/22/15 22:20	75-01-4	
Xylene (Total)	ND	ug/kg	9.5	3.4	1		10/22/15 22:20	1330-20-7	
m&p-Xylene	ND	ug/kg	9.5	3.4	1		10/22/15 22:20	179601-23-1	
o-Xylene	ND	ug/kg	4.7	1.8	1		10/22/15 22:20	95-47-6	
Surrogates									
Toluene-d8 (S)	111	%	70-130		1		10/22/15 22:20	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/15 22:20	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-132		1		10/22/15 22:20	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.6**	%	0.10	0.10	1		10/22/15 12:46		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (23-25) **Lab ID: 92272696043** Collected: 10/20/15 15:10 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**49.2J**	ug/kg	122	12.2	1		10/23/15 18:31	67-64-1	
Benzene	ND	ug/kg	6.1	1.9	1		10/23/15 18:31	71-43-2	
Bromobenzene	ND	ug/kg	6.1	2.4	1		10/23/15 18:31	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	74-97-5	
Bromodichloromethane	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	75-27-4	
Bromoform	ND	ug/kg	6.1	2.8	1		10/23/15 18:31	75-25-2	
Bromomethane	ND	ug/kg	12.2	3.0	1		10/23/15 18:31	74-83-9	
2-Butanone (MEK)	ND	ug/kg	122	3.5	1		10/23/15 18:31	78-93-3	
n-Butylbenzene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	1.9	1		10/23/15 18:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	2.4	1		10/23/15 18:31	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	3.2	1		10/23/15 18:31	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	108-90-7	
Chloroethane	ND	ug/kg	12.2	2.9	1		10/23/15 18:31	75-00-3	
Chloroform	ND	ug/kg	6.1	1.9	1		10/23/15 18:31	67-66-3	
Chloromethane	ND	ug/kg	12.2	2.9	1		10/23/15 18:31	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	4.4	1		10/23/15 18:31	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	106-93-4	
Dibromomethane	ND	ug/kg	6.1	3.0	1		10/23/15 18:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	2.4	1		10/23/15 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.2	4.4	1		10/23/15 18:31	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.1	1.8	1		10/23/15 18:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	2.7	1		10/23/15 18:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.1	1.7	1		10/23/15 18:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.1	1.8	1		10/23/15 18:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1.8	1		10/23/15 18:31	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	182	146	1		10/23/15 18:31	123-91-1	
Ethylbenzene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	2.4	1		10/23/15 18:31	87-68-3	
2-Hexanone	ND	ug/kg	60.8	4.7	1		10/23/15 18:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	99-87-6	
Methylene Chloride	**23.2J**	ug/kg	24.3	3.6	1		10/23/15 18:31	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (23-25) **Lab ID: 92272696043** Collected: 10/20/15 15:10 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.8	4.5	1		10/23/15 18:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.8	1		10/23/15 18:31	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1.5	1		10/23/15 18:31	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	103-65-1	
Styrene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	2.6	1		10/23/15 18:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	79-34-5	
Tetrachloroethene	ND	ug/kg	6.1	2.1	1		10/23/15 18:31	127-18-4	
Toluene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	2.7	1		10/23/15 18:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.9	1		10/23/15 18:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	2.6	1		10/23/15 18:31	79-00-5	
Trichloroethene	ND	ug/kg	6.1	2.6	1		10/23/15 18:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	2.7	1		10/23/15 18:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.9	1		10/23/15 18:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	2.4	1		10/23/15 18:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	2.2	1		10/23/15 18:31	108-67-8	
Vinyl acetate	ND	ug/kg	60.8	10.7	1		10/23/15 18:31	108-05-4	
Vinyl chloride	ND	ug/kg	12.2	2.2	1		10/23/15 18:31	75-01-4	
Xylene (Total)	ND	ug/kg	12.2	4.4	1		10/23/15 18:31	1330-20-7	
m&p-Xylene	ND	ug/kg	12.2	4.4	1		10/23/15 18:31	179601-23-1	
o-Xylene	ND	ug/kg	6.1	2.3	1		10/23/15 18:31	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/23/15 18:31	2037-26-5	1g
4-Bromofluorobenzene (S)	101	%	70-130		1		10/23/15 18:31	460-00-4	
1,2-Dichloroethane-d4 (S)	161	%	70-132		1		10/23/15 18:31	17060-07-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.0**	%	0.10	0.10	1		10/22/15 12:46		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (28-30) **Lab ID: 92272696044** Collected: 10/20/15 15:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**16.7J**	ug/kg	104	10.4	1		10/23/15 18:51	67-64-1	
Benzene	ND	ug/kg	5.2	1.7	1		10/23/15 18:51	71-43-2	
Bromobenzene	ND	ug/kg	5.2	2.1	1		10/23/15 18:51	108-86-1	
Bromochloromethane	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	74-97-5	
Bromodichloromethane	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	75-27-4	
Bromoform	ND	ug/kg	5.2	2.4	1		10/23/15 18:51	75-25-2	
Bromomethane	ND	ug/kg	10.4	2.6	1		10/23/15 18:51	74-83-9	
2-Butanone (MEK)	ND	ug/kg	104	3.0	1		10/23/15 18:51	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1.7	1		10/23/15 18:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	2.1	1		10/23/15 18:51	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.2	2.7	1		10/23/15 18:51	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	108-90-7	
Chloroethane	ND	ug/kg	10.4	2.5	1		10/23/15 18:51	75-00-3	
Chloroform	ND	ug/kg	5.2	1.7	1		10/23/15 18:51	67-66-3	
Chloromethane	ND	ug/kg	10.4	2.5	1		10/23/15 18:51	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	3.7	1		10/23/15 18:51	96-12-8	
Dibromochloromethane	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	106-93-4	
Dibromomethane	ND	ug/kg	5.2	2.6	1		10/23/15 18:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	2.1	1		10/23/15 18:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.4	3.7	1		10/23/15 18:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.2	1.6	1		10/23/15 18:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	2.3	1		10/23/15 18:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1.5	1		10/23/15 18:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.2	1.6	1		10/23/15 18:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1.6	1		10/23/15 18:51	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	156	124	1		10/23/15 18:51	123-91-1	
Ethylbenzene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	2.1	1		10/23/15 18:51	87-68-3	
2-Hexanone	ND	ug/kg	51.9	4.0	1		10/23/15 18:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	99-87-6	
Methylene Chloride	**10.2J**	ug/kg	20.7	3.1	1		10/23/15 18:51	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Sample: DS-26 (28-30) **Lab ID: 92272696044** Collected: 10/20/15 15:15 Received: 10/21/15 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.9	3.8	1		10/23/15 18:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1.6	1		10/23/15 18:51	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1.2	1		10/23/15 18:51	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	103-65-1	
Styrene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	2.2	1		10/23/15 18:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	79-34-5	
Tetrachloroethene	ND	ug/kg	5.2	1.8	1		10/23/15 18:51	127-18-4	
Toluene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	2.3	1		10/23/15 18:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	1.7	1		10/23/15 18:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	2.2	1		10/23/15 18:51	79-00-5	
Trichloroethene	ND	ug/kg	5.2	2.2	1		10/23/15 18:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.2	2.3	1		10/23/15 18:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.2	1.7	1		10/23/15 18:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	2.1	1		10/23/15 18:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1.9	1		10/23/15 18:51	108-67-8	
Vinyl acetate	ND	ug/kg	51.9	9.1	1		10/23/15 18:51	108-05-4	
Vinyl chloride	ND	ug/kg	10.4	1.9	1		10/23/15 18:51	75-01-4	
Xylene (Total)	ND	ug/kg	10.4	3.7	1		10/23/15 18:51	1330-20-7	
m&p-Xylene	ND	ug/kg	10.4	3.7	1		10/23/15 18:51	179601-23-1	
o-Xylene	ND	ug/kg	5.2	2.0	1		10/23/15 18:51	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/23/15 18:51	2037-26-5	
4-Bromofluorobenzene (S)	104	%	70-130		1		10/23/15 18:51	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		1		10/23/15 18:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.3**	%	0.10	0.10	1		10/22/15 12:52		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: MSV/33922 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272696001, 92272696002, 92272696003, 92272696004, 92272696005, 92272696006, 92272696008, 92272696009, 92272696010, 92272696011

METHOD BLANK: 1588835 Matrix: Solid
Associated Lab Samples: 92272696001, 92272696002, 92272696003, 92272696004, 92272696005, 92272696006, 92272696008, 92272696009, 92272696010, 92272696011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.7	2.0	10/22/15 11:28	
1,1,1-Trichloroethane	ug/kg	ND	4.7	1.7	10/22/15 11:28	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.7	1.8	10/22/15 11:28	
1,1,2-Trichloroethane	ug/kg	ND	4.7	2.0	10/22/15 11:28	
1,1-Dichloroethane	ug/kg	ND	4.7	1.4	10/22/15 11:28	
1,1-Dichloroethene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
1,1-Dichloropropene	ug/kg	ND	4.7	1.4	10/22/15 11:28	
1,2,3-Trichlorobenzene	ug/kg	ND	4.7	2.0	10/22/15 11:28	
1,2,3-Trichloropropane	ug/kg	ND	4.7	1.5	10/22/15 11:28	
1,2,4-Trichlorobenzene	ug/kg	ND	4.7	1.5	10/22/15 11:28	
1,2,4-Trimethylbenzene	ug/kg	ND	4.7	1.9	10/22/15 11:28	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.7	3.4	10/22/15 11:28	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.7	1.7	10/22/15 11:28	
1,2-Dichlorobenzene	ug/kg	ND	4.7	1.8	10/22/15 11:28	
1,2-Dichloroethane	ug/kg	ND	4.7	2.0	10/22/15 11:28	
1,2-Dichloropropane	ug/kg	ND	4.7	1.6	10/22/15 11:28	
1,3,5-Trimethylbenzene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
1,3-Dichlorobenzene	ug/kg	ND	4.7	1.9	10/22/15 11:28	
1,3-Dichloropropane	ug/kg	ND	4.7	1.8	10/22/15 11:28	
1,4-Dichlorobenzene	ug/kg	ND	4.7	1.6	10/22/15 11:28	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	140	112	10/22/15 11:28	
2,2-Dichloropropane	ug/kg	ND	4.7	1.6	10/22/15 11:28	
2-Butanone (MEK)	ug/kg	ND	93.1	2.7	10/22/15 11:28	
2-Chlorotoluene	ug/kg	ND	4.7	1.6	10/22/15 11:28	
2-Hexanone	ug/kg	ND	46.6	3.6	10/22/15 11:28	
4-Chlorotoluene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	46.6	3.4	10/22/15 11:28	
Acetone	ug/kg	ND	93.1	9.3	10/22/15 11:28	
Benzene	ug/kg	ND	4.7	1.5	10/22/15 11:28	
Bromobenzene	ug/kg	ND	4.7	1.9	10/22/15 11:28	
Bromochloromethane	ug/kg	ND	4.7	1.6	10/22/15 11:28	
Bromodichloromethane	ug/kg	ND	4.7	1.8	10/22/15 11:28	
Bromoform	ug/kg	ND	4.7	2.1	10/22/15 11:28	
Bromomethane	ug/kg	ND	9.3	2.3	10/22/15 11:28	
Carbon tetrachloride	ug/kg	ND	4.7	2.4	10/22/15 11:28	
Chlorobenzene	ug/kg	ND	4.7	1.8	10/22/15 11:28	
Chloroethane	ug/kg	ND	9.3	2.2	10/22/15 11:28	
Chloroform	ug/kg	ND	4.7	1.5	10/22/15 11:28	
Chloromethane	ug/kg	ND	9.3	2.2	10/22/15 11:28	
cis-1,2-Dichloroethene	ug/kg	ND	4.7	1.3	10/22/15 11:28	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

METHOD BLANK: 1588835 Matrix: Solid

Associated Lab Samples: 92272696001, 92272696002, 92272696003, 92272696004, 92272696005, 92272696006, 92272696008, 92272696009, 92272696010, 92272696011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
Dibromochloromethane	ug/kg	ND	4.7	1.7	10/22/15 11:28	
Dibromomethane	ug/kg	ND	4.7	2.3	10/22/15 11:28	
Dichlorodifluoromethane	ug/kg	ND	9.3	3.4	10/22/15 11:28	
Diisopropyl ether	ug/kg	ND	4.7	1.6	10/22/15 11:28	
Ethylbenzene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
Hexachloro-1,3-butadiene	ug/kg	ND	4.7	1.9	10/22/15 11:28	
Isopropylbenzene (Cumene)	ug/kg	ND	4.7	1.8	10/22/15 11:28	
m&p-Xylene	ug/kg	ND	9.3	3.4	10/22/15 11:28	
Methyl-tert-butyl ether	ug/kg	ND	4.7	1.4	10/22/15 11:28	
Methylene Chloride	ug/kg	ND	18.6	2.8	10/22/15 11:28	
n-Butylbenzene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
n-Propylbenzene	ug/kg	ND	4.7	1.6	10/22/15 11:28	
Naphthalene	ug/kg	ND	4.7	1.1	10/22/15 11:28	
o-Xylene	ug/kg	ND	4.7	1.8	10/22/15 11:28	
p-Isopropyltoluene	ug/kg	ND	4.7	1.6	10/22/15 11:28	
sec-Butylbenzene	ug/kg	ND	4.7	1.5	10/22/15 11:28	
Styrene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
tert-Butylbenzene	ug/kg	ND	4.7	1.9	10/22/15 11:28	
Tetrachloroethene	ug/kg	ND	4.7	1.6	10/22/15 11:28	
Toluene	ug/kg	ND	4.7	1.7	10/22/15 11:28	
trans-1,2-Dichloroethene	ug/kg	ND	4.7	1.8	10/22/15 11:28	
trans-1,3-Dichloropropene	ug/kg	ND	4.7	1.4	10/22/15 11:28	
Trichloroethene	ug/kg	ND	4.7	2.0	10/22/15 11:28	
Trichlorofluoromethane	ug/kg	ND	4.7	2.0	10/22/15 11:28	
Vinyl acetate	ug/kg	ND	46.6	8.2	10/22/15 11:28	
Vinyl chloride	ug/kg	ND	9.3	1.7	10/22/15 11:28	
Xylene (Total)	ug/kg	ND	9.3	3.4	10/22/15 11:28	
1,2-Dichloroethane-d4 (S)	%	103	70-132		10/22/15 11:28	
4-Bromofluorobenzene (S)	%	99	70-130		10/22/15 11:28	
Toluene-d8 (S)	%	100	70-130		10/22/15 11:28	

LABORATORY CONTROL SAMPLE: 1588836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	57.7	62.6	108	74-137	
1,1,1-Trichloroethane	ug/kg	57.7	63.4	110	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	57.7	57.6	100	72-141	
1,1,2-Trichloroethane	ug/kg	57.7	58.9	102	78-138	
1,1-Dichloroethane	ug/kg	57.7	62.1	107	69-134	
1,1-Dichloroethene	ug/kg	57.7	66.9	116	67-138	
1,1-Dichloropropene	ug/kg	57.7	63.3	110	69-139	
1,2,3-Trichlorobenzene	ug/kg	57.7	58.0	100	70-146	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1588836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	57.7	60.8	105	69-144	
1,2,4-Trichlorobenzene	ug/kg	57.7	56.1	97	68-148	
1,2,4-Trimethylbenzene	ug/kg	57.7	61.9	107	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	57.7	65.6	114	65-140	
1,2-Dibromoethane (EDB)	ug/kg	57.7	63.8	110	77-135	
1,2-Dichlorobenzene	ug/kg	57.7	60.7	105	77-141	
1,2-Dichloroethane	ug/kg	57.7	62.5	108	65-137	
1,2-Dichloropropane	ug/kg	57.7	59.4	103	72-136	
1,3,5-Trimethylbenzene	ug/kg	57.7	62.4	108	76-133	
1,3-Dichlorobenzene	ug/kg	57.7	61.6	107	74-138	
1,3-Dichloropropane	ug/kg	57.7	61.3	106	71-139	
1,4-Dichlorobenzene	ug/kg	57.7	60.8	105	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1150	1110	96	54-154	
2,2-Dichloropropane	ug/kg	57.7	64.5	112	68-137	
2-Butanone (MEK)	ug/kg	115	131	113	58-147	
2-Chlorotoluene	ug/kg	57.7	61.4	106	73-139	
2-Hexanone	ug/kg	115	139	121	62-145	
4-Chlorotoluene	ug/kg	57.7	60.7	105	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	115	142	123	64-149	
Acetone	ug/kg	115	135	117	53-153	
Benzene	ug/kg	57.7	62.4	108	73-135	
Bromobenzene	ug/kg	57.7	61.6	107	75-133	
Bromochloromethane	ug/kg	57.7	65.2	113	73-134	
Bromodichloromethane	ug/kg	57.7	62.7	109	71-135	
Bromoform	ug/kg	57.7	60.2	104	66-141	
Bromomethane	ug/kg	57.7	64.4	112	53-160	
Carbon tetrachloride	ug/kg	57.7	67.3	117	60-145	
Chlorobenzene	ug/kg	57.7	59.6	103	78-130	
Chloroethane	ug/kg	57.7	56.7	98	64-149	
Chloroform	ug/kg	57.7	61.5	107	70-134	
Chloromethane	ug/kg	57.7	64.5	112	52-150	
cis-1,2-Dichloroethene	ug/kg	57.7	62.9	109	70-133	
cis-1,3-Dichloropropene	ug/kg	57.7	61.3	106	68-134	
Dibromochloromethane	ug/kg	57.7	63.3	110	71-138	
Dibromomethane	ug/kg	57.7	64.4	112	74-130	
Dichlorodifluoromethane	ug/kg	57.7	52.8	91	40-160	
Diisopropyl ether	ug/kg	57.7	66.6	115	69-141	
Ethylbenzene	ug/kg	57.7	61.9	107	75-133	
Hexachloro-1,3-butadiene	ug/kg	57.7	57.4	99	68-143	
Isopropylbenzene (Cumene)	ug/kg	57.7	66.9	116	76-143	
m&p-Xylene	ug/kg	115	125	108	75-136	
Methyl-tert-butyl ether	ug/kg	57.7	65.1	113	68-144	
Methylene Chloride	ug/kg	57.7	63.6	110	45-154	
n-Butylbenzene	ug/kg	57.7	62.0	107	72-137	
n-Propylbenzene	ug/kg	57.7	62.2	108	76-136	
Naphthalene	ug/kg	57.7	60.7	105	68-151	
o-Xylene	ug/kg	57.7	61.8	107	76-141	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1588836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	57.7	61.7	107	76-140	
sec-Butylbenzene	ug/kg	57.7	64.4	112	79-139	
Styrene	ug/kg	57.7	61.7	107	79-137	
tert-Butylbenzene	ug/kg	57.7	56.8	98	74-143	
Tetrachloroethene	ug/kg	57.7	50.6	88	71-138	
Toluene	ug/kg	57.7	61.4	106	74-131	
trans-1,2-Dichloroethene	ug/kg	57.7	63.4	110	67-135	
trans-1,3-Dichloropropene	ug/kg	57.7	62.0	107	65-146	
Trichloroethene	ug/kg	57.7	62.2	108	67-135	
Trichlorofluoromethane	ug/kg	57.7	58.9	102	59-144	
Vinyl acetate	ug/kg	115	93.9	81	40-160	F3
Vinyl chloride	ug/kg	57.7	60.5	105	56-141	
Xylene (Total)	ug/kg	173	186	108	76-137	
1,2-Dichloroethane-d4 (S)	%			109	70-132	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1590011

Parameter	Units	92272627001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	23.3	32.1	138	70-130	M1
1,1,1-Trichloroethane	ug/kg	ND	23.3	26.6	114	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	23.3	35.6	153	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	23.3	33.7	144	70-130	M1
1,1-Dichloroethane	ug/kg	ND	23.3	26.4	113	70-130	
1,1-Dichloroethene	ug/kg	ND	23.3	24.6	106	49-180	
1,1-Dichloropropene	ug/kg	ND	23.3	27.1	116	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	23.3	33.7	145	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	23.3	35.7	153	70-130	M1
1,2,4-Trichlorobenzene	ug/kg	ND	23.3	33.9	146	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	23.3	36.0	155	70-130	M1
1,2-Dibromo-3-chloropropane	ug/kg	ND	23.3	41.7	179	70-130	M1
1,2-Dibromoethane (EDB)	ug/kg	ND	23.3	32.9	141	70-130	M1
1,2-Dichlorobenzene	ug/kg	ND	23.3	34.6	148	70-130	M1
1,2-Dichloroethane	ug/kg	ND	23.3	26.9	115	70-130	
1,2-Dichloropropane	ug/kg	ND	23.3	28.3	121	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	23.3	35.9	154	70-130	M1
1,3-Dichlorobenzene	ug/kg	ND	23.3	35.4	152	70-130	M1
1,3-Dichloropropane	ug/kg	ND	23.3	32.9	141	70-130	M1
1,4-Dichlorobenzene	ug/kg	ND	23.3	35.5	151	70-130	M1
1,4-Dioxane (p-Dioxane)	ug/kg	ND	466	775	166	70-130	M1
2,2-Dichloropropane	ug/kg	ND	23.3	25.6	110	70-130	
2-Butanone (MEK)	ug/kg	ND	46.6	72.1J	134	70-130	M1
2-Chlorotoluene	ug/kg	ND	23.3	35.1	151	70-130	M1
2-Hexanone	ug/kg	ND	46.6	76.3	164	70-130	M1

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

MATRIX SPIKE SAMPLE: 1590011

Parameter	Units	92272627001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/kg	ND	23.3	35.3	151	70-130	M1
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	46.6	76.3	164	70-130	M1
Acetone	ug/kg	ND	46.6	71.6J	67	70-130	M1
Benzene	ug/kg	ND	23.3	27.7	119	50-166	
Bromobenzene	ug/kg	ND	23.3	34.2	147	70-130	M1
Bromochloromethane	ug/kg	ND	23.3	28.0	120	70-130	
Bromodichloromethane	ug/kg	ND	23.3	30.7	132	70-130	M1
Bromoform	ug/kg	ND	23.3	31.8	136	70-130	M1
Bromomethane	ug/kg	ND	23.3	29.7	127	70-130	
Carbon tetrachloride	ug/kg	ND	23.3	28.7	123	70-130	
Chlorobenzene	ug/kg	ND	23.3	32.8	141	43-169	
Chloroethane	ug/kg	ND	23.3	24.3	104	70-130	
Chloroform	ug/kg	ND	23.3	27.6	118	70-130	
Chloromethane	ug/kg	ND	23.3	26.7	115	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	23.3	26.6	114	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	23.3	28.7	123	70-130	
Dibromochloromethane	ug/kg	ND	23.3	31.8	137	70-130	M1
Dibromomethane	ug/kg	ND	23.3	29.8	128	70-130	
Dichlorodifluoromethane	ug/kg	ND	23.3	23.6	101	70-130	
Diisopropyl ether	ug/kg	ND	23.3	28.5	122	70-130	
Ethylbenzene	ug/kg	ND	23.3	33.7	145	70-130	M1
Hexachloro-1,3-butadiene	ug/kg	ND	23.3	35.8	154	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	23.3	38.3	164	70-130	M1
m&p-Xylene	ug/kg	ND	46.6	67.4	144	70-130	M1
Methyl-tert-butyl ether	ug/kg	ND	23.3	27.1	116	70-130	
Methylene Chloride	ug/kg	ND	23.3	34.7	105	70-130	
n-Butylbenzene	ug/kg	ND	23.3	37.8	162	70-130	M1
n-Propylbenzene	ug/kg	ND	23.3	36.2	155	70-130	M1
Naphthalene	ug/kg	ND	23.3	37.5	161	70-130	M1
o-Xylene	ug/kg	ND	23.3	32.9	141	70-130	M1
p-Isopropyltoluene	ug/kg	ND	23.3	37.6	161	70-130	M1
sec-Butylbenzene	ug/kg	ND	23.3	38.8	167	70-130	M1
Styrene	ug/kg	ND	23.3	34.7	149	70-130	M1
tert-Butylbenzene	ug/kg	ND	23.3	33.6	144	70-130	M1
Tetrachloroethene	ug/kg	ND	23.3	24.8	106	70-130	
Toluene	ug/kg	ND	23.3	32.2	129	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	23.3	26.7	115	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	23.3	30.2	129	70-130	
Trichloroethene	ug/kg	ND	23.3	27.3	117	49-167	
Trichlorofluoromethane	ug/kg	ND	23.3	25.1	108	70-130	
Vinyl acetate	ug/kg	ND	46.6	60.5	130	70-130	
Vinyl chloride	ug/kg	ND	23.3	25.8	111	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-132	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1590010

Parameter	Units	92272437002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	22.3J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1590010

Parameter	Units	92272437002 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	6.8J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	1.5J		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	110	112	0		
4-Bromofluorobenzene (S)	%	100	99	3		
Toluene-d8 (S)	%	100	100	1		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: MSV/33923
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272696012

METHOD BLANK: 1588848
Matrix: Solid
Associated Lab Samples: 92272696012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.5	2.3	10/22/15 11:08	
1,1,1-Trichloroethane	ug/kg	ND	5.5	2.0	10/22/15 11:08	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.5	2.1	10/22/15 11:08	
1,1,2-Trichloroethane	ug/kg	ND	5.5	2.3	10/22/15 11:08	
1,1-Dichloroethane	ug/kg	ND	5.5	1.6	10/22/15 11:08	
1,1-Dichloroethene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
1,1-Dichloropropene	ug/kg	ND	5.5	1.6	10/22/15 11:08	
1,2,3-Trichlorobenzene	ug/kg	ND	5.5	2.4	10/22/15 11:08	
1,2,3-Trichloropropane	ug/kg	ND	5.5	1.8	10/22/15 11:08	
1,2,4-Trichlorobenzene	ug/kg	ND	5.5	1.8	10/22/15 11:08	
1,2,4-Trimethylbenzene	ug/kg	ND	5.5	2.2	10/22/15 11:08	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.5	3.9	10/22/15 11:08	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.5	2.0	10/22/15 11:08	
1,2-Dichlorobenzene	ug/kg	ND	5.5	2.1	10/22/15 11:08	
1,2-Dichloroethane	ug/kg	ND	5.5	2.4	10/22/15 11:08	
1,2-Dichloropropane	ug/kg	ND	5.5	1.9	10/22/15 11:08	
1,3,5-Trimethylbenzene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
1,3-Dichlorobenzene	ug/kg	ND	5.5	2.2	10/22/15 11:08	
1,3-Dichloropropane	ug/kg	ND	5.5	2.1	10/22/15 11:08	
1,4-Dichlorobenzene	ug/kg	ND	5.5	1.9	10/22/15 11:08	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	164	132	10/22/15 11:08	
2,2-Dichloropropane	ug/kg	ND	5.5	1.9	10/22/15 11:08	
2-Butanone (MEK)	ug/kg	ND	110	3.2	10/22/15 11:08	
2-Chlorotoluene	ug/kg	ND	5.5	1.9	10/22/15 11:08	
2-Hexanone	ug/kg	ND	54.8	4.3	10/22/15 11:08	
4-Chlorotoluene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.8	4.1	10/22/15 11:08	
Acetone	ug/kg	ND	110	11.0	10/22/15 11:08	
Benzene	ug/kg	ND	5.5	1.8	10/22/15 11:08	
Bromobenzene	ug/kg	ND	5.5	2.2	10/22/15 11:08	
Bromochloromethane	ug/kg	ND	5.5	1.9	10/22/15 11:08	
Bromodichloromethane	ug/kg	ND	5.5	2.1	10/22/15 11:08	
Bromoform	ug/kg	ND	5.5	2.5	10/22/15 11:08	
Bromomethane	ug/kg	ND	11.0	2.7	10/22/15 11:08	
Carbon tetrachloride	ug/kg	ND	5.5	2.9	10/22/15 11:08	
Chlorobenzene	ug/kg	ND	5.5	2.1	10/22/15 11:08	
Chloroethane	ug/kg	ND	11.0	2.6	10/22/15 11:08	
Chloroform	ug/kg	ND	5.5	1.8	10/22/15 11:08	
Chloromethane	ug/kg	ND	11.0	2.6	10/22/15 11:08	
cis-1,2-Dichloroethene	ug/kg	ND	5.5	1.5	10/22/15 11:08	
cis-1,3-Dichloropropene	ug/kg	ND	5.5	2.0	10/22/15 11:08	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

METHOD BLANK: 1588848 Matrix: Solid
Associated Lab Samples: 92272696012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.5	2.0	10/22/15 11:08	
Dibromomethane	ug/kg	ND	5.5	2.7	10/22/15 11:08	
Dichlorodifluoromethane	ug/kg	ND	11.0	3.9	10/22/15 11:08	
Diisopropyl ether	ug/kg	ND	5.5	1.9	10/22/15 11:08	
Ethylbenzene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
Hexachloro-1,3-butadiene	ug/kg	ND	5.5	2.2	10/22/15 11:08	
Isopropylbenzene (Cumene)	ug/kg	ND	5.5	2.1	10/22/15 11:08	
m&p-Xylene	ug/kg	ND	11.0	3.9	10/22/15 11:08	
Methyl-tert-butyl ether	ug/kg	ND	5.5	1.6	10/22/15 11:08	
Methylene Chloride	ug/kg	ND	21.9	3.3	10/22/15 11:08	
n-Butylbenzene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
n-Propylbenzene	ug/kg	ND	5.5	1.9	10/22/15 11:08	
Naphthalene	ug/kg	1.7J	5.5	1.3	10/22/15 11:08	
o-Xylene	ug/kg	ND	5.5	2.1	10/22/15 11:08	
p-Isopropyltoluene	ug/kg	ND	5.5	1.9	10/22/15 11:08	
sec-Butylbenzene	ug/kg	ND	5.5	1.8	10/22/15 11:08	
Styrene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
tert-Butylbenzene	ug/kg	ND	5.5	2.2	10/22/15 11:08	
Tetrachloroethene	ug/kg	ND	5.5	1.9	10/22/15 11:08	
Toluene	ug/kg	ND	5.5	2.0	10/22/15 11:08	
trans-1,2-Dichloroethene	ug/kg	ND	5.5	2.1	10/22/15 11:08	
trans-1,3-Dichloropropene	ug/kg	ND	5.5	1.6	10/22/15 11:08	
Trichloroethene	ug/kg	ND	5.5	2.3	10/22/15 11:08	
Trichlorofluoromethane	ug/kg	ND	5.5	2.4	10/22/15 11:08	
Vinyl acetate	ug/kg	ND	54.8	9.6	10/22/15 11:08	
Vinyl chloride	ug/kg	ND	11.0	2.0	10/22/15 11:08	
Xylene (Total)	ug/kg	ND	11.0	3.9	10/22/15 11:08	
1,2-Dichloroethane-d4 (S)	%	103	70-132		10/22/15 11:08	
4-Bromofluorobenzene (S)	%	99	70-130		10/22/15 11:08	
Toluene-d8 (S)	%	99	70-130		10/22/15 11:08	

LABORATORY CONTROL SAMPLE: 1588849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	49.1	51.9	106	74-137	
1,1,1-Trichloroethane	ug/kg	49.1	53.8	109	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	49.1	48.4	98	72-141	
1,1,2-Trichloroethane	ug/kg	49.1	47.7	97	78-138	
1,1-Dichloroethane	ug/kg	49.1	51.7	105	69-134	
1,1-Dichloroethene	ug/kg	49.1	55.0	112	67-138	
1,1-Dichloropropene	ug/kg	49.1	52.0	106	69-139	
1,2,3-Trichlorobenzene	ug/kg	49.1	46.6	95	70-146	
1,2,3-Trichloropropane	ug/kg	49.1	50.0	102	69-144	
1,2,4-Trichlorobenzene	ug/kg	49.1	47.3	96	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1588849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	49.1	52.0	106	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	49.1	51.3	104	65-140	
1,2-Dibromoethane (EDB)	ug/kg	49.1	50.7	103	77-135	
1,2-Dichlorobenzene	ug/kg	49.1	49.4	101	77-141	
1,2-Dichloroethane	ug/kg	49.1	51.4	105	65-137	
1,2-Dichloropropane	ug/kg	49.1	50.1	102	72-136	
1,3,5-Trimethylbenzene	ug/kg	49.1	52.4	107	76-133	
1,3-Dichlorobenzene	ug/kg	49.1	51.3	104	74-138	
1,3-Dichloropropane	ug/kg	49.1	50.8	103	71-139	
1,4-Dichlorobenzene	ug/kg	49.1	50.3	102	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	982	1020	104	54-154	
2,2-Dichloropropane	ug/kg	49.1	54.3	111	68-137	
2-Butanone (MEK)	ug/kg	98.2	106	108	58-147	
2-Chlorotoluene	ug/kg	49.1	52.0	106	73-139	
2-Hexanone	ug/kg	98.2	115	117	62-145	
4-Chlorotoluene	ug/kg	49.1	52.0	106	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	98.2	114	116	64-149	
Acetone	ug/kg	98.2	98.8	101	53-153	
Benzene	ug/kg	49.1	53.1	108	73-135	
Bromobenzene	ug/kg	49.1	50.5	103	75-133	
Bromochloromethane	ug/kg	49.1	50.8	104	73-134	
Bromodichloromethane	ug/kg	49.1	51.5	105	71-135	
Bromoform	ug/kg	49.1	50.6	103	66-141	
Bromomethane	ug/kg	49.1	54.6	111	53-160	
Carbon tetrachloride	ug/kg	49.1	58.0	118	60-145	
Chlorobenzene	ug/kg	49.1	51.3	104	78-130	
Chloroethane	ug/kg	49.1	47.8	97	64-149	
Chloroform	ug/kg	49.1	51.4	105	70-134	
Chloromethane	ug/kg	49.1	53.9	110	52-150	
cis-1,2-Dichloroethene	ug/kg	49.1	51.4	105	70-133	
cis-1,3-Dichloropropene	ug/kg	49.1	51.8	106	68-134	
Dibromochloromethane	ug/kg	49.1	51.9	106	71-138	
Dibromomethane	ug/kg	49.1	51.7	105	74-130	
Dichlorodifluoromethane	ug/kg	49.1	45.1	92	40-160	
Diisopropyl ether	ug/kg	49.1	55.1	112	69-141	
Ethylbenzene	ug/kg	49.1	53.3	108	75-133	
Hexachloro-1,3-butadiene	ug/kg	49.1	48.2	98	68-143	
Isopropylbenzene (Cumene)	ug/kg	49.1	57.2	116	76-143	
m&p-Xylene	ug/kg	98.2	106	108	75-136	
Methyl-tert-butyl ether	ug/kg	49.1	53.3	108	68-144	
Methylene Chloride	ug/kg	49.1	52.7	107	45-154	
n-Butylbenzene	ug/kg	49.1	52.3	106	72-137	
n-Propylbenzene	ug/kg	49.1	52.9	108	76-136	
Naphthalene	ug/kg	49.1	49.8	101	68-151	
o-Xylene	ug/kg	49.1	52.9	108	76-141	
p-Isopropyltoluene	ug/kg	49.1	52.4	107	76-140	
sec-Butylbenzene	ug/kg	49.1	55.0	112	79-139	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1588849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	49.1	51.9	106	79-137	
tert-Butylbenzene	ug/kg	49.1	48.7	99	74-143	
Tetrachloroethene	ug/kg	49.1	43.7	89	71-138	
Toluene	ug/kg	49.1	52.4	107	74-131	
trans-1,2-Dichloroethene	ug/kg	49.1	53.8	109	67-135	
trans-1,3-Dichloropropene	ug/kg	49.1	50.4	103	65-146	
Trichloroethene	ug/kg	49.1	51.5	105	67-135	
Trichlorofluoromethane	ug/kg	49.1	52.9	108	59-144	
Vinyl acetate	ug/kg	98.2	84.4	86	40-160	F3
Vinyl chloride	ug/kg	49.1	51.3	104	56-141	
Xylene (Total)	ug/kg	147	159	108	76-137	
1,2-Dichloroethane-d4 (S)	%			104	70-132	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: MSV/33925 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272696016, 92272696017, 92272696018, 92272696019, 92272696020, 92272696021, 92272696022, 92272696023, 92272696024, 92272696025, 92272696026, 92272696027, 92272696028, 92272696029, 92272696030, 92272696031, 92272696032, 92272696033, 92272696034, 92272696035

METHOD BLANK: 1589140 Matrix: Solid
Associated Lab Samples: 92272696016, 92272696017, 92272696018, 92272696019, 92272696020, 92272696021, 92272696022, 92272696023, 92272696024, 92272696025, 92272696026, 92272696027, 92272696028, 92272696029, 92272696030, 92272696031, 92272696032, 92272696033, 92272696034, 92272696035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	2.1	10/22/15 13:27	
1,1,1-Trichloroethane	ug/kg	ND	5.0	1.8	10/22/15 13:27	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	1.9	10/22/15 13:27	
1,1,2-Trichloroethane	ug/kg	ND	5.0	2.1	10/22/15 13:27	
1,1-Dichloroethane	ug/kg	ND	5.0	1.5	10/22/15 13:27	
1,1-Dichloroethene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
1,1-Dichloropropene	ug/kg	ND	5.0	1.5	10/22/15 13:27	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	2.2	10/22/15 13:27	
1,2,3-Trichloropropane	ug/kg	ND	5.0	1.6	10/22/15 13:27	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	1.6	10/22/15 13:27	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	2.0	10/22/15 13:27	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	3.6	10/22/15 13:27	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	1.8	10/22/15 13:27	
1,2-Dichlorobenzene	ug/kg	ND	5.0	1.9	10/22/15 13:27	
1,2-Dichloroethane	ug/kg	ND	5.0	2.2	10/22/15 13:27	
1,2-Dichloropropane	ug/kg	ND	5.0	1.7	10/22/15 13:27	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
1,3-Dichlorobenzene	ug/kg	ND	5.0	2.0	10/22/15 13:27	
1,3-Dichloropropane	ug/kg	ND	5.0	1.9	10/22/15 13:27	
1,4-Dichlorobenzene	ug/kg	ND	5.0	1.7	10/22/15 13:27	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	151	121	10/22/15 13:27	
2,2-Dichloropropane	ug/kg	ND	5.0	1.7	10/22/15 13:27	
2-Butanone (MEK)	ug/kg	ND	101	2.9	10/22/15 13:27	
2-Chlorotoluene	ug/kg	ND	5.0	1.7	10/22/15 13:27	
2-Hexanone	ug/kg	ND	50.3	3.9	10/22/15 13:27	
4-Chlorotoluene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.3	3.7	10/22/15 13:27	
Acetone	ug/kg	ND	101	10.1	10/22/15 13:27	
Benzene	ug/kg	ND	5.0	1.6	10/22/15 13:27	
Bromobenzene	ug/kg	ND	5.0	2.0	10/22/15 13:27	
Bromochloromethane	ug/kg	ND	5.0	1.7	10/22/15 13:27	
Bromodichloromethane	ug/kg	ND	5.0	1.9	10/22/15 13:27	
Bromoform	ug/kg	ND	5.0	2.3	10/22/15 13:27	
Bromomethane	ug/kg	ND	10.1	2.5	10/22/15 13:27	
Carbon tetrachloride	ug/kg	ND	5.0	2.6	10/22/15 13:27	
Chlorobenzene	ug/kg	ND	5.0	1.9	10/22/15 13:27	
Chloroethane	ug/kg	ND	10.1	2.4	10/22/15 13:27	
Chloroform	ug/kg	ND	5.0	1.6	10/22/15 13:27	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

METHOD BLANK: 1589140 Matrix: Solid

Associated Lab Samples: 92272696016, 92272696017, 92272696018, 92272696019, 92272696020, 92272696021, 92272696022, 92272696023, 92272696024, 92272696025, 92272696026, 92272696027, 92272696028, 92272696029, 92272696030, 92272696031, 92272696032, 92272696033, 92272696034, 92272696035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloromethane	ug/kg	ND	10.1	2.4	10/22/15 13:27	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	1.4	10/22/15 13:27	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
Dibromochloromethane	ug/kg	ND	5.0	1.8	10/22/15 13:27	
Dibromomethane	ug/kg	ND	5.0	2.5	10/22/15 13:27	
Dichlorodifluoromethane	ug/kg	ND	10.1	3.6	10/22/15 13:27	
Diisopropyl ether	ug/kg	ND	5.0	1.7	10/22/15 13:27	
Ethylbenzene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	2.0	10/22/15 13:27	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	1.9	10/22/15 13:27	
m&p-Xylene	ug/kg	ND	10.1	3.6	10/22/15 13:27	
Methyl-tert-butyl ether	ug/kg	ND	5.0	1.5	10/22/15 13:27	
Methylene Chloride	ug/kg	ND	20.1	3.0	10/22/15 13:27	
n-Butylbenzene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
n-Propylbenzene	ug/kg	ND	5.0	1.7	10/22/15 13:27	
Naphthalene	ug/kg	ND	5.0	1.2	10/22/15 13:27	
o-Xylene	ug/kg	ND	5.0	1.9	10/22/15 13:27	
p-Isopropyltoluene	ug/kg	ND	5.0	1.7	10/22/15 13:27	
sec-Butylbenzene	ug/kg	ND	5.0	1.6	10/22/15 13:27	
Styrene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
tert-Butylbenzene	ug/kg	ND	5.0	2.0	10/22/15 13:27	
Tetrachloroethene	ug/kg	ND	5.0	1.7	10/22/15 13:27	
Toluene	ug/kg	ND	5.0	1.8	10/22/15 13:27	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	1.9	10/22/15 13:27	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	1.5	10/22/15 13:27	
Trichloroethene	ug/kg	ND	5.0	2.1	10/22/15 13:27	
Trichlorofluoromethane	ug/kg	ND	5.0	2.2	10/22/15 13:27	
Vinyl acetate	ug/kg	ND	50.3	8.9	10/22/15 13:27	
Vinyl chloride	ug/kg	ND	10.1	1.8	10/22/15 13:27	
Xylene (Total)	ug/kg	ND	10.1	3.6	10/22/15 13:27	
1,2-Dichloroethane-d4 (S)	%	95	70-132		10/22/15 13:27	
4-Bromofluorobenzene (S)	%	97	70-130		10/22/15 13:27	
Toluene-d8 (S)	%	117	70-130		10/22/15 13:27	

LABORATORY CONTROL SAMPLE: 1589141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	45.2	40.3	89	74-137	
1,1,1-Trichloroethane	ug/kg	45.2	42.5	94	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	45.2	35.3	78	72-141	
1,1,2-Trichloroethane	ug/kg	45.2	40.4	89	78-138	
1,1-Dichloroethane	ug/kg	45.2	43.1	95	69-134	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1589141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	45.2	41.6	92	67-138	
1,1-Dichloropropene	ug/kg	45.2	44.3	98	69-139	
1,2,3-Trichlorobenzene	ug/kg	45.2	43.1	95	70-146	
1,2,3-Trichloropropane	ug/kg	45.2	41.4	92	69-144	
1,2,4-Trichlorobenzene	ug/kg	45.2	40.2	89	68-148	
1,2,4-Trimethylbenzene	ug/kg	45.2	40.9	90	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	45.2	39.2	87	65-140	
1,2-Dibromoethane (EDB)	ug/kg	45.2	43.5	96	77-135	
1,2-Dichlorobenzene	ug/kg	45.2	40.5	90	77-141	
1,2-Dichloroethane	ug/kg	45.2	39.4	87	65-137	
1,2-Dichloropropane	ug/kg	45.2	41.9	93	72-136	
1,3,5-Trimethylbenzene	ug/kg	45.2	41.7	92	76-133	
1,3-Dichlorobenzene	ug/kg	45.2	40.7	90	74-138	
1,3-Dichloropropane	ug/kg	45.2	41.9	93	71-139	
1,4-Dichlorobenzene	ug/kg	45.2	39.6	87	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	904	849	94	54-154	
2,2-Dichloropropane	ug/kg	45.2	41.9	93	68-137	
2-Butanone (MEK)	ug/kg	90.4	83.7J	93	58-147	
2-Chlorotoluene	ug/kg	45.2	40.4	89	73-139	
2-Hexanone	ug/kg	90.4	90.5	100	62-145	
4-Chlorotoluene	ug/kg	45.2	39.8	88	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	90.4	93.6	103	64-149	
Acetone	ug/kg	90.4	70.5J	78	53-153	
Benzene	ug/kg	45.2	43.5	96	73-135	
Bromobenzene	ug/kg	45.2	42.3	94	75-133	
Bromochloromethane	ug/kg	45.2	43.3	96	73-134	
Bromodichloromethane	ug/kg	45.2	39.5	87	71-135	
Bromoform	ug/kg	45.2	33.8	75	66-141	
Bromomethane	ug/kg	45.2	53.2	118	53-160	
Carbon tetrachloride	ug/kg	45.2	40.3	89	60-145	
Chlorobenzene	ug/kg	45.2	40.6	90	78-130	
Chloroethane	ug/kg	45.2	38.7	86	64-149	
Chloroform	ug/kg	45.2	40.5	90	70-134	
Chloromethane	ug/kg	45.2	39.6	88	52-150	
cis-1,2-Dichloroethene	ug/kg	45.2	41.8	93	70-133	
cis-1,3-Dichloropropene	ug/kg	45.2	41.9	93	68-134	
Dibromochloromethane	ug/kg	45.2	37.1	82	71-138	
Dibromomethane	ug/kg	45.2	42.7	95	74-130	
Dichlorodifluoromethane	ug/kg	45.2	32.2	71	40-160	
Diisopropyl ether	ug/kg	45.2	49.6	110	69-141	
Ethylbenzene	ug/kg	45.2	40.3	89	75-133	
Hexachloro-1,3-butadiene	ug/kg	45.2	38.8	86	68-143	
Isopropylbenzene (Cumene)	ug/kg	45.2	42.7	94	76-143	
m&p-Xylene	ug/kg	90.4	76.8	85	75-136	
Methyl-tert-butyl ether	ug/kg	45.2	45.0	100	68-144	
Methylene Chloride	ug/kg	45.2	39.1	86	45-154	
n-Butylbenzene	ug/kg	45.2	39.4	87	72-137	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1589141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Propylbenzene	ug/kg	45.2	41.4	92	76-136	
Naphthalene	ug/kg	45.2	46.7	103	68-151	
o-Xylene	ug/kg	45.2	39.4	87	76-141	
p-Isopropyltoluene	ug/kg	45.2	40.1	89	76-140	
sec-Butylbenzene	ug/kg	45.2	42.4	94	79-139	
Styrene	ug/kg	45.2	40.1	89	79-137	
tert-Butylbenzene	ug/kg	45.2	36.9	82	74-143	
Tetrachloroethene	ug/kg	45.2	38.2	85	71-138	
Toluene	ug/kg	45.2	41.8	92	74-131	
trans-1,2-Dichloroethene	ug/kg	45.2	44.9	99	67-135	
trans-1,3-Dichloropropene	ug/kg	45.2	42.7	94	65-146	
Trichloroethene	ug/kg	45.2	46.2	102	67-135	
Trichlorofluoromethane	ug/kg	45.2	36.9	82	59-144	
Vinyl acetate	ug/kg	90.4	22.6J	25	40-160	F3,L0
Vinyl chloride	ug/kg	45.2	41.7	92	56-141	
Xylene (Total)	ug/kg	136	116	86	76-137	
1,2-Dichloroethane-d4 (S)	%			97	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1589595

Parameter	Units	92272696022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	21.3	21.3	100	70-130	
1,1,1-Trichloroethane	ug/kg	ND	21.3	25.6	120	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	21.3	24.4	115	70-130	
1,1,2-Trichloroethane	ug/kg	ND	21.3	22.9	107	70-130	
1,1-Dichloroethane	ug/kg	ND	21.3	25.8	121	70-130	
1,1-Dichloroethene	ug/kg	ND	21.3	26.7	125	49-180	
1,1-Dichloropropene	ug/kg	ND	21.3	25.5	120	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	21.3	14.8	70	70-130	
1,2,3-Trichloropropane	ug/kg	ND	21.3	23.9	112	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	21.3	15.6	73	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	21.3	24.1	113	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	21.3	24.0	113	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	21.3	23.6	110	70-130	
1,2-Dichlorobenzene	ug/kg	ND	21.3	22.1	104	70-130	
1,2-Dichloroethane	ug/kg	ND	21.3	24.4	114	70-130	
1,2-Dichloropropane	ug/kg	ND	21.3	24.4	114	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	21.3	24.6	115	70-130	
1,3-Dichlorobenzene	ug/kg	ND	21.3	22.5	106	70-130	
1,3-Dichloropropane	ug/kg	ND	21.3	23.1	108	70-130	
1,4-Dichlorobenzene	ug/kg	ND	21.3	22.0	103	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	427	425	100	70-130	
2,2-Dichloropropane	ug/kg	ND	21.3	24.5	115	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

MATRIX SPIKE SAMPLE: 1589595

Parameter	Units	92272696022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Butanone (MEK)	ug/kg	ND	42.7	58.9J	138	70-130	M1
2-Chlorotoluene	ug/kg	ND	21.3	24.5	115	70-130	
2-Hexanone	ug/kg	ND	42.7	49.3J	115	70-130	
4-Chlorotoluene	ug/kg	ND	21.3	23.8	112	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	42.7	52.7J	123	70-130	
Acetone	ug/kg	18.8J	42.7	77.3J	137	70-130	M1
Benzene	ug/kg	ND	21.3	25.3	119	50-166	
Bromobenzene	ug/kg	ND	21.3	24.4	115	70-130	
Bromochloromethane	ug/kg	ND	21.3	24.9	117	70-130	
Bromodichloromethane	ug/kg	ND	21.3	23.5	110	70-130	
Bromoform	ug/kg	ND	21.3	21.2	99	70-130	
Bromomethane	ug/kg	ND	21.3	28.4	133	70-130	M1
Carbon tetrachloride	ug/kg	ND	21.3	25.5	120	70-130	
Chlorobenzene	ug/kg	ND	21.3	23.0	108	43-169	
Chloroethane	ug/kg	ND	21.3	23.8	111	70-130	
Chloroform	ug/kg	ND	21.3	25.0	117	70-130	
Chloromethane	ug/kg	ND	21.3	27.4	128	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	21.3	25.9	121	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	21.3	23.1	108	70-130	
Dibromochloromethane	ug/kg	ND	21.3	21.5	101	70-130	
Dibromomethane	ug/kg	ND	21.3	23.8	111	70-130	
Dichlorodifluoromethane	ug/kg	ND	21.3	23.7	111	70-130	
Diisopropyl ether	ug/kg	ND	21.3	25.8	121	70-130	
Ethylbenzene	ug/kg	ND	21.3	24.2	113	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	21.3	20.2	95	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	21.3	26.2	123	70-130	
m&p-Xylene	ug/kg	ND	42.7	48.2	113	70-130	
Methyl-tert-butyl ether	ug/kg	ND	21.3	25.4	119	70-130	
Methylene Chloride	ug/kg	5.6J	21.3	32.6	127	70-130	
n-Butylbenzene	ug/kg	ND	21.3	24.3	114	70-130	
n-Propylbenzene	ug/kg	ND	21.3	26.2	123	70-130	
Naphthalene	ug/kg	ND	21.3	20.1	94	70-130	
o-Xylene	ug/kg	ND	21.3	23.2	109	70-130	
p-Isopropyltoluene	ug/kg	ND	21.3	24.5	115	70-130	
sec-Butylbenzene	ug/kg	ND	21.3	26.9	126	70-130	
Styrene	ug/kg	ND	21.3	22.6	106	70-130	
tert-Butylbenzene	ug/kg	ND	21.3	23.5	110	70-130	
Tetrachloroethene	ug/kg	ND	21.3	20.8	98	70-130	
Toluene	ug/kg	ND	21.3	26.0	114	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	21.3	26.5	124	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	21.3	22.3	105	70-130	
Trichloroethene	ug/kg	ND	21.3	25.5	119	49-167	
Trichlorofluoromethane	ug/kg	ND	21.3	26.1	122	70-130	
Vinyl acetate	ug/kg	ND	42.7	53.9	126	70-130	
Vinyl chloride	ug/kg	ND	21.3	25.2	118	70-130	
1,2-Dichloroethane-d4 (S)	%				111	70-132	
4-Bromofluorobenzene (S)	%				95	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

MATRIX SPIKE SAMPLE: 1589595

Parameter	Units	92272696022 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1589594

Parameter	Units	92272696021 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	36.8J	56.1J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1589594

Parameter	Units	92272696021 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	9.9J	8.5J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	105	118	29		
4-Bromofluorobenzene (S)	%	99	97	17		
Toluene-d8 (S)	%	116	99	2		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: MSV/33926 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272696036, 92272696037, 92272696038, 92272696039, 92272696040, 92272696041, 92272696042

METHOD BLANK: 1589152 Matrix: Solid
Associated Lab Samples: 92272696036, 92272696037, 92272696038, 92272696039, 92272696040, 92272696041, 92272696042

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.3	1.8	10/22/15 13:08	
1,1,1-Trichloroethane	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,1,2-Trichloroethane	ug/kg	ND	4.3	1.8	10/22/15 13:08	
1,1-Dichloroethane	ug/kg	ND	4.3	1.3	10/22/15 13:08	
1,1-Dichloroethene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,1-Dichloropropene	ug/kg	ND	4.3	1.3	10/22/15 13:08	
1,2,3-Trichlorobenzene	ug/kg	ND	4.3	1.9	10/22/15 13:08	
1,2,3-Trichloropropane	ug/kg	ND	4.3	1.4	10/22/15 13:08	
1,2,4-Trichlorobenzene	ug/kg	ND	4.3	1.4	10/22/15 13:08	
1,2,4-Trimethylbenzene	ug/kg	ND	4.3	1.7	10/22/15 13:08	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.3	3.1	10/22/15 13:08	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,2-Dichlorobenzene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,2-Dichloroethane	ug/kg	ND	4.3	1.9	10/22/15 13:08	
1,2-Dichloropropane	ug/kg	ND	4.3	1.5	10/22/15 13:08	
1,3,5-Trimethylbenzene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,3-Dichlorobenzene	ug/kg	ND	4.3	1.7	10/22/15 13:08	
1,3-Dichloropropane	ug/kg	ND	4.3	1.6	10/22/15 13:08	
1,4-Dichlorobenzene	ug/kg	ND	4.3	1.5	10/22/15 13:08	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	130	104	10/22/15 13:08	
2,2-Dichloropropane	ug/kg	ND	4.3	1.5	10/22/15 13:08	
2-Butanone (MEK)	ug/kg	ND	86.5	2.5	10/22/15 13:08	
2-Chlorotoluene	ug/kg	ND	4.3	1.5	10/22/15 13:08	
2-Hexanone	ug/kg	ND	43.3	3.4	10/22/15 13:08	
4-Chlorotoluene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	43.3	3.2	10/22/15 13:08	
Acetone	ug/kg	ND	86.5	8.7	10/22/15 13:08	
Benzene	ug/kg	ND	4.3	1.4	10/22/15 13:08	
Bromobenzene	ug/kg	ND	4.3	1.7	10/22/15 13:08	
Bromochloromethane	ug/kg	ND	4.3	1.5	10/22/15 13:08	
Bromodichloromethane	ug/kg	ND	4.3	1.6	10/22/15 13:08	
Bromoform	ug/kg	ND	4.3	2.0	10/22/15 13:08	
Bromomethane	ug/kg	ND	8.7	2.2	10/22/15 13:08	
Carbon tetrachloride	ug/kg	ND	4.3	2.2	10/22/15 13:08	
Chlorobenzene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
Chloroethane	ug/kg	ND	8.7	2.1	10/22/15 13:08	
Chloroform	ug/kg	ND	4.3	1.4	10/22/15 13:08	
Chloromethane	ug/kg	ND	8.7	2.1	10/22/15 13:08	
cis-1,2-Dichloroethene	ug/kg	ND	4.3	1.2	10/22/15 13:08	
cis-1,3-Dichloropropene	ug/kg	ND	4.3	1.6	10/22/15 13:08	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

METHOD BLANK: 1589152 Matrix: Solid
Associated Lab Samples: 92272696036, 92272696037, 92272696038, 92272696039, 92272696040, 92272696041, 92272696042

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	4.3	1.6	10/22/15 13:08	
Dibromomethane	ug/kg	ND	4.3	2.2	10/22/15 13:08	
Dichlorodifluoromethane	ug/kg	ND	8.7	3.1	10/22/15 13:08	
Diisopropyl ether	ug/kg	ND	4.3	1.5	10/22/15 13:08	
Ethylbenzene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
Hexachloro-1,3-butadiene	ug/kg	ND	4.3	1.7	10/22/15 13:08	
Isopropylbenzene (Cumene)	ug/kg	ND	4.3	1.6	10/22/15 13:08	
m&p-Xylene	ug/kg	ND	8.7	3.1	10/22/15 13:08	
Methyl-tert-butyl ether	ug/kg	ND	4.3	1.3	10/22/15 13:08	
Methylene Chloride	ug/kg	ND	17.3	2.6	10/22/15 13:08	
n-Butylbenzene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
n-Propylbenzene	ug/kg	ND	4.3	1.5	10/22/15 13:08	
Naphthalene	ug/kg	1.6J	4.3	1.0	10/22/15 13:08	
o-Xylene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
p-Isopropyltoluene	ug/kg	ND	4.3	1.5	10/22/15 13:08	
sec-Butylbenzene	ug/kg	ND	4.3	1.4	10/22/15 13:08	
Styrene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
tert-Butylbenzene	ug/kg	ND	4.3	1.7	10/22/15 13:08	
Tetrachloroethene	ug/kg	ND	4.3	1.5	10/22/15 13:08	
Toluene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
trans-1,2-Dichloroethene	ug/kg	ND	4.3	1.6	10/22/15 13:08	
trans-1,3-Dichloropropene	ug/kg	ND	4.3	1.3	10/22/15 13:08	
Trichloroethene	ug/kg	ND	4.3	1.8	10/22/15 13:08	
Trichlorofluoromethane	ug/kg	ND	4.3	1.9	10/22/15 13:08	
Vinyl acetate	ug/kg	ND	43.3	7.6	10/22/15 13:08	
Vinyl chloride	ug/kg	ND	8.7	1.6	10/22/15 13:08	
Xylene (Total)	ug/kg	ND	8.7	3.1	10/22/15 13:08	
1,2-Dichloroethane-d4 (S)	%	84	70-132		10/22/15 13:08	
4-Bromofluorobenzene (S)	%	96	70-130		10/22/15 13:08	
Toluene-d8 (S)	%	111	70-130		10/22/15 13:08	

LABORATORY CONTROL SAMPLE: 1589153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	52.5	53.5	102	74-137	
1,1,1-Trichloroethane	ug/kg	52.5	56.5	108	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	52.5	44.2	84	72-141	
1,1,2-Trichloroethane	ug/kg	52.5	51.4	98	78-138	
1,1-Dichloroethane	ug/kg	52.5	57.3	109	69-134	
1,1-Dichloroethene	ug/kg	52.5	60.5	115	67-138	
1,1-Dichloropropene	ug/kg	52.5	60.9	116	69-139	
1,2,3-Trichlorobenzene	ug/kg	52.5	55.7	106	70-146	
1,2,3-Trichloropropane	ug/kg	52.5	50.9	97	69-144	
1,2,4-Trichlorobenzene	ug/kg	52.5	51.8	99	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1589153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	52.5	54.7	104	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	52.5	53.4	102	65-140	
1,2-Dibromoethane (EDB)	ug/kg	52.5	59.8	114	77-135	
1,2-Dichlorobenzene	ug/kg	52.5	53.1	101	77-141	
1,2-Dichloroethane	ug/kg	52.5	53.9	103	65-137	
1,2-Dichloropropane	ug/kg	52.5	55.3	105	72-136	
1,3,5-Trimethylbenzene	ug/kg	52.5	55.3	105	76-133	
1,3-Dichlorobenzene	ug/kg	52.5	54.0	103	74-138	
1,3-Dichloropropane	ug/kg	52.5	56.2	107	71-139	
1,4-Dichlorobenzene	ug/kg	52.5	51.9	99	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1050	997	95	54-154	
2,2-Dichloropropane	ug/kg	52.5	60.7	115	68-137	
2-Butanone (MEK)	ug/kg	105	106	101	58-147	
2-Chlorotoluene	ug/kg	52.5	54.4	104	73-139	
2-Hexanone	ug/kg	105	122	116	62-145	
4-Chlorotoluene	ug/kg	52.5	50.4	96	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	105	109	104	64-149	
Acetone	ug/kg	105	105J	100	53-153	
Benzene	ug/kg	52.5	58.9	112	73-135	
Bromobenzene	ug/kg	52.5	55.1	105	75-133	
Bromochloromethane	ug/kg	52.5	60.8	116	73-134	
Bromodichloromethane	ug/kg	52.5	54.2	103	71-135	
Bromoform	ug/kg	52.5	47.6	91	66-141	
Bromomethane	ug/kg	52.5	69.7	133	53-160	
Carbon tetrachloride	ug/kg	52.5	54.7	104	60-145	
Chlorobenzene	ug/kg	52.5	53.4	102	78-130	
Chloroethane	ug/kg	52.5	57.5	109	64-149	
Chloroform	ug/kg	52.5	57.3	109	70-134	
Chloromethane	ug/kg	52.5	56.0	107	52-150	
cis-1,2-Dichloroethene	ug/kg	52.5	59.3	113	70-133	
cis-1,3-Dichloropropene	ug/kg	52.5	55.2	105	68-134	
Dibromochloromethane	ug/kg	52.5	52.0	99	71-138	
Dibromomethane	ug/kg	52.5	57.6	110	74-130	
Dichlorodifluoromethane	ug/kg	52.5	45.4	86	40-160	
Diisopropyl ether	ug/kg	52.5	63.4	121	69-141	
Ethylbenzene	ug/kg	52.5	53.9	103	75-133	
Hexachloro-1,3-butadiene	ug/kg	52.5	53.0	101	68-143	
Isopropylbenzene (Cumene)	ug/kg	52.5	57.6	110	76-143	
m&p-Xylene	ug/kg	105	107	102	75-136	
Methyl-tert-butyl ether	ug/kg	52.5	63.1	120	68-144	
Methylene Chloride	ug/kg	52.5	58.6	112	45-154	
n-Butylbenzene	ug/kg	52.5	52.5	100	72-137	
n-Propylbenzene	ug/kg	52.5	54.4	104	76-136	
Naphthalene	ug/kg	52.5	57.7	110	68-151	
o-Xylene	ug/kg	52.5	54.5	104	76-141	
p-Isopropyltoluene	ug/kg	52.5	54.6	104	76-140	
sec-Butylbenzene	ug/kg	52.5	56.7	108	79-139	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1589153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	52.5	55.2	105	79-137	
tert-Butylbenzene	ug/kg	52.5	49.8	95	74-143	
Tetrachloroethene	ug/kg	52.5	51.3	98	71-138	
Toluene	ug/kg	52.5	52.9	101	74-131	
trans-1,2-Dichloroethene	ug/kg	52.5	58.9	112	67-135	
trans-1,3-Dichloropropene	ug/kg	52.5	55.5	106	65-146	
Trichloroethene	ug/kg	52.5	62.9	120	67-135	
Trichlorofluoromethane	ug/kg	52.5	52.4	100	59-144	
Vinyl acetate	ug/kg	105	51.8J	49	40-160	F3
Vinyl chloride	ug/kg	52.5	59.7	114	56-141	
Xylene (Total)	ug/kg	158	161	102	76-137	
1,2-Dichloroethane-d4 (S)	%			103	70-132	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 1590048

Parameter	Units	92272696040 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	24.8	22.3	90	70-130	
1,1,1-Trichloroethane	ug/kg	ND	24.8	24.0	97	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	24.8	22.9	92	70-130	
1,1,2-Trichloroethane	ug/kg	ND	24.8	22.1	89	70-130	
1,1-Dichloroethane	ug/kg	ND	24.8	25.0	101	70-130	
1,1-Dichloroethene	ug/kg	ND	24.8	25.8	104	49-180	
1,1-Dichloropropene	ug/kg	ND	24.8	24.5	99	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	24.8	20.3	82	70-130	
1,2,3-Trichloropropane	ug/kg	ND	24.8	23.3	94	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	24.8	20.2	82	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	24.8	23.6	95	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	24.8	20.8	84	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	24.8	23.9	97	70-130	
1,2-Dichlorobenzene	ug/kg	ND	24.8	22.0	89	70-130	
1,2-Dichloroethane	ug/kg	ND	24.8	23.9	97	70-130	
1,2-Dichloropropane	ug/kg	ND	24.8	23.1	93	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	24.8	24.4	98	70-130	
1,3-Dichlorobenzene	ug/kg	ND	24.8	22.9	92	70-130	
1,3-Dichloropropane	ug/kg	ND	24.8	23.3	94	70-130	
1,4-Dichlorobenzene	ug/kg	ND	24.8	22.6	91	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	495	439	89	70-130	
2,2-Dichloropropane	ug/kg	ND	24.8	23.3	94	70-130	
2-Butanone (MEK)	ug/kg	ND	49.5	59.7J	121	70-130	
2-Chlorotoluene	ug/kg	ND	24.8	23.5	95	70-130	
2-Hexanone	ug/kg	ND	49.5	47.4J	96	70-130	
4-Chlorotoluene	ug/kg	ND	24.8	23.3	94	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	49.5	52.2J	105	70-130	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

MATRIX SPIKE SAMPLE: 1590048

Parameter	Units	92272696040 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	49.5	75.7J	136	70-130	M1
Benzene	ug/kg	ND	24.8	24.5	99	50-166	
Bromobenzene	ug/kg	ND	24.8	23.0	93	70-130	
Bromochloromethane	ug/kg	ND	24.8	24.2	98	70-130	
Bromodichloromethane	ug/kg	ND	24.8	23.1	93	70-130	
Bromoform	ug/kg	ND	24.8	21.3	86	70-130	
Bromomethane	ug/kg	ND	24.8	27.1	109	70-130	
Carbon tetrachloride	ug/kg	ND	24.8	25.5	103	70-130	
Chlorobenzene	ug/kg	ND	24.8	22.6	91	43-169	
Chloroethane	ug/kg	ND	24.8	22.8	92	70-130	
Chloroform	ug/kg	ND	24.8	24.4	99	70-130	
Chloromethane	ug/kg	ND	24.8	25.5	103	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	24.8	25.1	101	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	24.8	22.4	90	70-130	
Dibromochloromethane	ug/kg	ND	24.8	21.7	88	70-130	
Dibromomethane	ug/kg	ND	24.8	24.2	98	70-130	
Dichlorodifluoromethane	ug/kg	ND	24.8	22.9	93	70-130	
Diisopropyl ether	ug/kg	ND	24.8	25.0	101	70-130	
Ethylbenzene	ug/kg	ND	24.8	24.4	99	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	24.8	20.4	82	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	24.8	26.4	107	70-130	
m&p-Xylene	ug/kg	ND	49.5	48.3	98	70-130	
Methyl-tert-butyl ether	ug/kg	ND	24.8	24.4	99	70-130	
Methylene Chloride	ug/kg	5.2J	24.8	33.6	115	70-130	
n-Butylbenzene	ug/kg	ND	24.8	23.7	96	70-130	
n-Propylbenzene	ug/kg	ND	24.8	24.8	100	70-130	
Naphthalene	ug/kg	ND	24.8	22.5	91	70-130	
o-Xylene	ug/kg	ND	24.8	23.7	96	70-130	
p-Isopropyltoluene	ug/kg	ND	24.8	24.3	98	70-130	
sec-Butylbenzene	ug/kg	ND	24.8	26.1	105	70-130	
Styrene	ug/kg	ND	24.8	23.6	95	70-130	
tert-Butylbenzene	ug/kg	ND	24.8	22.5	91	70-130	
Tetrachloroethene	ug/kg	2.7J	24.8	20.5	72	70-130	
Toluene	ug/kg	ND	24.8	26.4	102	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	24.8	25.3	102	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	24.8	21.4	87	70-130	
Trichloroethene	ug/kg	ND	24.8	22.8	92	49-167	
Trichlorofluoromethane	ug/kg	ND	24.8	22.5	91	70-130	
Vinyl acetate	ug/kg	ND	49.5	47.9J	97	70-130	
Vinyl chloride	ug/kg	ND	24.8	24.3	98	70-130	
1,2-Dichloroethane-d4 (S)	%				113	70-132	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1590296

Parameter	Units	92272696036 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	488	500	2	30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	21.0J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	2.9J	3.6J		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1590296

Parameter	Units	92272696036 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	6.8J	11.8J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	133	105	26		
4-Bromofluorobenzene (S)	%	94	101	4		
Toluene-d8 (S)	%	121	99	22		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: MSV/33941 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272696013, 92272696014, 92272696015, 92272696043, 92272696044

METHOD BLANK: 1590204 Matrix: Solid
Associated Lab Samples: 92272696013, 92272696014, 92272696015, 92272696043, 92272696044

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.1	2.2	10/23/15 11:55	
1,1,1-Trichloroethane	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.1	2.0	10/23/15 11:55	
1,1,2-Trichloroethane	ug/kg	ND	5.1	2.2	10/23/15 11:55	
1,1-Dichloroethane	ug/kg	ND	5.1	1.5	10/23/15 11:55	
1,1-Dichloroethene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,1-Dichloropropene	ug/kg	ND	5.1	1.5	10/23/15 11:55	
1,2,3-Trichlorobenzene	ug/kg	ND	5.1	2.3	10/23/15 11:55	
1,2,3-Trichloropropane	ug/kg	ND	5.1	1.6	10/23/15 11:55	
1,2,4-Trichlorobenzene	ug/kg	ND	5.1	1.6	10/23/15 11:55	
1,2,4-Trimethylbenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.1	3.7	10/23/15 11:55	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,2-Dichlorobenzene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
1,2-Dichloroethane	ug/kg	ND	5.1	2.3	10/23/15 11:55	
1,2-Dichloropropane	ug/kg	ND	5.1	1.7	10/23/15 11:55	
1,3,5-Trimethylbenzene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,3-Dichlorobenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
1,3-Dichloropropane	ug/kg	ND	5.1	2.0	10/23/15 11:55	
1,4-Dichlorobenzene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	154	123	10/23/15 11:55	
2,2-Dichloropropane	ug/kg	ND	5.1	1.7	10/23/15 11:55	
2-Butanone (MEK)	ug/kg	ND	103	3.0	10/23/15 11:55	
2-Chlorotoluene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
2-Hexanone	ug/kg	ND	51.3	4.0	10/23/15 11:55	
4-Chlorotoluene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	51.3	3.8	10/23/15 11:55	
Acetone	ug/kg	ND	103	10.3	10/23/15 11:55	
Benzene	ug/kg	ND	5.1	1.6	10/23/15 11:55	
Bromobenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
Bromochloromethane	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Bromodichloromethane	ug/kg	ND	5.1	2.0	10/23/15 11:55	
Bromoform	ug/kg	ND	5.1	2.4	10/23/15 11:55	
Bromomethane	ug/kg	ND	10.3	2.6	10/23/15 11:55	
Carbon tetrachloride	ug/kg	ND	5.1	2.7	10/23/15 11:55	
Chlorobenzene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
Chloroethane	ug/kg	ND	10.3	2.5	10/23/15 11:55	
Chloroform	ug/kg	ND	5.1	1.6	10/23/15 11:55	
Chloromethane	ug/kg	ND	10.3	2.5	10/23/15 11:55	
cis-1,2-Dichloroethene	ug/kg	ND	5.1	1.4	10/23/15 11:55	
cis-1,3-Dichloropropene	ug/kg	ND	5.1	1.8	10/23/15 11:55	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

METHOD BLANK: 1590204 Matrix: Solid
Associated Lab Samples: 92272696013, 92272696014, 92272696015, 92272696043, 92272696044

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.1	1.8	10/23/15 11:55	
Dibromomethane	ug/kg	ND	5.1	2.6	10/23/15 11:55	
Dichlorodifluoromethane	ug/kg	ND	10.3	3.7	10/23/15 11:55	
Diisopropyl ether	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Ethylbenzene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
Hexachloro-1,3-butadiene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
Isopropylbenzene (Cumene)	ug/kg	ND	5.1	2.0	10/23/15 11:55	
m&p-Xylene	ug/kg	ND	10.3	3.7	10/23/15 11:55	
Methyl-tert-butyl ether	ug/kg	ND	5.1	1.5	10/23/15 11:55	
Methylene Chloride	ug/kg	ND	20.5	3.1	10/23/15 11:55	
n-Butylbenzene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
n-Propylbenzene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Naphthalene	ug/kg	ND	5.1	1.2	10/23/15 11:55	
o-Xylene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
p-Isopropyltoluene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
sec-Butylbenzene	ug/kg	ND	5.1	1.6	10/23/15 11:55	
Styrene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
tert-Butylbenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
Tetrachloroethene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Toluene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
trans-1,2-Dichloroethene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
trans-1,3-Dichloropropene	ug/kg	ND	5.1	1.5	10/23/15 11:55	
Trichloroethene	ug/kg	ND	5.1	2.2	10/23/15 11:55	
Trichlorofluoromethane	ug/kg	ND	5.1	2.3	10/23/15 11:55	
Vinyl acetate	ug/kg	ND	51.3	9.0	10/23/15 11:55	
Vinyl chloride	ug/kg	ND	10.3	1.8	10/23/15 11:55	
Xylene (Total)	ug/kg	ND	10.3	3.7	10/23/15 11:55	
1,2-Dichloroethane-d4 (S)	%	106	70-132		10/23/15 11:55	
4-Bromofluorobenzene (S)	%	100	70-130		10/23/15 11:55	
Toluene-d8 (S)	%	98	70-130		10/23/15 11:55	

LABORATORY CONTROL SAMPLE: 1590205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	50.6	55.0	109	74-137	
1,1,1-Trichloroethane	ug/kg	50.6	58.6	116	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	50.6	52.4	104	72-141	
1,1,2-Trichloroethane	ug/kg	50.6	53.1	105	78-138	
1,1-Dichloroethane	ug/kg	50.6	55.6	110	69-134	
1,1-Dichloroethene	ug/kg	50.6	59.1	117	67-138	
1,1-Dichloropropene	ug/kg	50.6	56.1	111	69-139	
1,2,3-Trichlorobenzene	ug/kg	50.6	51.5	102	70-146	
1,2,3-Trichloropropane	ug/kg	50.6	57.1	113	69-144	
1,2,4-Trichlorobenzene	ug/kg	50.6	49.9	99	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1590205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	50.6	53.7	106	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	50.6	59.6	118	65-140	
1,2-Dibromoethane (EDB)	ug/kg	50.6	56.5	112	77-135	
1,2-Dichlorobenzene	ug/kg	50.6	53.7	106	77-141	
1,2-Dichloroethane	ug/kg	50.6	54.7	108	65-137	
1,2-Dichloropropane	ug/kg	50.6	55.3	109	72-136	
1,3,5-Trimethylbenzene	ug/kg	50.6	55.5	110	76-133	
1,3-Dichlorobenzene	ug/kg	50.6	54.9	108	74-138	
1,3-Dichloropropane	ug/kg	50.6	54.2	107	71-139	
1,4-Dichlorobenzene	ug/kg	50.6	52.9	105	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1010	1120	110	54-154	
2,2-Dichloropropane	ug/kg	50.6	58.6	116	68-137	
2-Butanone (MEK)	ug/kg	101	120	119	58-147	
2-Chlorotoluene	ug/kg	50.6	54.5	108	73-139	
2-Hexanone	ug/kg	101	123	122	62-145	
4-Chlorotoluene	ug/kg	50.6	54.2	107	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	101	123	121	64-149	
Acetone	ug/kg	101	122	120	53-153	
Benzene	ug/kg	50.6	56.6	112	73-135	
Bromobenzene	ug/kg	50.6	54.0	107	75-133	
Bromochloromethane	ug/kg	50.6	59.4	117	73-134	
Bromodichloromethane	ug/kg	50.6	56.1	111	71-135	
Bromoform	ug/kg	50.6	54.8	108	66-141	
Bromomethane	ug/kg	50.6	58.3	115	53-160	
Carbon tetrachloride	ug/kg	50.6	60.9	120	60-145	
Chlorobenzene	ug/kg	50.6	54.1	107	78-130	
Chloroethane	ug/kg	50.6	51.2	101	64-149	
Chloroform	ug/kg	50.6	56.0	111	70-134	
Chloromethane	ug/kg	50.6	58.5	116	52-150	
cis-1,2-Dichloroethene	ug/kg	50.6	56.1	111	70-133	
cis-1,3-Dichloropropene	ug/kg	50.6	56.2	111	68-134	
Dibromochloromethane	ug/kg	50.6	56.8	112	71-138	
Dibromomethane	ug/kg	50.6	56.4	111	74-130	
Dichlorodifluoromethane	ug/kg	50.6	49.3	97	40-160	
Diisopropyl ether	ug/kg	50.6	58.9	116	69-141	
Ethylbenzene	ug/kg	50.6	57.2	113	75-133	
Hexachloro-1,3-butadiene	ug/kg	50.6	51.2	101	68-143	
Isopropylbenzene (Cumene)	ug/kg	50.6	60.7	120	76-143	
m&p-Xylene	ug/kg	101	111	110	75-136	
Methyl-tert-butyl ether	ug/kg	50.6	57.3	113	68-144	
Methylene Chloride	ug/kg	50.6	58.3	115	45-154	
n-Butylbenzene	ug/kg	50.6	55.0	109	72-137	
n-Propylbenzene	ug/kg	50.6	55.6	110	76-136	
Naphthalene	ug/kg	50.6	53.8	106	68-151	
o-Xylene	ug/kg	50.6	55.4	109	76-141	
p-Isopropyltoluene	ug/kg	50.6	55.1	109	76-140	
sec-Butylbenzene	ug/kg	50.6	57.6	114	79-139	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

LABORATORY CONTROL SAMPLE: 1590205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	50.6	56.1	111	79-137	
tert-Butylbenzene	ug/kg	50.6	50.6	100	74-143	
Tetrachloroethene	ug/kg	50.6	45.8	90	71-138	
Toluene	ug/kg	50.6	56.7	112	74-131	
trans-1,2-Dichloroethene	ug/kg	50.6	56.8	112	67-135	
trans-1,3-Dichloropropene	ug/kg	50.6	55.7	110	65-146	
Trichloroethene	ug/kg	50.6	55.6	110	67-135	
Trichlorofluoromethane	ug/kg	50.6	52.1	103	59-144	
Vinyl acetate	ug/kg	101	84.8	84	40-160	F3
Vinyl chloride	ug/kg	50.6	55.1	109	56-141	
Xylene (Total)	ug/kg	152	167	110	76-137	
1,2-Dichloroethane-d4 (S)	%			105	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1591058

Parameter	Units	92272895002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	19.5	17.2	88	70-130	
1,1,1-Trichloroethane	ug/kg	ND	19.5	20.2	99	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	19.5	17.2	88	70-130	
1,1,2-Trichloroethane	ug/kg	ND	19.5	18.6	95	70-130	
1,1-Dichloroethane	ug/kg	ND	19.5	21.9	108	70-130	
1,1-Dichloroethene	ug/kg	ND	19.5	20.8	107	49-180	
1,1-Dichloropropene	ug/kg	ND	19.5	18.0	92	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	19.5	6.4	33	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	19.5	18.6	95	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	19.5	6.3	32	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	19.5	15.0	77	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	19.5	19.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	19.5	19.5	100	70-130	
1,2-Dichlorobenzene	ug/kg	ND	19.5	13.1	67	70-130	M1
1,2-Dichloroethane	ug/kg	ND	19.5	20.2	103	70-130	
1,2-Dichloropropane	ug/kg	ND	19.5	17.8	91	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	19.5	15.7	80	70-130	
1,3-Dichlorobenzene	ug/kg	ND	19.5	13.5	69	70-130	M1
1,3-Dichloropropane	ug/kg	ND	19.5	19.6	100	70-130	
1,4-Dichlorobenzene	ug/kg	ND	19.5	13.3	68	70-130	M1
1,4-Dioxane (p-Dioxane)	ug/kg	ND	391	407	104	70-130	
2,2-Dichloropropane	ug/kg	ND	19.5	19.5	100	70-130	
2-Butanone (MEK)	ug/kg	ND	39.1	50.4J	129	70-130	
2-Chlorotoluene	ug/kg	ND	19.5	16.2	83	70-130	
2-Hexanone	ug/kg	ND	39.1	48.1J	123	70-130	
4-Chlorotoluene	ug/kg	ND	19.5	15.4	79	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	39.1	43.8J	112	70-130	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

MATRIX SPIKE SAMPLE: 1591058

Parameter	Units	92272895002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	27.7J	39.1	73.3J	117	70-130	
Benzene	ug/kg	ND	19.5	19.0	97	50-166	
Bromobenzene	ug/kg	ND	19.5	17.6	90	70-130	
Bromochloromethane	ug/kg	ND	19.5	19.2	98	70-130	
Bromodichloromethane	ug/kg	ND	19.5	17.8	91	70-130	
Bromoform	ug/kg	ND	19.5	15.6	80	70-130	
Bromomethane	ug/kg	ND	19.5	25.0	128	70-130	
Carbon tetrachloride	ug/kg	ND	19.5	18.3	94	70-130	
Chlorobenzene	ug/kg	ND	19.5	16.0	82	43-169	
Chloroethane	ug/kg	ND	19.5	19.3	99	70-130	
Chloroform	ug/kg	ND	19.5	19.6	100	70-130	
Chloromethane	ug/kg	ND	19.5	22.3	114	70-130	
cis-1,2-Dichloroethene	ug/kg	1.7J	19.5	22.8	108	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	19.5	17.7	91	70-130	
Dibromochloromethane	ug/kg	ND	19.5	17.8	91	70-130	
Dibromomethane	ug/kg	ND	19.5	18.9	97	70-130	
Dichlorodifluoromethane	ug/kg	ND	19.5	17.6	90	70-130	
Diisopropyl ether	ug/kg	ND	19.5	21.8	111	70-130	
Ethylbenzene	ug/kg	ND	19.5	16.4	84	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	19.5	5.8	30	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	19.5	15.1	77	70-130	
m&p-Xylene	ug/kg	ND	39.1	32.2	82	70-130	
Methyl-tert-butyl ether	ug/kg	ND	19.5	21.9	112	70-130	
Methylene Chloride	ug/kg	13.6J	19.5	29.9	84	70-130	
n-Butylbenzene	ug/kg	ND	19.5	11.3	58	70-130	M1
n-Propylbenzene	ug/kg	ND	19.5	16.4	84	70-130	
Naphthalene	ug/kg	ND	19.5	10.9	56	70-130	M1
o-Xylene	ug/kg	ND	19.5	15.2	78	70-130	
p-Isopropyltoluene	ug/kg	ND	19.5	13.0	67	70-130	M1
sec-Butylbenzene	ug/kg	ND	19.5	14.4	74	70-130	
Styrene	ug/kg	ND	19.5	14.7	75	70-130	
tert-Butylbenzene	ug/kg	ND	19.5	14.2	73	70-130	
Tetrachloroethene	ug/kg	2.7J	19.5	15.9	68	70-130	M1
Toluene	ug/kg	ND	19.5	17.3	85	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	19.5	20.6	105	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	19.5	16.5	84	70-130	
Trichloroethene	ug/kg	ND	19.5	17.4	85	49-167	
Trichlorofluoromethane	ug/kg	ND	19.5	20.0	102	70-130	
Vinyl acetate	ug/kg	ND	39.1	37.5J	96	70-130	
Vinyl chloride	ug/kg	ND	19.5	21.0	107	70-130	
1,2-Dichloroethane-d4 (S)	%				112	70-132	
4-Bromofluorobenzene (S)	%				92	70-130	
Toluene-d8 (S)	%				95	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1591044

Parameter	Units	92272772001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	36.0J	39.0J		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	41.1J	49.1J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

SAMPLE DUPLICATE: 1591044

Parameter	Units	92272772001 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	8.3J	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	3.8J		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	111	112	11		
4-Bromofluorobenzene (S)	%	100	99	8		
Toluene-d8 (S)	%	101	99	7		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: PMST/8483 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272696001, 92272696002, 92272696003, 92272696004, 92272696005, 92272696008, 92272696009, 92272696010, 92272696011, 92272696012, 92272696013, 92272696014, 92272696015, 92272696016, 92272696017, 92272696019, 92272696020, 92272696021, 92272696022

SAMPLE DUPLICATE: 1587896

Parameter	Units	92272696001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.8	16.3	10	25	

SAMPLE DUPLICATE: 1587897

Parameter	Units	92272696022 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.4	10.8	5	25	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: PMST/8484 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272696023, 92272696024, 92272696025, 92272696026, 92272696027, 92272696028, 92272696029, 92272696030, 92272696031, 92272696032, 92272696033, 92272696034, 92272696035, 92272696036, 92272696038, 92272696039, 92272696040, 92272696041, 92272696042, 92272696043

SAMPLE DUPLICATE: 1588023

Parameter	Units	92272696023 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10	9.8	2	25	

SAMPLE DUPLICATE: 1588024

Parameter	Units	92272696043 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.0	7.8	3	25	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

QC Batch: PMST/8485
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272696044

SAMPLE DUPLICATE: 1588264

Parameter	Units	92272631001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	79.0	78.8	0	25	

SAMPLE DUPLICATE: 1588265

Parameter	Units	92272649001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	99.9	99.9	0	25	

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QUALIFIERS

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
F3	The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92272696007	**FB-02**	EPA 8260	MSV/33972		
92272696001	**DS7-(8-10)**	EPA 8260	MSV/33922		
92272696002	**DS7-(13-15)**	EPA 8260	MSV/33922		
92272696003	**DS-16-(18-20)**	EPA 8260	MSV/33922		
92272696004	**DS-16-(23-25)**	EPA 8260	MSV/33922		
92272696005	**DS-16-(28-30)**	EPA 8260	MSV/33922		
92272696006	**TRIP BLANK 03**	EPA 8260	MSV/33922		
92272696008	**DS-34 (13-15)**	EPA 8260	MSV/33922		
92272696009	**DS-31 (13-15)**	EPA 8260	MSV/33922		
92272696010	**DS-34 (8-10)**	EPA 8260	MSV/33922		
92272696011	**DS-31 (8-10)**	EPA 8260	MSV/33922		
92272696012	**DS-33 (13-15)**	EPA 8260	MSV/33923		
92272696013	**DS-33 (8-10)**	EPA 8260	MSV/33941		
92272696014	**DS-21 (0-2)**	EPA 8260	MSV/33941		
92272696015	**DS-27 (0-2)**	EPA 8260	MSV/33941		
92272696016	**DS-21 (3-5)**	EPA 8260	MSV/33925		
92272696017	**DS-27 (3-5)**	EPA 8260	MSV/33925		
92272696018	**TRIP BLANK 04**	EPA 8260	MSV/33925		
92272696019	**DS-27 (8-10)**	EPA 8260	MSV/33925		
92272696020	**DS-24 (0-2)**	EPA 8260	MSV/33925		
92272696021	**DS-17 (18-20)**	EPA 8260	MSV/33925		
92272696022	**DS-17 (23-25)**	EPA 8260	MSV/33925		
92272696023	**DS-17 (28-30)**	EPA 8260	MSV/33925		
92272696024	**DS-20 (0-2)**	EPA 8260	MSV/33925		
92272696025	**DS-20 (3-5)**	EPA 8260	MSV/33925		
92272696026	**DS-20 (8-10)**	EPA 8260	MSV/33925		
92272696027	**DS-27 (13-15)**	EPA 8260	MSV/33925		
92272696028	**DS-24 (3-5)**	EPA 8260	MSV/33925		
92272696029	**DS-20 (13-15)**	EPA 8260	MSV/33925		
92272696030	**DS-22 (8-10)**	EPA 8260	MSV/33925		
92272696031	**DS-23 (3-5)**	EPA 8260	MSV/33925		
92272696032	**DS-20 (18-20)**	EPA 8260	MSV/33925		
92272696033	**DS-23 (0-2)**	EPA 8260	MSV/33925		
92272696034	**DS-22 (13-15)**	EPA 8260	MSV/33925		
92272696035	**DS-20 (23-25)**	EPA 8260	MSV/33925		
92272696036	**DS-20 (28-30)**	EPA 8260	MSV/33926		
92272696037	**TRIP BLANK 05**	EPA 8260	MSV/33926		
92272696038	**DS-26 (0-2)**	EPA 8260	MSV/33926		
92272696039	**DS-26 (3-5)**	EPA 8260	MSV/33926		
92272696040	**DS-26 (8-10)**	EPA 8260	MSV/33926		
92272696041	**DS-26 (13-15)**	EPA 8260	MSV/33926		
92272696042	**DS-26 (18-20)**	EPA 8260	MSV/33926		
92272696043	**DS-26 (23-25)**	EPA 8260	MSV/33941		
92272696044	**DS-26 (28-30)**	EPA 8260	MSV/33941		
92272696001	**DS7-(8-10)**	ASTM D2974-87	PMST/8483		

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92272696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92272696002	**DS7-(13-15)**	ASTM D2974-87	PMST/8483		
92272696003	**DS-16-(18-20)**	ASTM D2974-87	PMST/8483		
92272696004	**DS-16-(23-25)**	ASTM D2974-87	PMST/8483		
92272696005	**DS-16-(28-30)**	ASTM D2974-87	PMST/8483		
92272696008	**DS-34 (13-15)**	ASTM D2974-87	PMST/8483		
92272696009	**DS-31 (13-15)**	ASTM D2974-87	PMST/8483		
92272696010	**DS-34 (8-10)**	ASTM D2974-87	PMST/8483		
92272696011	**DS-31 (8-10)**	ASTM D2974-87	PMST/8483		
92272696012	**DS-33 (13-15)**	ASTM D2974-87	PMST/8483		
92272696013	**DS-33 (8-10)**	ASTM D2974-87	PMST/8483		
92272696014	**DS-21 (0-2)**	ASTM D2974-87	PMST/8483		
92272696015	**DS-27 (0-2)**	ASTM D2974-87	PMST/8483		
92272696016	**DS-21 (3-5)**	ASTM D2974-87	PMST/8483		
92272696017	**DS-27 (3-5)**	ASTM D2974-87	PMST/8483		
92272696019	**DS-27 (8-10)**	ASTM D2974-87	PMST/8483		
92272696020	**DS-24 (0-2)**	ASTM D2974-87	PMST/8483		
92272696021	**DS-17 (18-20)**	ASTM D2974-87	PMST/8483		
92272696022	**DS-17 (23-25)**	ASTM D2974-87	PMST/8483		
92272696023	**DS-17 (28-30)**	ASTM D2974-87	PMST/8484		
92272696024	**DS-20 (0-2)**	ASTM D2974-87	PMST/8484		
92272696025	**DS-20 (3-5)**	ASTM D2974-87	PMST/8484		
92272696026	**DS-20 (8-10)**	ASTM D2974-87	PMST/8484		
92272696027	**DS-27 (13-15)**	ASTM D2974-87	PMST/8484		
92272696028	**DS-24 (3-5)**	ASTM D2974-87	PMST/8484		
92272696029	**DS-20 (13-15)**	ASTM D2974-87	PMST/8484		
92272696030	**DS-22 (8-10)**	ASTM D2974-87	PMST/8484		
92272696031	**DS-23 (3-5)**	ASTM D2974-87	PMST/8484		
92272696032	**DS-20 (18-20)**	ASTM D2974-87	PMST/8484		
92272696033	**DS-23 (0-2)**	ASTM D2974-87	PMST/8484		
92272696034	**DS-22 (13-15)**	ASTM D2974-87	PMST/8484		
92272696035	**DS-20 (23-25)**	ASTM D2974-87	PMST/8484		
92272696036	**DS-20 (28-30)**	ASTM D2974-87	PMST/8484		
92272696038	**DS-26 (0-2)**	ASTM D2974-87	PMST/8484		
92272696039	**DS-26 (3-5)**	ASTM D2974-87	PMST/8484		
92272696040	**DS-26 (8-10)**	ASTM D2974-87	PMST/8484		
92272696041	**DS-26 (13-15)**	ASTM D2974-87	PMST/8484		
92272696042	**DS-26 (18-20)**	ASTM D2974-87	PMST/8484		
92272696043	**DS-26 (23-25)**	ASTM D2974-87	PMST/8484		
92272696044	**DS-26 (28-30)**	ASTM D2974-87	PMST/8485		

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 18, 2015 Page 1 of 2*
	Document Number: **F-CHR-CS-003-rev.16**	Issuing Authority: Pace Huntersville Quality Office

Client Name: AMEC

* Page 2 of 2 is for Internal Use Only

Courier: ☐ ~~Fed Ex~~ ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1402 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1402** No Correction

Corrected Cooler Temp.: 5.3 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10.21

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☐Yes ☑No ☐N/A	10. DS-27 (18-20) isn't intact.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:_____		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: DR **Date:** 10/21/15

SRF Review: DR **Date:** 10/21/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92272696

92272696

(if no label available)

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 4

1999348

Section A Required Client Information:

Company: AMEC
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: RBTC - Boone
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Y/N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test: 8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272696
1	DS 33 (8-10)	SL	G			10-20	1125		6								X	X		013
2	DS 21 (0-2)						1140		6								X	X		014
3	DS 27 (0-2)						1240		6								X	X		015
4	DS 27 (18-20)						1140		6								X	X		
5	DS 21 (3-5)						1145		6								X	X		016
6	DS 27 (3-5)						1200		6								X	X		017
7	Trip Blank 04						1155		6								X	X		018
8	DS 27 (8-10)						1210		6								X	X		019
9	DS 24 (0-2')						1205		6								X	X		020
10	DS 17 (18-20)						1140		6								X	X		021
11	DS 17 (23-25)						1145		6								X	X		022
12	DS 17 (28-30)						1150		6								X	X		023

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Lori Mauldin	10-20-15	1630	Fedex	10/21/15	9:50	5.3	Y	N	N

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Mauldin

SIGNATURE of SAMPLER: Lori Mauldin

DATE Signed (MM/DD/YY): 10-20-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Page: 3 of 4

1999355

Section A Required Client Information:

Company:	AMEC
Address:	
Email To:	
Phone: / Fax:	
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	CBTC Boone
Project Number:	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test (Y/N): 8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272696
1	DS-20 (0-2)	SL	G			10-20	1200		6								X	X		024
2	DS-20 (3-5)						1205		6								X	X		025
3	DS-20 (8-10)						1210		6								X	X		026
4	DS-27 (13-15)						1215		6								X	X		027
5	DS-24 (3-5)						1215		6								X	X		028
6	DS-20 (13-15)						1215		6								X	X		029
7	DS-22 (8-10)						1215		6								X	X		030
8	DS-23 (3-5)						1220		6								X	X		031
9	DS-20 (18-20)						1220		6								X	X		032
10	DS-23 (0-2)						1230		6								X	X		033
11	DS-22 (13-15)						1220		6								X	X		034
12	DS-20 (23-25)						1225		6								X	X		035

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Maulin	10-20	1630	FedEx	10.21.15	930	5.3	Y	N	N

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Maulin

SIGNATURE of SAMPLER: Lori Maulin

DATE Signed (MM/DD/YY): 10-20-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 4

1999597

Section A Required Client Information:

Company: AMEC
Address: 37 Villa Rd
Greenville SC 29615
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To: Paul Johnstone
Copy To: Tim Renn
Purchase Order No.: C012504993
Project Name: RBTC-Boone
Project Number: 6251121001

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/GRAB DATE	COLLECTED Composite End/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test (Y/N): 8260 (5035)	8260 VOCs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272696
1	DS-7 (8-10)	SL	G			10-19	1700		6								X	X			001
2	DS-7 (13-15)					10-19	1715		6								X	X			002
3	DS-16 (18-20)						1645		6								X	X			003
4	DS-16 (23-25)						1650		6								X	X			004
5	DS-16 (28-30)						1655		6								X	X			005
6	Trip Blank 03					10-20	800		6								X	X			006
7	FB-02	WT					1150		3				3						X		007
8	DS-34 (13-15)						1100		6								X	X			008
9	DS-31 (13-15)						1120		6								X	X			009
10	DS-34 (8-10)						1120		6								X	X			010
11	DS-31 (8-10)						1133		6								X	X			011
12	DS-33 (8-13.5)						1125		6								X	X			012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Maulden	10-20-15	1630	FedEx	10-21-15	900	S.S	Y	n	n

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Maulden

SIGNATURE of SAMPLER: Lori Maulden

DATE Signed (MM/DD/YY): 10-20-15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 4 of 4

1698596

Section A Required Client Information:

Company: AMEC
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: LBTC - Boone
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Y/N; Analysis Test: 8260 (5035)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test 8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. (92272696)
1	DS-20 (28-30)	SL	G			10-20	1230		6								X	X		036
2	Trip Blank 05						1230		6								X	X		037
3	DS-26 (0-2)						1445		6								X	X		038
4	DS-26 (3-5)						1450		6								X	X		039
5	DS-26 (8-10)						1500		6								X	X		040
6	DS-26 (13-15)						1505		6								X	X		041
7	DS-26 (18-20)						1500		6								X	X		042
8	DS-26 (23-25)						1510		6								X	X		043
9	DS-26 (28-30)						1515		6								X	X		044
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Maulding	10-20-15	1630	[illegible]	10-21-15	930	5.3	Y	N	N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Maulding

SIGNATURE of SAMPLER: Lori Maulding

DATE Signed (MM/DD/YY): 10-20-15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

October 29, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on October 22, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

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Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92272895001	**TRIP BLANK 06**	Solid	10/20/15 17:00	10/22/15 09:45
92272895002	**DS-28 (0-2)**	Solid	10/20/15 16:25	10/22/15 09:45
92272895003	**DS-28 (3-5)**	Solid	10/20/15 16:30	10/22/15 09:45
92272895004	**DS-28 (8-10)**	Solid	10/20/15 16:25	10/22/15 09:45
92272895005	**DS-28 (13-15)**	Solid	10/20/15 16:30	10/22/15 09:45
92272895006	**DS-28 (18-20)**	Solid	10/20/15 16:30	10/22/15 09:45
92272895007	**DS-28 (23-25)**	Solid	10/20/15 16:40	10/22/15 09:45
92272895008	**DS-28 (28-30)**	Solid	10/20/15 16:35	10/22/15 09:45
92272895009	**FB-03**	Water	10/21/15 11:00	10/22/15 09:45
92272895010	**DS-36A (23-25)**	Solid	10/21/15 11:15	10/22/15 09:45
92272895011	**DS-37 (18-20)**	Solid	10/21/15 11:20	10/22/15 09:45
92272895012	**DS-37 (23-25)**	Solid	10/21/15 11:30	10/22/15 09:45
92272895013	**DS-40 (3-5)**	Solid	10/21/15 11:30	10/22/15 09:45
92272895014	**DS-40 (0-2)**	Solid	10/21/15 11:25	10/22/15 09:45
92272895015	**DS-37 (28-30)**	Solid	10/21/15 11:35	10/22/15 09:45
92272895016	**DS-49 (3-5)**	Solid	10/21/15 11:35	10/22/15 09:45
92272895017	**DS-49 (0-2)**	Solid	10/21/15 11:35	10/22/15 09:45
92272895018	**TRIP BLANK 07**	Solid	10/21/15 12:00	10/22/15 09:45
92272895019	**DS-49 (8-10)**	Solid	10/21/15 11:40	10/22/15 09:45
92272895020	**DS-49 (13-15)**	Solid	10/21/15 11:40	10/22/15 09:45
92272895021	**DS-48 (3-5)**	Solid	10/21/15 12:15	10/22/15 09:45
92272895022	**DS-39 (28-30)**	Solid	10/21/15 12:15	10/22/15 09:45
92272895023	**DS-47 (0-2)**	Solid	10/21/15 12:20	10/22/15 09:45
92272895024	**DS-39 (23-25)**	Solid	10/21/15 12:20	10/22/15 09:45
92272895025	**DS-48 (0-2)**	Solid	10/21/15 12:20	10/22/15 09:45
92272895026	**DS-46 (0-2)**	Solid	10/21/15 12:15	10/22/15 09:45
92272895027	**DS-47 (3-5)**	Solid	10/21/15 12:30	10/22/15 09:45
92272895028	**DS-39 (18-20)**	Solid	10/21/15 12:30	10/22/15 09:45
92272895029	**DS-43 (0-2)**	Solid	10/21/15 12:25	10/22/15 09:45
92272895030	**DS-38 (0-2)**	Solid	10/21/15 12:35	10/22/15 09:45
92272895031	**DS-38 (28-30)**	Solid	10/21/15 12:35	10/22/15 09:45
92272895032	**DS-43 (3-5)**	Solid	10/21/15 12:30	10/22/15 09:45
92272895033	**DS-42 (3-5)**	Solid	10/21/15 12:40	10/22/15 09:45
92272895034	**DS-38 (18-20)**	Solid	10/21/15 12:40	10/22/15 09:45
92272895035	**TRIP BLANK 08**	Solid	10/21/15 12:45	10/22/15 09:45
92272895036	**DS-38 (23-25)**	Solid	10/21/15 12:35	10/22/15 09:45
92272895037	**DS-38 (3-5)**	Solid	10/21/15 12:45	10/22/15 09:45

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SAMPLE SUMMARY

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92272895038	**DS-45 (0-2)**	Solid	10/21/15 12:50	10/22/15 09:45
92272895039	**DS-42 (0-2)**	Solid	10/21/15 12:50	10/22/15 09:45
92272895040	**DS-45 (3-5)**	Solid	10/21/15 12:55	10/22/15 09:45
92272895041	**DS-39 (3-5)**	Solid	10/21/15 12:55	10/22/15 09:45
92272895042	**DS-50 (3-5)**	Solid	10/21/15 13:00	10/22/15 09:45
92272895043	**DS-39 (0-2)**	Solid	10/21/15 13:00	10/22/15 09:45
92272895044	**DS-50 (0-2)**	Solid	10/21/15 12:40	10/22/15 09:45
92272895045	**DS-50 (8-10)**	Solid	10/21/15 13:10	10/22/15 09:45
92272895046	**DS-50 (13-15)**	Solid	10/21/15 13:05	10/22/15 09:45
92272895047	**DS-46 (3-5)**	Solid	10/21/15 12:45	10/22/15 09:45

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SAMPLE ANALYTE COUNT

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272895001	**TRIP BLANK 06**	EPA 8260	DLK	71	PASI-C
92272895002	**DS-28 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895003	**DS-28 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895004	**DS-28 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895005	**DS-28 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895006	**DS-28 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895007	**DS-28 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895008	**DS-28 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895009	**FB-03**	EPA 8260	NB	63	PASI-C
92272895010	**DS-36A (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895011	**DS-37 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895012	**DS-37 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895013	**DS-40 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895014	**DS-40 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895015	**DS-37 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895016	**DS-49 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895017	**DS-49 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895018	**TRIP BLANK 07**	EPA 8260	DLK	71	PASI-C
92272895019	**DS-49 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895020	**DS-49 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272895021	**DS-48 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895022	**DS-39 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895023	**DS-47 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895024	**DS-39 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895025	**DS-48 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895026	**DS-46 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895027	**DS-47 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895028	**DS-39 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895029	**DS-43 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895030	**DS-38 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895031	**DS-38 (28-30)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895032	**DS-43 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895033	**DS-42 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895034	**DS-38 (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895035	**TRIP BLANK 08**	EPA 8260	DLK	71	PASI-C
92272895036	**DS-38 (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895037	**DS-38 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895038	**DS-45 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895039	**DS-42 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92272895040	**DS-45 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895041	**DS-39 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895042	**DS-50 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895043	**DS-39 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895044	**DS-50 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895045	**DS-50 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895046	**DS-50 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92272895047	**DS-46 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Greenville, SC
Date: October 29, 2015

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/33976

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272889012

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1591173)
  - Hexachloro-1,3-butadiene
- MSD (Lab ID: 1591174)
  - 2,2-Dichloropropane
  - Hexachloro-1,3-butadiene
  - Vinyl chloride

R1: RPD value was outside control limits.

- MSD (Lab ID: 1591174)
  - Bromomethane

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 29, 2015

General Information:
46 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/33971

S0: Surrogate recovery outside laboratory control limits.
- DS-45 (0-2) (Lab ID: 92272895038)
  - 1,2-Dichloroethane-d4 (S)
- LCS (Lab ID: 1591160)
  - 1,2-Dichloroethane-d4 (S)

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- DS-38 (18-20) (Lab ID: 92272895034)
  - 1,2-Dichloroethane-d4 (S)

QC Batch: MSV/33991

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- DS-39 (0-2) (Lab ID: 92272895043)
  - 1,2-Dichloroethane-d4 (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- BLANK (Lab ID: 1591589)
  - 1,2-Dichloroethane-d4 (S)
- DS-39 (3-5) (Lab ID: 92272895041)
  - 1,2-Dichloroethane-d4 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 29, 2015

QC Batch: MSV/33985

B: Analyte was detected in the associated method blank.

- BLANK for HBN 287124 [MSV/3398 (Lab ID: 1591391)
  - Naphthalene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/33942

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1590224)
  - 1,1,2-Trichloroethane

QC Batch: MSV/33971

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1591160)
  - 2,2-Dichloropropane
  - 2-Butanone (MEK)
  - Bromochloromethane

QC Batch: MSV/33991

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1591590)
  - 1,1,2,2-Tetrachloroethane
  - Vinyl acetate

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/33941

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272895002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1591058)
  - 1,2,3-Trichlorobenzene
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,3-Dichlorobenzene
  - 1,4-Dichlorobenzene
  - Hexachloro-1,3-butadiene
  - Naphthalene
  - Tetrachloroethene
  - n-Butylbenzene
  - p-Isopropyltoluene

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 29, 2015

QC Batch: MSV/33970

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272895021

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1591244)
  - Acetone
  - Methylene Chloride

QC Batch: MSV/33971

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92272895036

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1591271)
  - 2-Butanone (MEK)

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1591271)
  - Acetone
  - Hexachloro-1,3-butadiene

QC Batch: MSV/33985

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92273176001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1592094)
  - Acetone

QC Batch: MSV/33991

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92273201001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 1592108)
  - 1,1,2,2-Tetrachloroethane
  - Vinyl acetate

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1592108)
  - 1,1,1,2-Tetrachloroethane
  - 1,2,3-Trichlorobenzene
  - 1,2,4-Trichlorobenzene
  - 1,2,4-Trimethylbenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dichlorobenzene
  - 1,3,5-Trimethylbenzene
  - 1,3-Dichlorobenzene
  - 1,4-Dichlorobenzene
  - 1,4-Dioxane (p-Dioxane)
  - 2-Chlorotoluene
  - 4-Chlorotoluene
  - Acetone
  - Bromobenzene

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 29, 2015

QC Batch: MSV/33991

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92273201001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Bromoform
- Carbon tetrachloride
- Dibromochloromethane
- Ethylbenzene
- Hexachloro-1,3-butadiene
- Isopropylbenzene (Cumene)
- Methylene Chloride
- Naphthalene
- Styrene
- Tetrachloroethene
- cis-1,3-Dichloropropene
- m&p-Xylene
- n-Butylbenzene
- n-Propylbenzene
- o-Xylene
- p-Isopropyltoluene
- sec-Butylbenzene
- tert-Butylbenzene
- trans-1,3-Dichloropropene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MSV/33971

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1591245)
  - Tetrachloroethene
  - cis-1,2-Dichloroethene

QC Batch: MSV/33991

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1592107)
  - Tetrachloroethene

Additional Comments:

Analyte Comments:

QC Batch: MSV/33941

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DS-28 (13-15) (Lab ID: 92272895005)
  - Toluene-d8 (S)

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PROJECT NARRATIVE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: October 29, 2015

Analyte Comments:

QC Batch: MSV/33971

C9: Common Laboratory Contaminant.

- DS-38 (18-20) (Lab ID: 92272895034)
  - Methylene Chloride

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: TRIP BLANK 06 **Lab ID: 92272895001** Collected: 10/20/15 17:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**10.9J**	ug/kg	100	10.0	1		10/23/15 20:10	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/23/15 20:10	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/23/15 20:10	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/23/15 20:10	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/23/15 20:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		10/23/15 20:10	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/23/15 20:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/23/15 20:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/23/15 20:10	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/23/15 20:10	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/23/15 20:10	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/23/15 20:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/23/15 20:10	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/23/15 20:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/23/15 20:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/23/15 20:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/23/15 20:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/23/15 20:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/23/15 20:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/23/15 20:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/23/15 20:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/23/15 20:10	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/23/15 20:10	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/23/15 20:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	99-87-6	
Methylene Chloride	**5.8J**	ug/kg	20.0	3.0	1		10/23/15 20:10	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: TRIP BLANK 06 **Lab ID: 92272895001** Collected: 10/20/15 17:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/23/15 20:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/23/15 20:10	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/23/15 20:10	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/23/15 20:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/23/15 20:10	127-18-4	
Toluene	**3.4J**	ug/kg	5.0	1.8	1		10/23/15 20:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/23/15 20:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/23/15 20:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/23/15 20:10	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/23/15 20:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/23/15 20:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/23/15 20:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/23/15 20:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/23/15 20:10	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/23/15 20:10	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/23/15 20:10	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/23/15 20:10	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/23/15 20:10	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/23/15 20:10	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/23/15 20:10	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/23/15 20:10	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		10/23/15 20:10	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (0-2) **Lab ID: 92272895002** Collected: 10/20/15 16:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**27.7J**	ug/kg	98.4	9.8	1		10/23/15 20:30	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		10/23/15 20:30	71-43-2	
Bromobenzene	ND	ug/kg	4.9	2.0	1		10/23/15 20:30	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	75-27-4	
Bromoform	ND	ug/kg	4.9	2.3	1		10/23/15 20:30	75-25-2	
Bromomethane	ND	ug/kg	9.8	2.5	1		10/23/15 20:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	98.4	2.9	1		10/23/15 20:30	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	104-51-8	M1
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		10/23/15 20:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	2.0	1		10/23/15 20:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.6	1		10/23/15 20:30	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	108-90-7	
Chloroethane	ND	ug/kg	9.8	2.4	1		10/23/15 20:30	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		10/23/15 20:30	67-66-3	
Chloromethane	ND	ug/kg	9.8	2.4	1		10/23/15 20:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1		10/23/15 20:30	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.5	1		10/23/15 20:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	95-50-1	M1
1,3-Dichlorobenzene	ND	ug/kg	4.9	2.0	1		10/23/15 20:30	541-73-1	M1
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	106-46-7	M1
Dichlorodifluoromethane	ND	ug/kg	9.8	3.5	1		10/23/15 20:30	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		10/23/15 20:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.2	1		10/23/15 20:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	75-35-4	
cis-1,2-Dichloroethene	**1.7J**	ug/kg	4.9	1.4	1		10/23/15 20:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/23/15 20:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/23/15 20:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	148	118	1		10/23/15 20:30	123-91-1	
Ethylbenzene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	2.0	1		10/23/15 20:30	87-68-3	M1
2-Hexanone	ND	ug/kg	49.2	3.8	1		10/23/15 20:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	99-87-6	M1
Methylene Chloride	**13.6J**	ug/kg	19.7	3.0	1		10/23/15 20:30	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (0-2) **Lab ID: 92272895002** Collected: 10/20/15 16:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.2	3.6	1		10/23/15 20:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		10/23/15 20:30	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		10/23/15 20:30	91-20-3	M1
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		10/23/15 20:30	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.1	1		10/23/15 20:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	79-34-5	
Tetrachloroethene	**2.7J**	ug/kg	4.9	1.7	1		10/23/15 20:30	127-18-4	M1
Toluene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.2	1		10/23/15 20:30	87-61-6	M1
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		10/23/15 20:30	120-82-1	M1
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.1	1		10/23/15 20:30	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.1	1		10/23/15 20:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.2	1		10/23/15 20:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		10/23/15 20:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	2.0	1		10/23/15 20:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.8	1		10/23/15 20:30	108-67-8	
Vinyl acetate	ND	ug/kg	49.2	8.7	1		10/23/15 20:30	108-05-4	
Vinyl chloride	ND	ug/kg	9.8	1.8	1		10/23/15 20:30	75-01-4	
Xylene (Total)	ND	ug/kg	9.8	3.5	1		10/23/15 20:30	1330-20-7	
m&p-Xylene	ND	ug/kg	9.8	3.5	1		10/23/15 20:30	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.9	1		10/23/15 20:30	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/23/15 20:30	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		10/23/15 20:30	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-132		1		10/23/15 20:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.1**	%	0.10	0.10	1		10/23/15 08:14		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (3-5) **Lab ID: 92272895003** Collected: 10/20/15 16:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.6J**	ug/kg	95.9	9.6	1		10/23/15 20:50	67-64-1	
Benzene	ND	ug/kg	4.8	1.5	1		10/23/15 20:50	71-43-2	
Bromobenzene	ND	ug/kg	4.8	1.9	1		10/23/15 20:50	108-86-1	
Bromochloromethane	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	74-97-5	
Bromodichloromethane	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	75-27-4	
Bromoform	ND	ug/kg	4.8	2.2	1		10/23/15 20:50	75-25-2	
Bromomethane	ND	ug/kg	9.6	2.4	1		10/23/15 20:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	95.9	2.8	1		10/23/15 20:50	78-93-3	
n-Butylbenzene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.8	1.5	1		10/23/15 20:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.8	1.9	1		10/23/15 20:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.8	2.5	1		10/23/15 20:50	56-23-5	
Chlorobenzene	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	108-90-7	
Chloroethane	ND	ug/kg	9.6	2.3	1		10/23/15 20:50	75-00-3	
Chloroform	ND	ug/kg	4.8	1.5	1		10/23/15 20:50	67-66-3	
Chloromethane	ND	ug/kg	9.6	2.3	1		10/23/15 20:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.8	3.5	1		10/23/15 20:50	96-12-8	
Dibromochloromethane	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	106-93-4	
Dibromomethane	ND	ug/kg	4.8	2.4	1		10/23/15 20:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.8	1.9	1		10/23/15 20:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.6	3.5	1		10/23/15 20:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.8	1.4	1		10/23/15 20:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.8	2.1	1		10/23/15 20:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.8	1.3	1		10/23/15 20:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.8	1.4	1		10/23/15 20:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.8	1.4	1		10/23/15 20:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	144	115	1		10/23/15 20:50	123-91-1	
Ethylbenzene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.8	1.9	1		10/23/15 20:50	87-68-3	
2-Hexanone	ND	ug/kg	47.9	3.7	1		10/23/15 20:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	99-87-6	
Methylene Chloride	**7.4J**	ug/kg	19.2	2.9	1		10/23/15 20:50	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (3-5) **Lab ID: 92272895003** Collected: 10/20/15 16:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	47.9	3.5	1		10/23/15 20:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.8	1.4	1		10/23/15 20:50	1634-04-4	
Naphthalene	ND	ug/kg	4.8	1.2	1		10/23/15 20:50	91-20-3	
n-Propylbenzene	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	103-65-1	
Styrene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.8	2.0	1		10/23/15 20:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	79-34-5	
Tetrachloroethene	ND	ug/kg	4.8	1.6	1		10/23/15 20:50	127-18-4	
Toluene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.8	2.1	1		10/23/15 20:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.8	1.5	1		10/23/15 20:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.8	2.0	1		10/23/15 20:50	79-00-5	
Trichloroethene	ND	ug/kg	4.8	2.0	1		10/23/15 20:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.8	2.1	1		10/23/15 20:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.8	1.5	1		10/23/15 20:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.8	1.9	1		10/23/15 20:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.8	1.7	1		10/23/15 20:50	108-67-8	
Vinyl acetate	ND	ug/kg	47.9	8.4	1		10/23/15 20:50	108-05-4	
Vinyl chloride	ND	ug/kg	9.6	1.7	1		10/23/15 20:50	75-01-4	
Xylene (Total)	ND	ug/kg	9.6	3.5	1		10/23/15 20:50	1330-20-7	
m&p-Xylene	ND	ug/kg	9.6	3.5	1		10/23/15 20:50	179601-23-1	
o-Xylene	ND	ug/kg	4.8	1.8	1		10/23/15 20:50	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/23/15 20:50	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/23/15 20:50	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		10/23/15 20:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.8**	%	0.10	0.10	1		10/23/15 08:15		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (8-10) **Lab ID: 92272895004** Collected: 10/20/15 16:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**603J**	ug/kg	5290	529	50		10/23/15 21:10	67-64-1	
Benzene	ND	ug/kg	264	84.6	50		10/23/15 21:10	71-43-2	
Bromobenzene	ND	ug/kg	264	106	50		10/23/15 21:10	108-86-1	
Bromochloromethane	ND	ug/kg	264	89.9	50		10/23/15 21:10	74-97-5	
Bromodichloromethane	ND	ug/kg	264	100	50		10/23/15 21:10	75-27-4	
Bromoform	ND	ug/kg	264	122	50		10/23/15 21:10	75-25-2	
Bromomethane	ND	ug/kg	529	132	50		10/23/15 21:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	5290	153	50		10/23/15 21:10	78-93-3	
n-Butylbenzene	**186J**	ug/kg	264	95.2	50		10/23/15 21:10	104-51-8	
sec-Butylbenzene	**183J**	ug/kg	264	84.6	50		10/23/15 21:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	264	106	50		10/23/15 21:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	264	137	50		10/23/15 21:10	56-23-5	
Chlorobenzene	ND	ug/kg	264	100	50		10/23/15 21:10	108-90-7	
Chloroethane	ND	ug/kg	529	127	50		10/23/15 21:10	75-00-3	
Chloroform	ND	ug/kg	264	84.6	50		10/23/15 21:10	67-66-3	
Chloromethane	ND	ug/kg	529	127	50		10/23/15 21:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	264	89.9	50		10/23/15 21:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	264	95.2	50		10/23/15 21:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	264	190	50		10/23/15 21:10	96-12-8	
Dibromochloromethane	ND	ug/kg	264	95.2	50		10/23/15 21:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	264	95.2	50		10/23/15 21:10	106-93-4	
Dibromomethane	ND	ug/kg	264	132	50		10/23/15 21:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	264	100	50		10/23/15 21:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	264	106	50		10/23/15 21:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	264	89.9	50		10/23/15 21:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	529	190	50		10/23/15 21:10	75-71-8	
1,1-Dichloroethane	**635**	ug/kg	264	79.3	50		10/23/15 21:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	264	116	50		10/23/15 21:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	264	95.2	50		10/23/15 21:10	75-35-4	
cis-1,2-Dichloroethene	**846**	ug/kg	264	74.0	50		10/23/15 21:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	264	100	50		10/23/15 21:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	264	89.9	50		10/23/15 21:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	264	100	50		10/23/15 21:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	264	89.9	50		10/23/15 21:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	264	79.3	50		10/23/15 21:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	264	95.2	50		10/23/15 21:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	264	79.3	50		10/23/15 21:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	264	89.9	50		10/23/15 21:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	7930	6340	50		10/23/15 21:10	123-91-1	
Ethylbenzene	**28400**	ug/kg	2640	952	500		10/24/15 13:39	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	264	106	50		10/23/15 21:10	87-68-3	
2-Hexanone	ND	ug/kg	2640	206	50		10/23/15 21:10	591-78-6	
Isopropylbenzene (Cumene)	**968**	ug/kg	264	100	50		10/23/15 21:10	98-82-8	
p-Isopropyltoluene	**447**	ug/kg	264	89.9	50		10/23/15 21:10	99-87-6	
Methylene Chloride	**223J**	ug/kg	1060	159	50		10/23/15 21:10	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (8-10) **Lab ID: 92272895004** Collected: 10/20/15 16:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	2640	196	50		10/23/15 21:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	264	79.3	50		10/23/15 21:10	1634-04-4	
Naphthalene	**1420**	ug/kg	264	63.4	50		10/23/15 21:10	91-20-3	
n-Propylbenzene	**405**	ug/kg	264	89.9	50		10/23/15 21:10	103-65-1	
Styrene	ND	ug/kg	264	95.2	50		10/23/15 21:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	264	111	50		10/23/15 21:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	264	100	50		10/23/15 21:10	79-34-5	
Tetrachloroethene	ND	ug/kg	264	89.9	50		10/23/15 21:10	127-18-4	
Toluene	**3230**	ug/kg	264	95.2	50		10/23/15 21:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	264	116	50		10/23/15 21:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	264	84.6	50		10/23/15 21:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	264	95.2	50		10/23/15 21:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	264	111	50		10/23/15 21:10	79-00-5	
Trichloroethene	**120J**	ug/kg	264	111	50		10/23/15 21:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	264	116	50		10/23/15 21:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	264	84.6	50		10/23/15 21:10	96-18-4	
1,2,4-Trimethylbenzene	**1950**	ug/kg	264	106	50		10/23/15 21:10	95-63-6	
1,3,5-Trimethylbenzene	**921**	ug/kg	264	95.2	50		10/23/15 21:10	108-67-8	
Vinyl acetate	ND	ug/kg	2640	465	50		10/23/15 21:10	108-05-4	
Vinyl chloride	ND	ug/kg	529	95.2	50		10/23/15 21:10	75-01-4	
Xylene (Total)	**211000**	ug/kg	5290	1900	500		10/24/15 13:39	1330-20-7	
m&p-Xylene	**154000**	ug/kg	5290	1900	500		10/24/15 13:39	179601-23-1	
o-Xylene	**56700**	ug/kg	2640	1000	500		10/24/15 13:39	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		50		10/23/15 21:10	2037-26-5	
4-Bromofluorobenzene (S)	109	%	70-130		50		10/23/15 21:10	460-00-4	
1,2-Dichloroethane-d4 (S)	122	%	70-132		50		10/23/15 21:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.2**	%	0.10	0.10	1		10/23/15 08:15		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (13-15) **Lab ID: 92272895005** Collected: 10/20/15 16:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	3310	331	25		10/23/15 21:30	67-64-1	
Benzene	ND	ug/kg	166	53.0	25		10/23/15 21:30	71-43-2	
Bromobenzene	ND	ug/kg	166	66.3	25		10/23/15 21:30	108-86-1	
Bromochloromethane	ND	ug/kg	166	56.3	25		10/23/15 21:30	74-97-5	
Bromodichloromethane	ND	ug/kg	166	62.9	25		10/23/15 21:30	75-27-4	
Bromoform	ND	ug/kg	166	76.2	25		10/23/15 21:30	75-25-2	
Bromomethane	ND	ug/kg	331	82.8	25		10/23/15 21:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	3310	96.1	25		10/23/15 21:30	78-93-3	
n-Butylbenzene	ND	ug/kg	166	59.6	25		10/23/15 21:30	104-51-8	
sec-Butylbenzene	ND	ug/kg	166	53.0	25		10/23/15 21:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	166	66.3	25		10/23/15 21:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	166	86.1	25		10/23/15 21:30	56-23-5	
Chlorobenzene	ND	ug/kg	166	62.9	25		10/23/15 21:30	108-90-7	
Chloroethane	ND	ug/kg	331	79.5	25		10/23/15 21:30	75-00-3	
Chloroform	ND	ug/kg	166	53.0	25		10/23/15 21:30	67-66-3	
Chloromethane	ND	ug/kg	331	79.5	25		10/23/15 21:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	166	56.3	25		10/23/15 21:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	166	59.6	25		10/23/15 21:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	166	119	25		10/23/15 21:30	96-12-8	
Dibromochloromethane	ND	ug/kg	166	59.6	25		10/23/15 21:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	166	59.6	25		10/23/15 21:30	106-93-4	
Dibromomethane	ND	ug/kg	166	82.8	25		10/23/15 21:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	166	62.9	25		10/23/15 21:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	166	66.3	25		10/23/15 21:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	166	56.3	25		10/23/15 21:30	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	331	119	25		10/23/15 21:30	75-71-8	
1,1-Dichloroethane	ND	ug/kg	166	49.7	25		10/23/15 21:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	166	72.9	25		10/23/15 21:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	166	59.6	25		10/23/15 21:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	166	46.4	25		10/23/15 21:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	166	62.9	25		10/23/15 21:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	166	56.3	25		10/23/15 21:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	166	62.9	25		10/23/15 21:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	166	56.3	25		10/23/15 21:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	166	49.7	25		10/23/15 21:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	166	59.6	25		10/23/15 21:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	166	49.7	25		10/23/15 21:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	166	56.3	25		10/23/15 21:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	4970	3980	25		10/23/15 21:30	123-91-1	
Ethylbenzene	**282**	ug/kg	166	59.6	25		10/23/15 21:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	166	66.3	25		10/23/15 21:30	87-68-3	
2-Hexanone	ND	ug/kg	1660	129	25		10/23/15 21:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	166	62.9	25		10/23/15 21:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	166	56.3	25		10/23/15 21:30	99-87-6	
Methylene Chloride	**153J**	ug/kg	663	99.4	25		10/23/15 21:30	75-09-2	

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (13-15) **Lab ID: 92272895005** Collected: 10/20/15 16:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1660	123	25		10/23/15 21:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	166	49.7	25		10/23/15 21:30	1634-04-4	
Naphthalene	**48.1J**	ug/kg	166	39.8	25		10/23/15 21:30	91-20-3	
n-Propylbenzene	ND	ug/kg	166	56.3	25		10/23/15 21:30	103-65-1	
Styrene	ND	ug/kg	166	59.6	25		10/23/15 21:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	166	69.6	25		10/23/15 21:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	166	62.9	25		10/23/15 21:30	79-34-5	
Tetrachloroethene	ND	ug/kg	166	56.3	25		10/23/15 21:30	127-18-4	
Toluene	ND	ug/kg	166	59.6	25		10/23/15 21:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	166	72.9	25		10/23/15 21:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	166	53.0	25		10/23/15 21:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	166	59.6	25		10/23/15 21:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	166	69.6	25		10/23/15 21:30	79-00-5	
Trichloroethene	ND	ug/kg	166	69.6	25		10/23/15 21:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	166	72.9	25		10/23/15 21:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	166	53.0	25		10/23/15 21:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	166	66.3	25		10/23/15 21:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	166	59.6	25		10/23/15 21:30	108-67-8	
Vinyl acetate	ND	ug/kg	1660	292	25		10/23/15 21:30	108-05-4	
Vinyl chloride	ND	ug/kg	331	59.6	25		10/23/15 21:30	75-01-4	
Xylene (Total)	**2150**	ug/kg	331	119	25		10/23/15 21:30	1330-20-7	
m&p-Xylene	**1630**	ug/kg	331	119	25		10/23/15 21:30	179601-23-1	
o-Xylene	**521**	ug/kg	166	62.9	25		10/23/15 21:30	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		25		10/23/15 21:30	2037-26-5	D3
4-Bromofluorobenzene (S)	102	%	70-130		25		10/23/15 21:30	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		25		10/23/15 21:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.4**	%	0.10	0.10	1		10/23/15 08:15		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (18-20) **Lab ID: 92272895006** Collected: 10/20/15 16:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**16.6J**	ug/kg	108	10.8	1		10/23/15 21:49	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/23/15 21:49	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		10/23/15 21:49	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/23/15 21:49	75-25-2	
Bromomethane	ND	ug/kg	10.8	2.7	1		10/23/15 21:49	74-83-9	
2-Butanone (MEK)	ND	ug/kg	108	3.1	1		10/23/15 21:49	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/23/15 21:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		10/23/15 21:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/23/15 21:49	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	108-90-7	
Chloroethane	ND	ug/kg	10.8	2.6	1		10/23/15 21:49	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/23/15 21:49	67-66-3	
Chloromethane	ND	ug/kg	10.8	2.6	1		10/23/15 21:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/23/15 21:49	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/23/15 21:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		10/23/15 21:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.8	3.9	1		10/23/15 21:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/23/15 21:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/23/15 21:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/23/15 21:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/23/15 21:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/23/15 21:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	163	130	1		10/23/15 21:49	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		10/23/15 21:49	87-68-3	
2-Hexanone	ND	ug/kg	54.2	4.2	1		10/23/15 21:49	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	99-87-6	
Methylene Chloride	**7.2J**	ug/kg	21.7	3.3	1		10/23/15 21:49	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (18-20) **Lab ID: 92272895006** Collected: 10/20/15 16:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.2	4.0	1		10/23/15 21:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/23/15 21:49	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/23/15 21:49	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	103-65-1	
Styrene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		10/23/15 21:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/23/15 21:49	127-18-4	
Toluene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/23/15 21:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/23/15 21:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		10/23/15 21:49	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		10/23/15 21:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/23/15 21:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/23/15 21:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		10/23/15 21:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	2.0	1		10/23/15 21:49	108-67-8	
Vinyl acetate	ND	ug/kg	54.2	9.5	1		10/23/15 21:49	108-05-4	
Vinyl chloride	ND	ug/kg	10.8	2.0	1		10/23/15 21:49	75-01-4	
Xylene (Total)	ND	ug/kg	10.8	3.9	1		10/23/15 21:49	1330-20-7	
m&p-Xylene	ND	ug/kg	10.8	3.9	1		10/23/15 21:49	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.1	1		10/23/15 21:49	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/23/15 21:49	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/23/15 21:49	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/23/15 21:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.1**	%	0.10	0.10	1		10/23/15 08:15		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (23-25) **Lab ID: 92272895007** Collected: 10/20/15 16:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**33.2J**	ug/kg	158	15.8	1		10/23/15 22:09	67-64-1	
Benzene	ND	ug/kg	7.9	2.5	1		10/23/15 22:09	71-43-2	
Bromobenzene	ND	ug/kg	7.9	3.2	1		10/23/15 22:09	108-86-1	
Bromochloromethane	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	74-97-5	
Bromodichloromethane	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	75-27-4	
Bromoform	ND	ug/kg	7.9	3.6	1		10/23/15 22:09	75-25-2	
Bromomethane	ND	ug/kg	15.8	4.0	1		10/23/15 22:09	74-83-9	
2-Butanone (MEK)	**14.1J**	ug/kg	158	4.6	1		10/23/15 22:09	78-93-3	
n-Butylbenzene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.9	2.5	1		10/23/15 22:09	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.9	3.2	1		10/23/15 22:09	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.9	4.1	1		10/23/15 22:09	56-23-5	
Chlorobenzene	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	108-90-7	
Chloroethane	ND	ug/kg	15.8	3.8	1		10/23/15 22:09	75-00-3	
Chloroform	ND	ug/kg	7.9	2.5	1		10/23/15 22:09	67-66-3	
Chloromethane	ND	ug/kg	15.8	3.8	1		10/23/15 22:09	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.9	5.7	1		10/23/15 22:09	96-12-8	
Dibromochloromethane	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	106-93-4	
Dibromomethane	ND	ug/kg	7.9	4.0	1		10/23/15 22:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.9	3.2	1		10/23/15 22:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.8	5.7	1		10/23/15 22:09	75-71-8	
1,1-Dichloroethane	ND	ug/kg	7.9	2.4	1		10/23/15 22:09	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.9	3.5	1		10/23/15 22:09	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.9	2.2	1		10/23/15 22:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.9	2.4	1		10/23/15 22:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.9	2.4	1		10/23/15 22:09	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	238	190	1		10/23/15 22:09	123-91-1	
Ethylbenzene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.9	3.2	1		10/23/15 22:09	87-68-3	
2-Hexanone	ND	ug/kg	79.2	6.2	1		10/23/15 22:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	99-87-6	
Methylene Chloride	**17.5J**	ug/kg	31.7	4.8	1		10/23/15 22:09	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (23-25) **Lab ID: 92272895007** Collected: 10/20/15 16:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	79.2	5.9	1		10/23/15 22:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.9	2.4	1		10/23/15 22:09	1634-04-4	
Naphthalene	ND	ug/kg	7.9	1.9	1		10/23/15 22:09	91-20-3	
n-Propylbenzene	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	103-65-1	
Styrene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.9	3.3	1		10/23/15 22:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	79-34-5	
Tetrachloroethene	ND	ug/kg	7.9	2.7	1		10/23/15 22:09	127-18-4	
Toluene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.9	3.5	1		10/23/15 22:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.9	2.5	1		10/23/15 22:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.9	3.3	1		10/23/15 22:09	79-00-5	L2
Trichloroethene	ND	ug/kg	7.9	3.3	1		10/23/15 22:09	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.9	3.5	1		10/23/15 22:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.9	2.5	1		10/23/15 22:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.9	3.2	1		10/23/15 22:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.9	2.9	1		10/23/15 22:09	108-67-8	
Vinyl acetate	ND	ug/kg	79.2	13.9	1		10/23/15 22:09	108-05-4	
Vinyl chloride	ND	ug/kg	15.8	2.9	1		10/23/15 22:09	75-01-4	
Xylene (Total)	ND	ug/kg	15.8	5.7	1		10/23/15 22:09	1330-20-7	
m&p-Xylene	ND	ug/kg	15.8	5.7	1		10/23/15 22:09	179601-23-1	
o-Xylene	ND	ug/kg	7.9	3.0	1		10/23/15 22:09	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/23/15 22:09	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/23/15 22:09	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/23/15 22:09	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.6**	%	0.10	0.10	1		10/23/15 08:15		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (28-30) **Lab ID: 92272895008** Collected: 10/20/15 16:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**19.4J**	ug/kg	126	12.6	1		10/23/15 22:29	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		10/23/15 22:29	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		10/23/15 22:29	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		10/23/15 22:29	75-25-2	
Bromomethane	ND	ug/kg	12.6	3.1	1		10/23/15 22:29	74-83-9	
2-Butanone (MEK)	ND	ug/kg	126	3.7	1		10/23/15 22:29	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		10/23/15 22:29	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		10/23/15 22:29	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		10/23/15 22:29	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	108-90-7	
Chloroethane	ND	ug/kg	12.6	3.0	1		10/23/15 22:29	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		10/23/15 22:29	67-66-3	
Chloromethane	ND	ug/kg	12.6	3.0	1		10/23/15 22:29	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.5	1		10/23/15 22:29	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.1	1		10/23/15 22:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		10/23/15 22:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.6	4.5	1		10/23/15 22:29	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		10/23/15 22:29	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		10/23/15 22:29	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.3	1.8	1		10/23/15 22:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		10/23/15 22:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		10/23/15 22:29	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	189	151	1		10/23/15 22:29	123-91-1	
Ethylbenzene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		10/23/15 22:29	87-68-3	
2-Hexanone	ND	ug/kg	63.0	4.9	1		10/23/15 22:29	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	99-87-6	
Methylene Chloride	**12.3J**	ug/kg	25.2	3.8	1		10/23/15 22:29	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-28 (28-30) **Lab ID: 92272895008** Collected: 10/20/15 16:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.0	4.7	1		10/23/15 22:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		10/23/15 22:29	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		10/23/15 22:29	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.6	1		10/23/15 22:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.1	1		10/23/15 22:29	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		10/23/15 22:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		10/23/15 22:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.6	1		10/23/15 22:29	79-00-5	L2
Trichloroethene	ND	ug/kg	6.3	2.6	1		10/23/15 22:29	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		10/23/15 22:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		10/23/15 22:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		10/23/15 22:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		10/23/15 22:29	108-67-8	
Vinyl acetate	ND	ug/kg	63.0	11.1	1		10/23/15 22:29	108-05-4	
Vinyl chloride	ND	ug/kg	12.6	2.3	1		10/23/15 22:29	75-01-4	
Xylene (Total)	ND	ug/kg	12.6	4.5	1		10/23/15 22:29	1330-20-7	
m&p-Xylene	ND	ug/kg	12.6	4.5	1		10/23/15 22:29	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		10/23/15 22:29	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/23/15 22:29	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1		10/23/15 22:29	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-132		1		10/23/15 22:29	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.8**	%	0.10	0.10	1		10/23/15 08:15		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: FB-03 **Lab ID: 92272895009** Collected: 10/21/15 11:00 Received: 10/22/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		10/26/15 03:04	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		10/26/15 03:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		10/26/15 03:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		10/26/15 03:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		10/26/15 03:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		10/26/15 03:04	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		10/26/15 03:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		10/26/15 03:04	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		10/26/15 03:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		10/26/15 03:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		10/26/15 03:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		10/26/15 03:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		10/26/15 03:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		10/26/15 03:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		10/26/15 03:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		10/26/15 03:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		10/26/15 03:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		10/26/15 03:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		10/26/15 03:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		10/26/15 03:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		10/26/15 03:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		10/26/15 03:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		10/26/15 03:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		10/26/15 03:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		10/26/15 03:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		10/26/15 03:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		10/26/15 03:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		10/26/15 03:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		10/26/15 03:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		10/26/15 03:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		10/26/15 03:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		10/26/15 03:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		10/26/15 03:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		10/26/15 03:04	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		10/26/15 03:04	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/26/15 03:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		10/26/15 03:04	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		10/26/15 03:04	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		10/26/15 03:04	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		10/26/15 03:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		10/26/15 03:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		10/26/15 03:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		10/26/15 03:04	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		10/26/15 03:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		10/26/15 03:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		10/26/15 03:04	79-34-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: FB-03 **Lab ID: 92272895009** Collected: 10/21/15 11:00 Received: 10/22/15 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Tetrachloroethene	ND	ug/L	1.0	0.46	1		10/26/15 03:04	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		10/26/15 03:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		10/26/15 03:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		10/26/15 03:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		10/26/15 03:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		10/26/15 03:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		10/26/15 03:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		10/26/15 03:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		10/26/15 03:04	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		10/26/15 03:04	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		10/26/15 03:04	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		10/26/15 03:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		10/26/15 03:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		10/26/15 03:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		10/26/15 03:04	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/26/15 03:04	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		10/26/15 03:04	2037-26-5	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-36A (23-25) **Lab ID: 92272895010** Collected: 10/21/15 11:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**33.6J**	ug/kg	131	13.1	1		10/24/15 21:14	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1		10/24/15 21:14	71-43-2	
Bromobenzene	ND	ug/kg	6.5	2.6	1		10/24/15 21:14	108-86-1	
Bromochloromethane	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1		10/24/15 21:14	75-25-2	
Bromomethane	ND	ug/kg	13.1	3.3	1		10/24/15 21:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	131	3.8	1		10/24/15 21:14	78-93-3	
n-Butylbenzene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.5	2.1	1		10/24/15 21:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.5	2.6	1		10/24/15 21:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1		10/24/15 21:14	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	108-90-7	
Chloroethane	ND	ug/kg	13.1	3.1	1		10/24/15 21:14	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1		10/24/15 21:14	67-66-3	
Chloromethane	ND	ug/kg	13.1	3.1	1		10/24/15 21:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.7	1		10/24/15 21:14	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	106-93-4	
Dibromomethane	ND	ug/kg	6.5	3.3	1		10/24/15 21:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1		10/24/15 21:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.1	4.7	1		10/24/15 21:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	2.0	1		10/24/15 21:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.9	1		10/24/15 21:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1		10/24/15 21:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.5	2.0	1		10/24/15 21:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	2.0	1		10/24/15 21:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	196	157	1		10/24/15 21:14	123-91-1	
Ethylbenzene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.5	2.6	1		10/24/15 21:14	87-68-3	
2-Hexanone	ND	ug/kg	65.4	5.1	1		10/24/15 21:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	99-87-6	
Methylene Chloride	**12.7J**	ug/kg	26.2	3.9	1		10/24/15 21:14	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-36A (23-25) **Lab ID: 92272895010** Collected: 10/21/15 11:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.4	4.8	1		10/24/15 21:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.5	2.0	1		10/24/15 21:14	1634-04-4	
Naphthalene	ND	ug/kg	6.5	1.6	1		10/24/15 21:14	91-20-3	
n-Propylbenzene	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	103-65-1	
Styrene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.5	2.7	1		10/24/15 21:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	79-34-5	
Tetrachloroethene	ND	ug/kg	6.5	2.2	1		10/24/15 21:14	127-18-4	
Toluene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.9	1		10/24/15 21:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1		10/24/15 21:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1		10/24/15 21:14	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1		10/24/15 21:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.5	2.9	1		10/24/15 21:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.5	2.1	1		10/24/15 21:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.5	2.6	1		10/24/15 21:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.5	2.4	1		10/24/15 21:14	108-67-8	
Vinyl acetate	ND	ug/kg	65.4	11.5	1		10/24/15 21:14	108-05-4	
Vinyl chloride	ND	ug/kg	13.1	2.4	1		10/24/15 21:14	75-01-4	
Xylene (Total)	ND	ug/kg	13.1	4.7	1		10/24/15 21:14	1330-20-7	
m&p-Xylene	ND	ug/kg	13.1	4.7	1		10/24/15 21:14	179601-23-1	
o-Xylene	ND	ug/kg	6.5	2.5	1		10/24/15 21:14	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/24/15 21:14	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1		10/24/15 21:14	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/24/15 21:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.3**	%	0.10	0.10	1		10/23/15 08:20		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-37 (18-20) **Lab ID: 92272895011** Collected: 10/21/15 11:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**24.4J**	ug/kg	119	11.9	1		10/24/15 21:34	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		10/24/15 21:34	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		10/24/15 21:34	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	75-27-4	
Bromoform	ND	ug/kg	6.0	2.7	1		10/24/15 21:34	75-25-2	
Bromomethane	ND	ug/kg	11.9	3.0	1		10/24/15 21:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	119	3.5	1		10/24/15 21:34	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		10/24/15 21:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		10/24/15 21:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		10/24/15 21:34	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	108-90-7	
Chloroethane	ND	ug/kg	11.9	2.9	1		10/24/15 21:34	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		10/24/15 21:34	67-66-3	
Chloromethane	ND	ug/kg	11.9	2.9	1		10/24/15 21:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		10/24/15 21:34	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		10/24/15 21:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		10/24/15 21:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.9	4.3	1		10/24/15 21:34	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.0	1.8	1		10/24/15 21:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.6	1		10/24/15 21:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.0	1.7	1		10/24/15 21:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/24/15 21:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		10/24/15 21:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	179	143	1		10/24/15 21:34	123-91-1	
Ethylbenzene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		10/24/15 21:34	87-68-3	
2-Hexanone	ND	ug/kg	59.6	4.6	1		10/24/15 21:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	99-87-6	
Methylene Chloride	**17.5J**	ug/kg	23.8	3.6	1		10/24/15 21:34	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-37 (18-20) **Lab ID: 92272895011** Collected: 10/21/15 11:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.6	4.4	1		10/24/15 21:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		10/24/15 21:34	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		10/24/15 21:34	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	103-65-1	
Styrene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		10/24/15 21:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	79-34-5	
Tetrachloroethene	ND	ug/kg	6.0	2.0	1		10/24/15 21:34	127-18-4	
Toluene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.6	1		10/24/15 21:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		10/24/15 21:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		10/24/15 21:34	79-00-5	
Trichloroethene	ND	ug/kg	6.0	2.5	1		10/24/15 21:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.6	1		10/24/15 21:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		10/24/15 21:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		10/24/15 21:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.1	1		10/24/15 21:34	108-67-8	
Vinyl acetate	ND	ug/kg	59.6	10.5	1		10/24/15 21:34	108-05-4	
Vinyl chloride	ND	ug/kg	11.9	2.1	1		10/24/15 21:34	75-01-4	
Xylene (Total)	ND	ug/kg	11.9	4.3	1		10/24/15 21:34	1330-20-7	
m&p-Xylene	ND	ug/kg	11.9	4.3	1		10/24/15 21:34	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		10/24/15 21:34	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/24/15 21:34	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/24/15 21:34	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/24/15 21:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.2**	%	0.10	0.10	1		10/23/15 08:20		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-37 (23-25) **Lab ID: 92272895012** Collected: 10/21/15 11:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**22.1J**	ug/kg	129	12.9	1		10/25/15 16:18	67-64-1	
Benzene	ND	ug/kg	6.4	2.1	1		10/25/15 16:18	71-43-2	
Bromobenzene	ND	ug/kg	6.4	2.6	1		10/25/15 16:18	108-86-1	
Bromochloromethane	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	74-97-5	
Bromodichloromethane	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	75-27-4	
Bromoform	ND	ug/kg	6.4	3.0	1		10/25/15 16:18	75-25-2	
Bromomethane	ND	ug/kg	12.9	3.2	1		10/25/15 16:18	74-83-9	
2-Butanone (MEK)	ND	ug/kg	129	3.7	1		10/25/15 16:18	78-93-3	
n-Butylbenzene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.4	2.1	1		10/25/15 16:18	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.4	2.6	1		10/25/15 16:18	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.4	3.3	1		10/25/15 16:18	56-23-5	
Chlorobenzene	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	108-90-7	
Chloroethane	ND	ug/kg	12.9	3.1	1		10/25/15 16:18	75-00-3	
Chloroform	ND	ug/kg	6.4	2.1	1		10/25/15 16:18	67-66-3	
Chloromethane	ND	ug/kg	12.9	3.1	1		10/25/15 16:18	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.4	4.6	1		10/25/15 16:18	96-12-8	
Dibromochloromethane	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	106-93-4	
Dibromomethane	ND	ug/kg	6.4	3.2	1		10/25/15 16:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.4	2.6	1		10/25/15 16:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.9	4.6	1		10/25/15 16:18	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.4	1.9	1		10/25/15 16:18	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.4	2.8	1		10/25/15 16:18	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.4	1.8	1		10/25/15 16:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.4	1.9	1		10/25/15 16:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.4	1.9	1		10/25/15 16:18	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	193	154	1		10/25/15 16:18	123-91-1	
Ethylbenzene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.4	2.6	1		10/25/15 16:18	87-68-3	
2-Hexanone	ND	ug/kg	64.3	5.0	1		10/25/15 16:18	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	99-87-6	
Methylene Chloride	**10.3J**	ug/kg	25.7	3.9	1		10/25/15 16:18	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-37 (23-25) **Lab ID: 92272895012** Collected: 10/21/15 11:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.3	4.8	1		10/25/15 16:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.4	1.9	1		10/25/15 16:18	1634-04-4	
Naphthalene	ND	ug/kg	6.4	1.5	1		10/25/15 16:18	91-20-3	
n-Propylbenzene	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	103-65-1	
Styrene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.4	2.7	1		10/25/15 16:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	79-34-5	
Tetrachloroethene	ND	ug/kg	6.4	2.2	1		10/25/15 16:18	127-18-4	
Toluene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.4	2.8	1		10/25/15 16:18	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.4	2.1	1		10/25/15 16:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.4	2.7	1		10/25/15 16:18	79-00-5	
Trichloroethene	ND	ug/kg	6.4	2.7	1		10/25/15 16:18	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.4	2.8	1		10/25/15 16:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.4	2.1	1		10/25/15 16:18	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.4	2.6	1		10/25/15 16:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.4	2.3	1		10/25/15 16:18	108-67-8	
Vinyl acetate	ND	ug/kg	64.3	11.3	1		10/25/15 16:18	108-05-4	
Vinyl chloride	ND	ug/kg	12.9	2.3	1		10/25/15 16:18	75-01-4	
Xylene (Total)	ND	ug/kg	12.9	4.6	1		10/25/15 16:18	1330-20-7	
m&p-Xylene	ND	ug/kg	12.9	4.6	1		10/25/15 16:18	179601-23-1	
o-Xylene	ND	ug/kg	6.4	2.4	1		10/25/15 16:18	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 16:18	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/25/15 16:18	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-132		1		10/25/15 16:18	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.2**	%	0.10	0.10	1		10/23/15 08:20		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-40 (3-5) **Lab ID: 92272895013** Collected: 10/21/15 11:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	109	10.9	1		10/25/15 16:37	67-64-1	
Benzene	ND	ug/kg	5.5	1.7	1		10/25/15 16:37	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/25/15 16:37	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/25/15 16:37	75-25-2	
Bromomethane	ND	ug/kg	10.9	2.7	1		10/25/15 16:37	74-83-9	
2-Butanone (MEK)	ND	ug/kg	109	3.2	1		10/25/15 16:37	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.7	1		10/25/15 16:37	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/25/15 16:37	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.8	1		10/25/15 16:37	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	108-90-7	
Chloroethane	ND	ug/kg	10.9	2.6	1		10/25/15 16:37	75-00-3	
Chloroform	ND	ug/kg	5.5	1.7	1		10/25/15 16:37	67-66-3	
Chloromethane	ND	ug/kg	10.9	2.6	1		10/25/15 16:37	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	3.9	1		10/25/15 16:37	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.7	1		10/25/15 16:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/25/15 16:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.9	3.9	1		10/25/15 16:37	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.6	1		10/25/15 16:37	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/25/15 16:37	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	75-35-4	
cis-1,2-Dichloroethene	**9.8**	ug/kg	5.5	1.5	1		10/25/15 16:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/25/15 16:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/25/15 16:37	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	164	131	1		10/25/15 16:37	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/25/15 16:37	87-68-3	
2-Hexanone	ND	ug/kg	54.6	4.3	1		10/25/15 16:37	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	99-87-6	
Methylene Chloride	**13.2J**	ug/kg	21.8	3.3	1		10/25/15 16:37	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-40 (3-5) **Lab ID: 92272895013** Collected: 10/21/15 11:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.6	4.0	1		10/25/15 16:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.6	1		10/25/15 16:37	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/25/15 16:37	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/25/15 16:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	79-34-5	
Tetrachloroethene	ND	ug/kg	5.5	1.9	1		10/25/15 16:37	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/25/15 16:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.7	1		10/25/15 16:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/25/15 16:37	79-00-5	
Trichloroethene	**4.3J**	ug/kg	5.5	2.3	1		10/25/15 16:37	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/25/15 16:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.7	1		10/25/15 16:37	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/25/15 16:37	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/25/15 16:37	108-67-8	
Vinyl acetate	ND	ug/kg	54.6	9.6	1		10/25/15 16:37	108-05-4	
Vinyl chloride	ND	ug/kg	10.9	2.0	1		10/25/15 16:37	75-01-4	
Xylene (Total)	ND	ug/kg	10.9	3.9	1		10/25/15 16:37	1330-20-7	
m&p-Xylene	ND	ug/kg	10.9	3.9	1		10/25/15 16:37	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/25/15 16:37	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/25/15 16:37	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/25/15 16:37	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-132		1		10/25/15 16:37	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.2**	%	0.10	0.10	1		10/23/15 08:20		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-40 (0-2) **Lab ID: 92272895014** Collected: 10/21/15 11:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	99.2	9.9	1		10/25/15 16:57	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/25/15 16:57	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/25/15 16:57	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/25/15 16:57	75-25-2	
Bromomethane	ND	ug/kg	9.9	2.5	1		10/25/15 16:57	74-83-9	
2-Butanone (MEK)	ND	ug/kg	99.2	2.9	1		10/25/15 16:57	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/25/15 16:57	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/25/15 16:57	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/25/15 16:57	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	108-90-7	
Chloroethane	ND	ug/kg	9.9	2.4	1		10/25/15 16:57	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/25/15 16:57	67-66-3	
Chloromethane	ND	ug/kg	9.9	2.4	1		10/25/15 16:57	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/25/15 16:57	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/25/15 16:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/25/15 16:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.9	3.6	1		10/25/15 16:57	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/25/15 16:57	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/25/15 16:57	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	75-35-4	
cis-1,2-Dichloroethene	**4.0J**	ug/kg	5.0	1.4	1		10/25/15 16:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/25/15 16:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/25/15 16:57	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	149	119	1		10/25/15 16:57	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/25/15 16:57	87-68-3	
2-Hexanone	ND	ug/kg	49.6	3.9	1		10/25/15 16:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	99-87-6	
Methylene Chloride	**8.9J**	ug/kg	19.8	3.0	1		10/25/15 16:57	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-40 (0-2) **Lab ID: 92272895014** Collected: 10/21/15 11:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.6	3.7	1		10/25/15 16:57	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/25/15 16:57	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/25/15 16:57	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/25/15 16:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/25/15 16:57	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/25/15 16:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/25/15 16:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/25/15 16:57	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/25/15 16:57	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/25/15 16:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/25/15 16:57	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/25/15 16:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 16:57	108-67-8	
Vinyl acetate	ND	ug/kg	49.6	8.7	1		10/25/15 16:57	108-05-4	
Vinyl chloride	ND	ug/kg	9.9	1.8	1		10/25/15 16:57	75-01-4	
Xylene (Total)	ND	ug/kg	9.9	3.6	1		10/25/15 16:57	1330-20-7	
m&p-Xylene	ND	ug/kg	9.9	3.6	1		10/25/15 16:57	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/25/15 16:57	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/25/15 16:57	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/25/15 16:57	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-132		1		10/25/15 16:57	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.3**	%	0.10	0.10	1		10/23/15 08:20		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-37 (28-30) **Lab ID: 92272895015** Collected: 10/21/15 11:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**23.9J**	ug/kg	126	12.6	1		10/25/15 17:17	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		10/25/15 17:17	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		10/25/15 17:17	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		10/25/15 17:17	75-25-2	
Bromomethane	ND	ug/kg	12.6	3.2	1		10/25/15 17:17	74-83-9	
2-Butanone (MEK)	**19.9J**	ug/kg	126	3.7	1		10/25/15 17:17	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		10/25/15 17:17	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		10/25/15 17:17	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		10/25/15 17:17	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	108-90-7	
Chloroethane	ND	ug/kg	12.6	3.0	1		10/25/15 17:17	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		10/25/15 17:17	67-66-3	
Chloromethane	ND	ug/kg	12.6	3.0	1		10/25/15 17:17	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.5	1		10/25/15 17:17	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.2	1		10/25/15 17:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		10/25/15 17:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.6	4.5	1		10/25/15 17:17	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		10/25/15 17:17	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		10/25/15 17:17	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.3	1.8	1		10/25/15 17:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		10/25/15 17:17	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		10/25/15 17:17	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	189	151	1		10/25/15 17:17	123-91-1	
Ethylbenzene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		10/25/15 17:17	87-68-3	
2-Hexanone	ND	ug/kg	63.1	4.9	1		10/25/15 17:17	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	99-87-6	
Methylene Chloride	**13.5J**	ug/kg	25.2	3.8	1		10/25/15 17:17	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-37 (28-30) **Lab ID: 92272895015** Collected: 10/21/15 11:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.1	4.7	1		10/25/15 17:17	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		10/25/15 17:17	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		10/25/15 17:17	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.6	1		10/25/15 17:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.1	1		10/25/15 17:17	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		10/25/15 17:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		10/25/15 17:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.6	1		10/25/15 17:17	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.6	1		10/25/15 17:17	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		10/25/15 17:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		10/25/15 17:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		10/25/15 17:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		10/25/15 17:17	108-67-8	
Vinyl acetate	ND	ug/kg	63.1	11.1	1		10/25/15 17:17	108-05-4	
Vinyl chloride	ND	ug/kg	12.6	2.3	1		10/25/15 17:17	75-01-4	
Xylene (Total)	ND	ug/kg	12.6	4.5	1		10/25/15 17:17	1330-20-7	
m&p-Xylene	ND	ug/kg	12.6	4.5	1		10/25/15 17:17	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		10/25/15 17:17	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/25/15 17:17	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/25/15 17:17	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/25/15 17:17	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.7**	%	0.10	0.10	1		10/23/15 08:21		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (3-5) **Lab ID: 92272895016** Collected: 10/21/15 11:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**96.1J**	ug/kg	128	12.8	1		10/25/15 17:37	67-64-1	
Benzene	ND	ug/kg	6.4	2.1	1		10/25/15 17:37	71-43-2	
Bromobenzene	ND	ug/kg	6.4	2.6	1		10/25/15 17:37	108-86-1	
Bromochloromethane	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	74-97-5	
Bromodichloromethane	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	75-27-4	
Bromoform	ND	ug/kg	6.4	2.9	1		10/25/15 17:37	75-25-2	
Bromomethane	ND	ug/kg	12.8	3.2	1		10/25/15 17:37	74-83-9	
2-Butanone (MEK)	**15.7J**	ug/kg	128	3.7	1		10/25/15 17:37	78-93-3	
n-Butylbenzene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.4	2.1	1		10/25/15 17:37	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.4	2.6	1		10/25/15 17:37	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.4	3.3	1		10/25/15 17:37	56-23-5	
Chlorobenzene	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	108-90-7	
Chloroethane	ND	ug/kg	12.8	3.1	1		10/25/15 17:37	75-00-3	
Chloroform	ND	ug/kg	6.4	2.1	1		10/25/15 17:37	67-66-3	
Chloromethane	ND	ug/kg	12.8	3.1	1		10/25/15 17:37	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.4	4.6	1		10/25/15 17:37	96-12-8	
Dibromochloromethane	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	106-93-4	
Dibromomethane	ND	ug/kg	6.4	3.2	1		10/25/15 17:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.4	2.6	1		10/25/15 17:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.8	4.6	1		10/25/15 17:37	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.4	1.9	1		10/25/15 17:37	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.4	2.8	1		10/25/15 17:37	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	75-35-4	
cis-1,2-Dichloroethene	**2.6J**	ug/kg	6.4	1.8	1		10/25/15 17:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.4	1.9	1		10/25/15 17:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.4	1.9	1		10/25/15 17:37	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	192	154	1		10/25/15 17:37	123-91-1	
Ethylbenzene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.4	2.6	1		10/25/15 17:37	87-68-3	
2-Hexanone	ND	ug/kg	64.1	5.0	1		10/25/15 17:37	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	99-87-6	
Methylene Chloride	**14.3J**	ug/kg	25.6	3.8	1		10/25/15 17:37	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (3-5) **Lab ID: 92272895016** Collected: 10/21/15 11:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.1	4.7	1		10/25/15 17:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.4	1.9	1		10/25/15 17:37	1634-04-4	
Naphthalene	ND	ug/kg	6.4	1.5	1		10/25/15 17:37	91-20-3	
n-Propylbenzene	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	103-65-1	
Styrene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.4	2.7	1		10/25/15 17:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	79-34-5	
Tetrachloroethene	ND	ug/kg	6.4	2.2	1		10/25/15 17:37	127-18-4	
Toluene	**8.4**	ug/kg	6.4	2.3	1		10/25/15 17:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.4	2.8	1		10/25/15 17:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.4	2.1	1		10/25/15 17:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.4	2.7	1		10/25/15 17:37	79-00-5	
Trichloroethene	**13.4**	ug/kg	6.4	2.7	1		10/25/15 17:37	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.4	2.8	1		10/25/15 17:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.4	2.1	1		10/25/15 17:37	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.4	2.6	1		10/25/15 17:37	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.4	2.3	1		10/25/15 17:37	108-67-8	
Vinyl acetate	ND	ug/kg	64.1	11.3	1		10/25/15 17:37	108-05-4	
Vinyl chloride	ND	ug/kg	12.8	2.3	1		10/25/15 17:37	75-01-4	
Xylene (Total)	ND	ug/kg	12.8	4.6	1		10/25/15 17:37	1330-20-7	
m&p-Xylene	ND	ug/kg	12.8	4.6	1		10/25/15 17:37	179601-23-1	
o-Xylene	ND	ug/kg	6.4	2.4	1		10/25/15 17:37	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/25/15 17:37	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		10/25/15 17:37	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-132		1		10/25/15 17:37	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.5**	%	0.10	0.10	1		10/23/15 08:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (0-2) **Lab ID: 92272895017** Collected: 10/21/15 11:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	103	10.3	1		10/25/15 17:56	67-64-1	
Benzene	ND	ug/kg	5.1	1.6	1		10/25/15 17:56	71-43-2	
Bromobenzene	ND	ug/kg	5.1	2.1	1		10/25/15 17:56	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	75-27-4	
Bromoform	ND	ug/kg	5.1	2.4	1		10/25/15 17:56	75-25-2	
Bromomethane	ND	ug/kg	10.3	2.6	1		10/25/15 17:56	74-83-9	
2-Butanone (MEK)	ND	ug/kg	103	3.0	1		10/25/15 17:56	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1.6	1		10/25/15 17:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	2.1	1		10/25/15 17:56	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	2.7	1		10/25/15 17:56	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	108-90-7	
Chloroethane	ND	ug/kg	10.3	2.5	1		10/25/15 17:56	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		10/25/15 17:56	67-66-3	
Chloromethane	ND	ug/kg	10.3	2.5	1		10/25/15 17:56	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.7	1		10/25/15 17:56	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	106-93-4	
Dibromomethane	ND	ug/kg	5.1	2.6	1		10/25/15 17:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.1	1		10/25/15 17:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.3	3.7	1		10/25/15 17:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.1	1.5	1		10/25/15 17:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.3	1		10/25/15 17:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.1	1.4	1		10/25/15 17:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1.5	1		10/25/15 17:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		10/25/15 17:56	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	154	123	1		10/25/15 17:56	123-91-1	
Ethylbenzene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	2.1	1		10/25/15 17:56	87-68-3	
2-Hexanone	ND	ug/kg	51.3	4.0	1		10/25/15 17:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	99-87-6	
Methylene Chloride	**7.6J**	ug/kg	20.5	3.1	1		10/25/15 17:56	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (0-2) **Lab ID: 92272895017** Collected: 10/21/15 11:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.3	3.8	1		10/25/15 17:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		10/25/15 17:56	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1.2	1		10/25/15 17:56	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	103-65-1	
Styrene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	2.2	1		10/25/15 17:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	79-34-5	
Tetrachloroethene	ND	ug/kg	5.1	1.7	1		10/25/15 17:56	127-18-4	
Toluene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.3	1		10/25/15 17:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		10/25/15 17:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.2	1		10/25/15 17:56	79-00-5	
Trichloroethene	**2.3J**	ug/kg	5.1	2.2	1		10/25/15 17:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.3	1		10/25/15 17:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1.6	1		10/25/15 17:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	2.1	1		10/25/15 17:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1.8	1		10/25/15 17:56	108-67-8	
Vinyl acetate	ND	ug/kg	51.3	9.0	1		10/25/15 17:56	108-05-4	
Vinyl chloride	ND	ug/kg	10.3	1.8	1		10/25/15 17:56	75-01-4	
Xylene (Total)	ND	ug/kg	10.3	3.7	1		10/25/15 17:56	1330-20-7	
m&p-Xylene	ND	ug/kg	10.3	3.7	1		10/25/15 17:56	179601-23-1	
o-Xylene	ND	ug/kg	5.1	1.9	1		10/25/15 17:56	95-47-6	
Surrogates									
Toluene-d8 (S)	96	%	70-130		1		10/25/15 17:56	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/25/15 17:56	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/25/15 17:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.9**	%	0.10	0.10	1		10/23/15 08:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: TRIP BLANK 07 **Lab ID: 92272895018** Collected: 10/21/15 12:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		10/25/15 18:16	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/25/15 18:16	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/25/15 18:16	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/25/15 18:16	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/25/15 18:16	74-83-9	
2-Butanone (MEK)	**14.4J**	ug/kg	100	2.9	1		10/25/15 18:16	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/25/15 18:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/25/15 18:16	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/25/15 18:16	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/25/15 18:16	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/25/15 18:16	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/25/15 18:16	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/25/15 18:16	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/25/15 18:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/25/15 18:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/25/15 18:16	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/25/15 18:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/25/15 18:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/25/15 18:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/25/15 18:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/25/15 18:16	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/25/15 18:16	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/25/15 18:16	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/25/15 18:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	99-87-6	
Methylene Chloride	ND	ug/kg	20.0	3.0	1		10/25/15 18:16	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: TRIP BLANK 07 **Lab ID: 92272895018** Collected: 10/21/15 12:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/25/15 18:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/25/15 18:16	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/25/15 18:16	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/25/15 18:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/25/15 18:16	127-18-4	
Toluene	**3.5J**	ug/kg	5.0	1.8	1		10/25/15 18:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/25/15 18:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/25/15 18:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/25/15 18:16	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/25/15 18:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/25/15 18:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/25/15 18:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/25/15 18:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 18:16	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/25/15 18:16	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/25/15 18:16	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/25/15 18:16	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/25/15 18:16	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/25/15 18:16	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 18:16	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/25/15 18:16	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		10/25/15 18:16	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (8-10) **Lab ID: 92272895019** Collected: 10/21/15 11:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**60.8J**	ug/kg	118	11.8	1		10/25/15 18:36	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		10/25/15 18:36	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.4	1		10/25/15 18:36	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		10/25/15 18:36	75-25-2	
Bromomethane	ND	ug/kg	11.8	3.0	1		10/25/15 18:36	74-83-9	
2-Butanone (MEK)	ND	ug/kg	118	3.4	1		10/25/15 18:36	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		10/25/15 18:36	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.4	1		10/25/15 18:36	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		10/25/15 18:36	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	108-90-7	
Chloroethane	ND	ug/kg	11.8	2.8	1		10/25/15 18:36	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		10/25/15 18:36	67-66-3	
Chloromethane	ND	ug/kg	11.8	2.8	1		10/25/15 18:36	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.3	1		10/25/15 18:36	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	106-93-4	
Dibromomethane	ND	ug/kg	5.9	3.0	1		10/25/15 18:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.4	1		10/25/15 18:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.8	4.3	1		10/25/15 18:36	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		10/25/15 18:36	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		10/25/15 18:36	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.7	1		10/25/15 18:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/25/15 18:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		10/25/15 18:36	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	177	142	1		10/25/15 18:36	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.4	1		10/25/15 18:36	87-68-3	
2-Hexanone	ND	ug/kg	59.1	4.6	1		10/25/15 18:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	99-87-6	
Methylene Chloride	**11.1J**	ug/kg	23.6	3.5	1		10/25/15 18:36	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (8-10) **Lab ID: 92272895019** Collected: 10/21/15 11:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.1	4.4	1		10/25/15 18:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		10/25/15 18:36	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		10/25/15 18:36	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		10/25/15 18:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		10/25/15 18:36	127-18-4	
Toluene	**2.9J**	ug/kg	5.9	2.1	1		10/25/15 18:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		10/25/15 18:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		10/25/15 18:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		10/25/15 18:36	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		10/25/15 18:36	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		10/25/15 18:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		10/25/15 18:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.4	1		10/25/15 18:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		10/25/15 18:36	108-67-8	
Vinyl acetate	ND	ug/kg	59.1	10.4	1		10/25/15 18:36	108-05-4	
Vinyl chloride	ND	ug/kg	11.8	2.1	1		10/25/15 18:36	75-01-4	
Xylene (Total)	ND	ug/kg	11.8	4.3	1		10/25/15 18:36	1330-20-7	
m&p-Xylene	ND	ug/kg	11.8	4.3	1		10/25/15 18:36	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		10/25/15 18:36	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/25/15 18:36	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/25/15 18:36	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-132		1		10/25/15 18:36	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.1**	%	0.10	0.10	1		10/23/15 09:08		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (13-15) **Lab ID: 92272895020** Collected: 10/21/15 11:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**18.7J**	ug/kg	116	11.6	1		10/25/15 18:56	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		10/25/15 18:56	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/25/15 18:56	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/25/15 18:56	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		10/25/15 18:56	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		10/25/15 18:56	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		10/25/15 18:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/25/15 18:56	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/25/15 18:56	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		10/25/15 18:56	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		10/25/15 18:56	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		10/25/15 18:56	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/25/15 18:56	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/25/15 18:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/25/15 18:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		10/25/15 18:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/25/15 18:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.6	1		10/25/15 18:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/25/15 18:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/25/15 18:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/25/15 18:56	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	174	139	1		10/25/15 18:56	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/25/15 18:56	87-68-3	
2-Hexanone	ND	ug/kg	58.0	4.5	1		10/25/15 18:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	99-87-6	
Methylene Chloride	**8.6J**	ug/kg	23.2	3.5	1		10/25/15 18:56	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-49 (13-15) **Lab ID: 92272895020** Collected: 10/21/15 11:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.0	4.3	1		10/25/15 18:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/25/15 18:56	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/25/15 18:56	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/25/15 18:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/25/15 18:56	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.6	1		10/25/15 18:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		10/25/15 18:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/25/15 18:56	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/25/15 18:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.6	1		10/25/15 18:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		10/25/15 18:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/25/15 18:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/25/15 18:56	108-67-8	
Vinyl acetate	ND	ug/kg	58.0	10.2	1		10/25/15 18:56	108-05-4	
Vinyl chloride	ND	ug/kg	11.6	2.1	1		10/25/15 18:56	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		10/25/15 18:56	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		10/25/15 18:56	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/25/15 18:56	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 18:56	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/25/15 18:56	460-00-4	
1,2-Dichloroethane-d4 (S)	123	%	70-132		1		10/25/15 18:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.0**	%	0.10	0.10	1		10/23/15 09:09		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-48 (3-5) **Lab ID: 92272895021** Collected: 10/21/15 12:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**10.6J**	ug/kg	85.4	8.5	1		10/25/15 19:16	67-64-1	M1
Benzene	ND	ug/kg	4.3	1.4	1		10/25/15 19:16	71-43-2	
Bromobenzene	ND	ug/kg	4.3	1.7	1		10/25/15 19:16	108-86-1	
Bromochloromethane	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	74-97-5	
Bromodichloromethane	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	75-27-4	
Bromoform	ND	ug/kg	4.3	2.0	1		10/25/15 19:16	75-25-2	
Bromomethane	ND	ug/kg	8.5	2.1	1		10/25/15 19:16	74-83-9	
2-Butanone (MEK)	ND	ug/kg	85.4	2.5	1		10/25/15 19:16	78-93-3	
n-Butylbenzene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.3	1.4	1		10/25/15 19:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.3	1.7	1		10/25/15 19:16	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.3	2.2	1		10/25/15 19:16	56-23-5	
Chlorobenzene	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	108-90-7	
Chloroethane	ND	ug/kg	8.5	2.0	1		10/25/15 19:16	75-00-3	
Chloroform	ND	ug/kg	4.3	1.4	1		10/25/15 19:16	67-66-3	
Chloromethane	ND	ug/kg	8.5	2.0	1		10/25/15 19:16	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.3	3.1	1		10/25/15 19:16	96-12-8	
Dibromochloromethane	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	106-93-4	
Dibromomethane	ND	ug/kg	4.3	2.1	1		10/25/15 19:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.3	1.7	1		10/25/15 19:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.5	3.1	1		10/25/15 19:16	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.3	1.3	1		10/25/15 19:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.3	1.9	1		10/25/15 19:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.3	1.2	1		10/25/15 19:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.3	1.3	1		10/25/15 19:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.3	1.3	1		10/25/15 19:16	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	128	102	1		10/25/15 19:16	123-91-1	
Ethylbenzene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.3	1.7	1		10/25/15 19:16	87-68-3	
2-Hexanone	ND	ug/kg	42.7	3.3	1		10/25/15 19:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	99-87-6	
Methylene Chloride	**10.9J**	ug/kg	17.1	2.6	1		10/25/15 19:16	75-09-2	M1

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-48 (3-5) **Lab ID: 92272895021** Collected: 10/21/15 12:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	42.7	3.2	1		10/25/15 19:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.3	1.3	1		10/25/15 19:16	1634-04-4	
Naphthalene	ND	ug/kg	4.3	1.0	1		10/25/15 19:16	91-20-3	
n-Propylbenzene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	103-65-1	
Styrene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.3	1.8	1		10/25/15 19:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	79-34-5	
Tetrachloroethene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	127-18-4	
Toluene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.3	1.9	1		10/25/15 19:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.3	1.4	1		10/25/15 19:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.3	1.8	1		10/25/15 19:16	79-00-5	
Trichloroethene	ND	ug/kg	4.3	1.8	1		10/25/15 19:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.3	1.9	1		10/25/15 19:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.3	1.4	1		10/25/15 19:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.3	1.7	1		10/25/15 19:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.3	1.5	1		10/25/15 19:16	108-67-8	
Vinyl acetate	ND	ug/kg	42.7	7.5	1		10/25/15 19:16	108-05-4	
Vinyl chloride	ND	ug/kg	8.5	1.5	1		10/25/15 19:16	75-01-4	
Xylene (Total)	ND	ug/kg	8.5	3.1	1		10/25/15 19:16	1330-20-7	
m&p-Xylene	ND	ug/kg	8.5	3.1	1		10/25/15 19:16	179601-23-1	
o-Xylene	ND	ug/kg	4.3	1.6	1		10/25/15 19:16	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 19:16	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/25/15 19:16	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		10/25/15 19:16	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.3**	%	0.10	0.10	1		10/23/15 09:09		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (28-30) **Lab ID: 92272895022** Collected: 10/21/15 12:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	107	10.7	1		10/25/15 19:36	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/25/15 19:36	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.1	1		10/25/15 19:36	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/25/15 19:36	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		10/25/15 19:36	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1		10/25/15 19:36	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/25/15 19:36	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.1	1		10/25/15 19:36	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/25/15 19:36	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		10/25/15 19:36	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/25/15 19:36	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		10/25/15 19:36	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/25/15 19:36	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/25/15 19:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/25/15 19:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.9	1		10/25/15 19:36	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/25/15 19:36	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/25/15 19:36	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/25/15 19:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/25/15 19:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/25/15 19:36	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	161	128	1		10/25/15 19:36	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.1	1		10/25/15 19:36	87-68-3	
2-Hexanone	ND	ug/kg	53.5	4.2	1		10/25/15 19:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	99-87-6	
Methylene Chloride	**8.2J**	ug/kg	21.4	3.2	1		10/25/15 19:36	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (28-30) **Lab ID: 92272895022** Collected: 10/21/15 12:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.5	4.0	1		10/25/15 19:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/25/15 19:36	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/25/15 19:36	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.2	1		10/25/15 19:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/25/15 19:36	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/25/15 19:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/25/15 19:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.2	1		10/25/15 19:36	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.2	1		10/25/15 19:36	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/25/15 19:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/25/15 19:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.1	1		10/25/15 19:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		10/25/15 19:36	108-67-8	
Vinyl acetate	ND	ug/kg	53.5	9.4	1		10/25/15 19:36	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1		10/25/15 19:36	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.9	1		10/25/15 19:36	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.9	1		10/25/15 19:36	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.0	1		10/25/15 19:36	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 19:36	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/25/15 19:36	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-132		1		10/25/15 19:36	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.0**	%	0.10	0.10	1		10/23/15 09:09		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-47 (0-2) **Lab ID: 92272895023** Collected: 10/21/15 12:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**41.4J**	ug/kg	139	13.9	1		10/25/15 19:55	67-64-1	
Benzene	ND	ug/kg	7.0	2.2	1		10/25/15 19:55	71-43-2	
Bromobenzene	ND	ug/kg	7.0	2.8	1		10/25/15 19:55	108-86-1	
Bromochloromethane	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	74-97-5	
Bromodichloromethane	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	75-27-4	
Bromoform	ND	ug/kg	7.0	3.2	1		10/25/15 19:55	75-25-2	
Bromomethane	ND	ug/kg	13.9	3.5	1		10/25/15 19:55	74-83-9	
2-Butanone (MEK)	ND	ug/kg	139	4.0	1		10/25/15 19:55	78-93-3	
n-Butylbenzene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.0	2.2	1		10/25/15 19:55	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.0	2.8	1		10/25/15 19:55	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.0	3.6	1		10/25/15 19:55	56-23-5	
Chlorobenzene	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	108-90-7	
Chloroethane	ND	ug/kg	13.9	3.3	1		10/25/15 19:55	75-00-3	
Chloroform	ND	ug/kg	7.0	2.2	1		10/25/15 19:55	67-66-3	
Chloromethane	ND	ug/kg	13.9	3.3	1		10/25/15 19:55	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.0	5.0	1		10/25/15 19:55	96-12-8	
Dibromochloromethane	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	106-93-4	
Dibromomethane	ND	ug/kg	7.0	3.5	1		10/25/15 19:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.0	2.8	1		10/25/15 19:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.9	5.0	1		10/25/15 19:55	75-71-8	
1,1-Dichloroethane	**8.7**	ug/kg	7.0	2.1	1		10/25/15 19:55	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.0	3.1	1		10/25/15 19:55	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	75-35-4	
cis-1,2-Dichloroethene	**20.4**	ug/kg	7.0	2.0	1		10/25/15 19:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.0	2.1	1		10/25/15 19:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.0	2.1	1		10/25/15 19:55	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	209	167	1		10/25/15 19:55	123-91-1	
Ethylbenzene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.0	2.8	1		10/25/15 19:55	87-68-3	
2-Hexanone	ND	ug/kg	69.7	5.4	1		10/25/15 19:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	98-82-8	
p-Isopropyltoluene	**2.6J**	ug/kg	7.0	2.4	1		10/25/15 19:55	99-87-6	
Methylene Chloride	**13.2J**	ug/kg	27.9	4.2	1		10/25/15 19:55	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-47 (0-2) **Lab ID: 92272895023** Collected: 10/21/15 12:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	69.7	5.2	1		10/25/15 19:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.0	2.1	1		10/25/15 19:55	1634-04-4	
Naphthalene	**2.3J**	ug/kg	7.0	1.7	1		10/25/15 19:55	91-20-3	
n-Propylbenzene	ND	ug/kg	7.0	2.4	1		10/25/15 19:55	103-65-1	
Styrene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.0	2.9	1		10/25/15 19:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	79-34-5	
Tetrachloroethene	**7.6**	ug/kg	7.0	2.4	1		10/25/15 19:55	127-18-4	
Toluene	ND	ug/kg	7.0	2.5	1		10/25/15 19:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.0	3.1	1		10/25/15 19:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.0	2.2	1		10/25/15 19:55	120-82-1	
1,1,1-Trichloroethane	**7.7**	ug/kg	7.0	2.5	1		10/25/15 19:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.0	2.9	1		10/25/15 19:55	79-00-5	
Trichloroethene	ND	ug/kg	7.0	2.9	1		10/25/15 19:55	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.0	3.1	1		10/25/15 19:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.0	2.2	1		10/25/15 19:55	96-18-4	
1,2,4-Trimethylbenzene	**4.8J**	ug/kg	7.0	2.8	1		10/25/15 19:55	95-63-6	
1,3,5-Trimethylbenzene	**3.4J**	ug/kg	7.0	2.5	1		10/25/15 19:55	108-67-8	
Vinyl acetate	ND	ug/kg	69.7	12.3	1		10/25/15 19:55	108-05-4	
Vinyl chloride	ND	ug/kg	13.9	2.5	1		10/25/15 19:55	75-01-4	
Xylene (Total)	ND	ug/kg	13.9	5.0	1		10/25/15 19:55	1330-20-7	
m&p-Xylene	ND	ug/kg	13.9	5.0	1		10/25/15 19:55	179601-23-1	
o-Xylene	ND	ug/kg	7.0	2.6	1		10/25/15 19:55	95-47-6	
Surrogates									
Toluene-d8 (S)	94	%	70-130		1		10/25/15 19:55	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/25/15 19:55	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-132		1		10/25/15 19:55	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**2.6**	%	0.10	0.10	1		10/23/15 09:09		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (23-25) **Lab ID: 92272895024** Collected: 10/21/15 12:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**54.7J**	ug/kg	89.0	8.9	1		10/26/15 13:06	67-64-1	
Benzene	ND	ug/kg	4.4	1.4	1		10/26/15 13:06	71-43-2	
Bromobenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:06	108-86-1	
Bromochloromethane	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	74-97-5	
Bromodichloromethane	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	75-27-4	
Bromoform	ND	ug/kg	4.4	2.0	1		10/26/15 13:06	75-25-2	
Bromomethane	ND	ug/kg	8.9	2.2	1		10/26/15 13:06	74-83-9	
2-Butanone (MEK)	ND	ug/kg	89.0	2.6	1		10/26/15 13:06	78-93-3	
n-Butylbenzene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.4	1.4	1		10/26/15 13:06	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:06	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.4	2.3	1		10/26/15 13:06	56-23-5	
Chlorobenzene	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	108-90-7	
Chloroethane	ND	ug/kg	8.9	2.1	1		10/26/15 13:06	75-00-3	
Chloroform	ND	ug/kg	4.4	1.4	1		10/26/15 13:06	67-66-3	
Chloromethane	ND	ug/kg	8.9	2.1	1		10/26/15 13:06	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.4	3.2	1		10/26/15 13:06	96-12-8	
Dibromochloromethane	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	106-93-4	
Dibromomethane	ND	ug/kg	4.4	2.2	1		10/26/15 13:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.9	3.2	1		10/26/15 13:06	75-71-8	
1,1-Dichloroethane	**47.9**	ug/kg	4.4	1.3	1		10/26/15 13:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.4	2.0	1		10/26/15 13:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	75-35-4	
cis-1,2-Dichloroethene	**12.3**	ug/kg	4.4	1.2	1		10/26/15 13:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.4	1.3	1		10/26/15 13:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.4	1.3	1		10/26/15 13:06	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	133	107	1		10/26/15 13:06	123-91-1	
Ethylbenzene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.4	1.8	1		10/26/15 13:06	87-68-3	
2-Hexanone	ND	ug/kg	44.5	3.5	1		10/26/15 13:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	98-82-8	
p-Isopropyltoluene	**4.2J**	ug/kg	4.4	1.5	1		10/26/15 13:06	99-87-6	
Methylene Chloride	ND	ug/kg	17.8	2.7	1		10/26/15 13:06	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (23-25) **Lab ID: 92272895024** Collected: 10/21/15 12:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	44.5	3.3	1		10/26/15 13:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.4	1.3	1		10/26/15 13:06	1634-04-4	
Naphthalene	**2.1J**	ug/kg	4.4	1.1	1		10/26/15 13:06	91-20-3	B
n-Propylbenzene	ND	ug/kg	4.4	1.5	1		10/26/15 13:06	103-65-1	
Styrene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.4	1.9	1		10/26/15 13:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.4	1.7	1		10/26/15 13:06	79-34-5	
Tetrachloroethene	**2.3J**	ug/kg	4.4	1.5	1		10/26/15 13:06	127-18-4	
Toluene	**1.9J**	ug/kg	4.4	1.6	1		10/26/15 13:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.4	2.0	1		10/26/15 13:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.4	1.4	1		10/26/15 13:06	120-82-1	
1,1,1-Trichloroethane	**57.2**	ug/kg	4.4	1.6	1		10/26/15 13:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.4	1.9	1		10/26/15 13:06	79-00-5	
Trichloroethene	ND	ug/kg	4.4	1.9	1		10/26/15 13:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.4	2.0	1		10/26/15 13:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.4	1.4	1		10/26/15 13:06	96-18-4	
1,2,4-Trimethylbenzene	**2.2J**	ug/kg	4.4	1.8	1		10/26/15 13:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.4	1.6	1		10/26/15 13:06	108-67-8	
Vinyl acetate	ND	ug/kg	44.5	7.8	1		10/26/15 13:06	108-05-4	
Vinyl chloride	**4.9J**	ug/kg	8.9	1.6	1		10/26/15 13:06	75-01-4	
Xylene (Total)	**19.2**	ug/kg	8.9	3.2	1		10/26/15 13:06	1330-20-7	
m&p-Xylene	ND	ug/kg	8.9	3.2	1		10/26/15 13:06	179601-23-1	
o-Xylene	**19.2**	ug/kg	4.4	1.7	1		10/26/15 13:06	95-47-6	
Surrogates									
Toluene-d8 (S)	91	%	70-130		1		10/26/15 13:06	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		1		10/26/15 13:06	460-00-4	
1,2-Dichloroethane-d4 (S)	132	%	70-132		1		10/26/15 13:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.4**	%	0.10	0.10	1		10/23/15 09:09		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-48 (0-2) **Lab ID: 92272895025** Collected: 10/21/15 12:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	98.1	9.8	1		10/25/15 20:35	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		10/25/15 20:35	71-43-2	
Bromobenzene	ND	ug/kg	4.9	2.0	1		10/25/15 20:35	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	75-27-4	
Bromoform	ND	ug/kg	4.9	2.3	1		10/25/15 20:35	75-25-2	
Bromomethane	ND	ug/kg	9.8	2.5	1		10/25/15 20:35	74-83-9	
2-Butanone (MEK)	ND	ug/kg	98.1	2.8	1		10/25/15 20:35	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		10/25/15 20:35	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	2.0	1		10/25/15 20:35	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.5	1		10/25/15 20:35	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	108-90-7	
Chloroethane	ND	ug/kg	9.8	2.4	1		10/25/15 20:35	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		10/25/15 20:35	67-66-3	
Chloromethane	ND	ug/kg	9.8	2.4	1		10/25/15 20:35	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1		10/25/15 20:35	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.5	1		10/25/15 20:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	2.0	1		10/25/15 20:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.8	3.5	1		10/25/15 20:35	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		10/25/15 20:35	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.2	1		10/25/15 20:35	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.9	1.4	1		10/25/15 20:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/25/15 20:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		10/25/15 20:35	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	147	118	1		10/25/15 20:35	123-91-1	
Ethylbenzene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	2.0	1		10/25/15 20:35	87-68-3	
2-Hexanone	ND	ug/kg	49.0	3.8	1		10/25/15 20:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	99-87-6	
Methylene Chloride	**6.8J**	ug/kg	19.6	2.9	1		10/25/15 20:35	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-48 (0-2) **Lab ID: 92272895025** Collected: 10/21/15 12:20 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.0	3.6	1		10/25/15 20:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		10/25/15 20:35	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		10/25/15 20:35	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		10/25/15 20:35	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.1	1		10/25/15 20:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	79-34-5	
Tetrachloroethene	**1.7J**	ug/kg	4.9	1.7	1		10/25/15 20:35	127-18-4	
Toluene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.2	1		10/25/15 20:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		10/25/15 20:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.1	1		10/25/15 20:35	79-00-5	
Trichloroethene	ND	ug/kg	4.9	2.1	1		10/25/15 20:35	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.2	1		10/25/15 20:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		10/25/15 20:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	2.0	1		10/25/15 20:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.8	1		10/25/15 20:35	108-67-8	
Vinyl acetate	ND	ug/kg	49.0	8.6	1		10/25/15 20:35	108-05-4	
Vinyl chloride	ND	ug/kg	9.8	1.8	1		10/25/15 20:35	75-01-4	
Xylene (Total)	ND	ug/kg	9.8	3.5	1		10/25/15 20:35	1330-20-7	
m&p-Xylene	ND	ug/kg	9.8	3.5	1		10/25/15 20:35	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.9	1		10/25/15 20:35	95-47-6	
Surrogates									
Toluene-d8 (S)	95	%	70-130		1		10/25/15 20:35	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/25/15 20:35	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		1		10/25/15 20:35	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**3.8**	%	0.10	0.10	1		10/23/15 09:09		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-46 (0-2) **Lab ID: 92272895026** Collected: 10/21/15 12:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**37.9J**	ug/kg	88.6	8.9	1		10/26/15 13:26	67-64-1	
Benzene	ND	ug/kg	4.4	1.4	1		10/26/15 13:26	71-43-2	
Bromobenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:26	108-86-1	
Bromochloromethane	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	74-97-5	
Bromodichloromethane	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	75-27-4	
Bromoform	ND	ug/kg	4.4	2.0	1		10/26/15 13:26	75-25-2	
Bromomethane	ND	ug/kg	8.9	2.2	1		10/26/15 13:26	74-83-9	
2-Butanone (MEK)	**11.8J**	ug/kg	88.6	2.6	1		10/26/15 13:26	78-93-3	
n-Butylbenzene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.4	1.4	1		10/26/15 13:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:26	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.4	2.3	1		10/26/15 13:26	56-23-5	
Chlorobenzene	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	108-90-7	
Chloroethane	ND	ug/kg	8.9	2.1	1		10/26/15 13:26	75-00-3	
Chloroform	ND	ug/kg	4.4	1.4	1		10/26/15 13:26	67-66-3	
Chloromethane	ND	ug/kg	8.9	2.1	1		10/26/15 13:26	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.4	3.2	1		10/26/15 13:26	96-12-8	
Dibromochloromethane	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	106-93-4	
Dibromomethane	ND	ug/kg	4.4	2.2	1		10/26/15 13:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	8.9	3.2	1		10/26/15 13:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.4	1.3	1		10/26/15 13:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.4	1.9	1		10/26/15 13:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.4	1.2	1		10/26/15 13:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.4	1.3	1		10/26/15 13:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.4	1.3	1		10/26/15 13:26	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	133	106	1		10/26/15 13:26	123-91-1	
Ethylbenzene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.4	1.8	1		10/26/15 13:26	87-68-3	
2-Hexanone	ND	ug/kg	44.3	3.5	1		10/26/15 13:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	99-87-6	
Methylene Chloride	ND	ug/kg	17.7	2.7	1		10/26/15 13:26	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-46 (0-2) **Lab ID: 92272895026** Collected: 10/21/15 12:15 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	44.3	3.3	1		10/26/15 13:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.4	1.3	1		10/26/15 13:26	1634-04-4	
Naphthalene	ND	ug/kg	4.4	1.1	1		10/26/15 13:26	91-20-3	
n-Propylbenzene	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	103-65-1	
Styrene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.4	1.9	1		10/26/15 13:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	79-34-5	
Tetrachloroethene	ND	ug/kg	4.4	1.5	1		10/26/15 13:26	127-18-4	
Toluene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.4	1.9	1		10/26/15 13:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.4	1.4	1		10/26/15 13:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.4	1.9	1		10/26/15 13:26	79-00-5	
Trichloroethene	ND	ug/kg	4.4	1.9	1		10/26/15 13:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.4	1.9	1		10/26/15 13:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.4	1.4	1		10/26/15 13:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.4	1.8	1		10/26/15 13:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.4	1.6	1		10/26/15 13:26	108-67-8	
Vinyl acetate	ND	ug/kg	44.3	7.8	1		10/26/15 13:26	108-05-4	
Vinyl chloride	ND	ug/kg	8.9	1.6	1		10/26/15 13:26	75-01-4	
Xylene (Total)	ND	ug/kg	8.9	3.2	1		10/26/15 13:26	1330-20-7	
m&p-Xylene	ND	ug/kg	8.9	3.2	1		10/26/15 13:26	179601-23-1	
o-Xylene	ND	ug/kg	4.4	1.7	1		10/26/15 13:26	95-47-6	
Surrogates									
Toluene-d8 (S)	97	%	70-130		1		10/26/15 13:26	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		10/26/15 13:26	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%	70-132		1		10/26/15 13:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**3.9**	%	0.10	0.10	1		10/23/15 09:10		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-47 (3-5) **Lab ID: 92272895027** Collected: 10/21/15 12:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**26.2J**	ug/kg	180	18.0	1		10/25/15 21:14	67-64-1	
Benzene	ND	ug/kg	9.0	2.9	1		10/25/15 21:14	71-43-2	
Bromobenzene	ND	ug/kg	9.0	3.6	1		10/25/15 21:14	108-86-1	
Bromochloromethane	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	74-97-5	
Bromodichloromethane	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	75-27-4	
Bromoform	ND	ug/kg	9.0	4.1	1		10/25/15 21:14	75-25-2	
Bromomethane	ND	ug/kg	18.0	4.5	1		10/25/15 21:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	180	5.2	1		10/25/15 21:14	78-93-3	
n-Butylbenzene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	9.0	2.9	1		10/25/15 21:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	9.0	3.6	1		10/25/15 21:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	9.0	4.7	1		10/25/15 21:14	56-23-5	
Chlorobenzene	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	108-90-7	
Chloroethane	ND	ug/kg	18.0	4.3	1		10/25/15 21:14	75-00-3	
Chloroform	ND	ug/kg	9.0	2.9	1		10/25/15 21:14	67-66-3	
Chloromethane	ND	ug/kg	18.0	4.3	1		10/25/15 21:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	9.0	6.5	1		10/25/15 21:14	96-12-8	
Dibromochloromethane	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	106-93-4	
Dibromomethane	ND	ug/kg	9.0	4.5	1		10/25/15 21:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	9.0	3.6	1		10/25/15 21:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	18.0	6.5	1		10/25/15 21:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	9.0	2.7	1		10/25/15 21:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	9.0	4.0	1		10/25/15 21:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	9.0	2.5	1		10/25/15 21:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	9.0	2.7	1		10/25/15 21:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	9.0	2.7	1		10/25/15 21:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	270	216	1		10/25/15 21:14	123-91-1	
Ethylbenzene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	9.0	3.6	1		10/25/15 21:14	87-68-3	
2-Hexanone	ND	ug/kg	90.0	7.0	1		10/25/15 21:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	99-87-6	
Methylene Chloride	**21.3J**	ug/kg	36.0	5.4	1		10/25/15 21:14	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-47 (3-5) **Lab ID: 92272895027** Collected: 10/21/15 12:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	90.0	6.7	1		10/25/15 21:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	9.0	2.7	1		10/25/15 21:14	1634-04-4	
Naphthalene	ND	ug/kg	9.0	2.2	1		10/25/15 21:14	91-20-3	
n-Propylbenzene	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	103-65-1	
Styrene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	9.0	3.8	1		10/25/15 21:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	79-34-5	
Tetrachloroethene	ND	ug/kg	9.0	3.1	1		10/25/15 21:14	127-18-4	
Toluene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	9.0	4.0	1		10/25/15 21:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	9.0	2.9	1		10/25/15 21:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	9.0	3.8	1		10/25/15 21:14	79-00-5	
Trichloroethene	ND	ug/kg	9.0	3.8	1		10/25/15 21:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	9.0	4.0	1		10/25/15 21:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	9.0	2.9	1		10/25/15 21:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	9.0	3.6	1		10/25/15 21:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	9.0	3.2	1		10/25/15 21:14	108-67-8	
Vinyl acetate	ND	ug/kg	90.0	15.8	1		10/25/15 21:14	108-05-4	
Vinyl chloride	ND	ug/kg	18.0	3.2	1		10/25/15 21:14	75-01-4	
Xylene (Total)	ND	ug/kg	18.0	6.5	1		10/25/15 21:14	1330-20-7	
m&p-Xylene	ND	ug/kg	18.0	6.5	1		10/25/15 21:14	179601-23-1	
o-Xylene	ND	ug/kg	9.0	3.4	1		10/25/15 21:14	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 21:14	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/25/15 21:14	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-132		1		10/25/15 21:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.7**	%	0.10	0.10	1		10/23/15 09:10		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (18-20) **Lab ID: 92272895028** Collected: 10/21/15 12:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	106	10.6	1		10/25/15 21:34	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1		10/25/15 21:34	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		10/25/15 21:34	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	75-27-4	
Bromoform	ND	ug/kg	5.3	2.4	1		10/25/15 21:34	75-25-2	
Bromomethane	ND	ug/kg	10.6	2.6	1		10/25/15 21:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	106	3.1	1		10/25/15 21:34	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		10/25/15 21:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		10/25/15 21:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1		10/25/15 21:34	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	108-90-7	
Chloroethane	ND	ug/kg	10.6	2.5	1		10/25/15 21:34	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		10/25/15 21:34	67-66-3	
Chloromethane	ND	ug/kg	10.6	2.5	1		10/25/15 21:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		10/25/15 21:34	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.6	1		10/25/15 21:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		10/25/15 21:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.6	3.8	1		10/25/15 21:34	75-71-8	
1,1-Dichloroethane	**8.0**	ug/kg	5.3	1.6	1		10/25/15 21:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.3	1		10/25/15 21:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	75-35-4	
cis-1,2-Dichloroethene	**4.6J**	ug/kg	5.3	1.5	1		10/25/15 21:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/25/15 21:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/25/15 21:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	159	127	1		10/25/15 21:34	123-91-1	
Ethylbenzene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		10/25/15 21:34	87-68-3	
2-Hexanone	ND	ug/kg	52.9	4.1	1		10/25/15 21:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	99-87-6	
Methylene Chloride	**7.8J**	ug/kg	21.2	3.2	1		10/25/15 21:34	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (18-20) **Lab ID: 92272895028** Collected: 10/21/15 12:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.9	3.9	1		10/25/15 21:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		10/25/15 21:34	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		10/25/15 21:34	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		10/25/15 21:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1		10/25/15 21:34	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.3	1		10/25/15 21:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		10/25/15 21:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		10/25/15 21:34	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1		10/25/15 21:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.3	1		10/25/15 21:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		10/25/15 21:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		10/25/15 21:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		10/25/15 21:34	108-67-8	
Vinyl acetate	ND	ug/kg	52.9	9.3	1		10/25/15 21:34	108-05-4	
Vinyl chloride	ND	ug/kg	10.6	1.9	1		10/25/15 21:34	75-01-4	
Xylene (Total)	ND	ug/kg	10.6	3.8	1		10/25/15 21:34	1330-20-7	
m&p-Xylene	ND	ug/kg	10.6	3.8	1		10/25/15 21:34	179601-23-1	
o-Xylene	ND	ug/kg	5.3	2.0	1		10/25/15 21:34	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/25/15 21:34	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/15 21:34	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-132		1		10/25/15 21:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.7**	%	0.10	0.10	1		10/23/15 09:10		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-43 (0-2) **Lab ID: 92272895029** Collected: 10/21/15 12:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	93.7	9.4	1		10/25/15 21:54	67-64-1	
Benzene	ND	ug/kg	4.7	1.5	1		10/25/15 21:54	71-43-2	
Bromobenzene	ND	ug/kg	4.7	1.9	1		10/25/15 21:54	108-86-1	
Bromochloromethane	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	74-97-5	
Bromodichloromethane	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	75-27-4	
Bromoform	ND	ug/kg	4.7	2.2	1		10/25/15 21:54	75-25-2	
Bromomethane	ND	ug/kg	9.4	2.3	1		10/25/15 21:54	74-83-9	
2-Butanone (MEK)	ND	ug/kg	93.7	2.7	1		10/25/15 21:54	78-93-3	
n-Butylbenzene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.7	1.5	1		10/25/15 21:54	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.7	1.9	1		10/25/15 21:54	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.7	2.4	1		10/25/15 21:54	56-23-5	
Chlorobenzene	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	108-90-7	
Chloroethane	ND	ug/kg	9.4	2.2	1		10/25/15 21:54	75-00-3	
Chloroform	ND	ug/kg	4.7	1.5	1		10/25/15 21:54	67-66-3	
Chloromethane	ND	ug/kg	9.4	2.2	1		10/25/15 21:54	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.7	3.4	1		10/25/15 21:54	96-12-8	
Dibromochloromethane	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	106-93-4	
Dibromomethane	ND	ug/kg	4.7	2.3	1		10/25/15 21:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.7	1.9	1		10/25/15 21:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.4	3.4	1		10/25/15 21:54	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.7	1.4	1		10/25/15 21:54	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.7	2.1	1		10/25/15 21:54	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.7	1.3	1		10/25/15 21:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.7	1.4	1		10/25/15 21:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.7	1.4	1		10/25/15 21:54	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	141	112	1		10/25/15 21:54	123-91-1	
Ethylbenzene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.7	1.9	1		10/25/15 21:54	87-68-3	
2-Hexanone	ND	ug/kg	46.8	3.7	1		10/25/15 21:54	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	99-87-6	
Methylene Chloride	**6.0J**	ug/kg	18.7	2.8	1		10/25/15 21:54	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-43 (0-2) **Lab ID: 92272895029** Collected: 10/21/15 12:25 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	46.8	3.5	1		10/25/15 21:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.7	1.4	1		10/25/15 21:54	1634-04-4	
Naphthalene	ND	ug/kg	4.7	1.1	1		10/25/15 21:54	91-20-3	
n-Propylbenzene	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	103-65-1	
Styrene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.7	2.0	1		10/25/15 21:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	79-34-5	
Tetrachloroethene	ND	ug/kg	4.7	1.6	1		10/25/15 21:54	127-18-4	
Toluene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.7	2.1	1		10/25/15 21:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.7	1.5	1		10/25/15 21:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.7	2.0	1		10/25/15 21:54	79-00-5	
Trichloroethene	ND	ug/kg	4.7	2.0	1		10/25/15 21:54	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.7	2.1	1		10/25/15 21:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.7	1.5	1		10/25/15 21:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.7	1.9	1		10/25/15 21:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.7	1.7	1		10/25/15 21:54	108-67-8	
Vinyl acetate	ND	ug/kg	46.8	8.2	1		10/25/15 21:54	108-05-4	
Vinyl chloride	ND	ug/kg	9.4	1.7	1		10/25/15 21:54	75-01-4	
Xylene (Total)	ND	ug/kg	9.4	3.4	1		10/25/15 21:54	1330-20-7	
m&p-Xylene	ND	ug/kg	9.4	3.4	1		10/25/15 21:54	179601-23-1	
o-Xylene	ND	ug/kg	4.7	1.8	1		10/25/15 21:54	95-47-6	
Surrogates									
Toluene-d8 (S)	96	%	70-130		1		10/25/15 21:54	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/25/15 21:54	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		1		10/25/15 21:54	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.5**	%	0.10	0.10	1		10/23/15 09:10		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (0-2) **Lab ID: 92272895030** Collected: 10/21/15 12:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	111	11.1	1		10/25/15 22:14	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		10/25/15 22:14	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/25/15 22:14	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/25/15 22:14	75-25-2	
Bromomethane	ND	ug/kg	11.1	2.8	1		10/25/15 22:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	111	3.2	1		10/25/15 22:14	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		10/25/15 22:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/25/15 22:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		10/25/15 22:14	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	108-90-7	
Chloroethane	ND	ug/kg	11.1	2.7	1		10/25/15 22:14	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		10/25/15 22:14	67-66-3	
Chloromethane	ND	ug/kg	11.1	2.7	1		10/25/15 22:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		10/25/15 22:14	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.8	1		10/25/15 22:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/25/15 22:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.1	4.0	1		10/25/15 22:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.7	1		10/25/15 22:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/25/15 22:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1.5	1		10/25/15 22:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.7	1		10/25/15 22:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.7	1		10/25/15 22:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	166	133	1		10/25/15 22:14	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/25/15 22:14	87-68-3	
2-Hexanone	ND	ug/kg	55.3	4.3	1		10/25/15 22:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	99-87-6	
Methylene Chloride	**12.1J**	ug/kg	22.1	3.3	1		10/25/15 22:14	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (0-2) **Lab ID: 92272895030** Collected: 10/21/15 12:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.3	4.1	1		10/25/15 22:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.7	1		10/25/15 22:14	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/25/15 22:14	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/25/15 22:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	79-34-5	
Tetrachloroethene	ND	ug/kg	5.5	1.9	1		10/25/15 22:14	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/25/15 22:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		10/25/15 22:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/25/15 22:14	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		10/25/15 22:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/25/15 22:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		10/25/15 22:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/25/15 22:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/25/15 22:14	108-67-8	
Vinyl acetate	ND	ug/kg	55.3	9.7	1		10/25/15 22:14	108-05-4	
Vinyl chloride	ND	ug/kg	11.1	2.0	1		10/25/15 22:14	75-01-4	
Xylene (Total)	ND	ug/kg	11.1	4.0	1		10/25/15 22:14	1330-20-7	
m&p-Xylene	ND	ug/kg	11.1	4.0	1		10/25/15 22:14	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/25/15 22:14	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 22:14	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		10/25/15 22:14	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/25/15 22:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.0**	%	0.10	0.10	1		10/23/15 09:10		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (28-30) **Lab ID: 92272895031** Collected: 10/21/15 12:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.5J**	ug/kg	116	11.6	1		10/25/15 22:34	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		10/25/15 22:34	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		10/25/15 22:34	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		10/25/15 22:34	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		10/25/15 22:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		10/25/15 22:34	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		10/25/15 22:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		10/25/15 22:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		10/25/15 22:34	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		10/25/15 22:34	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		10/25/15 22:34	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		10/25/15 22:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		10/25/15 22:34	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		10/25/15 22:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		10/25/15 22:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		10/25/15 22:34	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		10/25/15 22:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.5	1		10/25/15 22:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		10/25/15 22:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/25/15 22:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		10/25/15 22:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	174	139	1		10/25/15 22:34	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		10/25/15 22:34	87-68-3	
2-Hexanone	ND	ug/kg	57.9	4.5	1		10/25/15 22:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	99-87-6	
Methylene Chloride	**10.1J**	ug/kg	23.1	3.5	1		10/25/15 22:34	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (28-30) **Lab ID: 92272895031** Collected: 10/21/15 12:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.9	4.3	1		10/25/15 22:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		10/25/15 22:34	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		10/25/15 22:34	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		10/25/15 22:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		10/25/15 22:34	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.5	1		10/25/15 22:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		10/25/15 22:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		10/25/15 22:34	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		10/25/15 22:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.5	1		10/25/15 22:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		10/25/15 22:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		10/25/15 22:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		10/25/15 22:34	108-67-8	
Vinyl acetate	ND	ug/kg	57.9	10.2	1		10/25/15 22:34	108-05-4	
Vinyl chloride	ND	ug/kg	11.6	2.1	1		10/25/15 22:34	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		10/25/15 22:34	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		10/25/15 22:34	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		10/25/15 22:34	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/25/15 22:34	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/25/15 22:34	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/25/15 22:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.4**	%	0.10	0.10	1		10/23/15 09:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-43 (3-5) **Lab ID: 92272895032** Collected: 10/21/15 12:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**48.6J**	ug/kg	107	10.7	1		10/25/15 22:54	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		10/25/15 22:54	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.1	1		10/25/15 22:54	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	74-97-5	L3
Bromodichloromethane	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		10/25/15 22:54	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		10/25/15 22:54	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1		10/25/15 22:54	78-93-3	L3
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		10/25/15 22:54	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.1	1		10/25/15 22:54	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		10/25/15 22:54	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		10/25/15 22:54	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		10/25/15 22:54	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		10/25/15 22:54	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		10/25/15 22:54	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		10/25/15 22:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		10/25/15 22:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.9	1		10/25/15 22:54	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		10/25/15 22:54	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		10/25/15 22:54	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		10/25/15 22:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/25/15 22:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		10/25/15 22:54	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	161	128	1		10/25/15 22:54	123-91-1	
Ethylbenzene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.1	1		10/25/15 22:54	87-68-3	
2-Hexanone	ND	ug/kg	53.5	4.2	1		10/25/15 22:54	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	99-87-6	
Methylene Chloride	**10.7J**	ug/kg	21.4	3.2	1		10/25/15 22:54	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-43 (3-5) **Lab ID: 92272895032** Collected: 10/21/15 12:30 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.5	4.0	1		10/25/15 22:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		10/25/15 22:54	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		10/25/15 22:54	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.2	1		10/25/15 22:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		10/25/15 22:54	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		10/25/15 22:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		10/25/15 22:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.2	1		10/25/15 22:54	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.2	1		10/25/15 22:54	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		10/25/15 22:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		10/25/15 22:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.1	1		10/25/15 22:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		10/25/15 22:54	108-67-8	
Vinyl acetate	ND	ug/kg	53.5	9.4	1		10/25/15 22:54	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1		10/25/15 22:54	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.9	1		10/25/15 22:54	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.9	1		10/25/15 22:54	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.0	1		10/25/15 22:54	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/25/15 22:54	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/15 22:54	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/25/15 22:54	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.9**	%	0.10	0.10	1		10/23/15 09:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-42 (3-5) **Lab ID: 92272895033** Collected: 10/21/15 12:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**20.8J**	ug/kg	131	13.1	1		10/25/15 23:13	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		10/25/15 23:13	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		10/25/15 23:13	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	74-97-5	L3
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		10/25/15 23:13	75-25-2	
Bromomethane	ND	ug/kg	13.1	3.3	1		10/25/15 23:13	74-83-9	
2-Butanone (MEK)	ND	ug/kg	131	3.8	1		10/25/15 23:13	78-93-3	L3
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		10/25/15 23:13	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		10/25/15 23:13	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		10/25/15 23:13	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	108-90-7	
Chloroethane	ND	ug/kg	13.1	3.1	1		10/25/15 23:13	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		10/25/15 23:13	67-66-3	
Chloromethane	ND	ug/kg	13.1	3.1	1		10/25/15 23:13	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.7	1		10/25/15 23:13	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		10/25/15 23:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		10/25/15 23:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.1	4.7	1		10/25/15 23:13	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		10/25/15 23:13	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		10/25/15 23:13	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.8	1		10/25/15 23:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/25/15 23:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		10/25/15 23:13	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	197	157	1		10/25/15 23:13	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		10/25/15 23:13	87-68-3	
2-Hexanone	ND	ug/kg	65.6	5.1	1		10/25/15 23:13	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	99-87-6	
Methylene Chloride	**18.0J**	ug/kg	26.2	3.9	1		10/25/15 23:13	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-42 (3-5) **Lab ID: 92272895033** Collected: 10/21/15 12:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.6	4.9	1		10/25/15 23:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		10/25/15 23:13	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		10/25/15 23:13	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		10/25/15 23:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		10/25/15 23:13	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		10/25/15 23:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		10/25/15 23:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		10/25/15 23:13	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		10/25/15 23:13	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		10/25/15 23:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		10/25/15 23:13	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		10/25/15 23:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		10/25/15 23:13	108-67-8	
Vinyl acetate	ND	ug/kg	65.6	11.5	1		10/25/15 23:13	108-05-4	
Vinyl chloride	ND	ug/kg	13.1	2.4	1		10/25/15 23:13	75-01-4	
Xylene (Total)	ND	ug/kg	13.1	4.7	1		10/25/15 23:13	1330-20-7	
m&p-Xylene	ND	ug/kg	13.1	4.7	1		10/25/15 23:13	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		10/25/15 23:13	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/25/15 23:13	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		10/25/15 23:13	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/25/15 23:13	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.1**	%	0.10	0.10	1		10/23/15 09:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (18-20) **Lab ID: 92272895034** Collected: 10/21/15 12:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**56.8J**	ug/kg	143	14.3	1		10/25/15 23:33	67-64-1	
Benzene	ND	ug/kg	7.1	2.3	1		10/25/15 23:33	71-43-2	
Bromobenzene	ND	ug/kg	7.1	2.9	1		10/25/15 23:33	108-86-1	
Bromochloromethane	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	74-97-5	L3
Bromodichloromethane	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	75-27-4	
Bromoform	ND	ug/kg	7.1	3.3	1		10/25/15 23:33	75-25-2	
Bromomethane	ND	ug/kg	14.3	3.6	1		10/25/15 23:33	74-83-9	
2-Butanone (MEK)	ND	ug/kg	143	4.1	1		10/25/15 23:33	78-93-3	L3
n-Butylbenzene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.1	2.3	1		10/25/15 23:33	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.1	2.9	1		10/25/15 23:33	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.1	3.7	1		10/25/15 23:33	56-23-5	
Chlorobenzene	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	108-90-7	
Chloroethane	ND	ug/kg	14.3	3.4	1		10/25/15 23:33	75-00-3	
Chloroform	ND	ug/kg	7.1	2.3	1		10/25/15 23:33	67-66-3	
Chloromethane	ND	ug/kg	14.3	3.4	1		10/25/15 23:33	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.1	5.1	1		10/25/15 23:33	96-12-8	
Dibromochloromethane	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	106-93-4	
Dibromomethane	ND	ug/kg	7.1	3.6	1		10/25/15 23:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.1	2.9	1		10/25/15 23:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	14.3	5.1	1		10/25/15 23:33	75-71-8	
1,1-Dichloroethane	ND	ug/kg	7.1	2.1	1		10/25/15 23:33	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.1	3.1	1		10/25/15 23:33	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	75-35-4	
cis-1,2-Dichloroethene	**15.0**	ug/kg	7.1	2.0	1		10/25/15 23:33	156-59-2	D6
trans-1,2-Dichloroethene	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	7.1	2.1	1		10/25/15 23:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.1	2.1	1		10/25/15 23:33	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	214	171	1		10/25/15 23:33	123-91-1	
Ethylbenzene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.1	2.9	1		10/25/15 23:33	87-68-3	
2-Hexanone	ND	ug/kg	71.4	5.6	1		10/25/15 23:33	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	99-87-6	
Methylene Chloride	**31.0**	ug/kg	28.6	4.3	1		10/25/15 23:33	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (18-20) **Lab ID: 92272895034** Collected: 10/21/15 12:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	71.4	5.3	1		10/25/15 23:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.1	2.1	1		10/25/15 23:33	1634-04-4	
Naphthalene	ND	ug/kg	7.1	1.7	1		10/25/15 23:33	91-20-3	
n-Propylbenzene	ND	ug/kg	7.1	2.4	1		10/25/15 23:33	103-65-1	
Styrene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.1	3.0	1		10/25/15 23:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	79-34-5	
Tetrachloroethene	**31.6**	ug/kg	7.1	2.4	1		10/25/15 23:33	127-18-4	D6
Toluene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.1	3.1	1		10/25/15 23:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.1	2.3	1		10/25/15 23:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.1	3.0	1		10/25/15 23:33	79-00-5	
Trichloroethene	**7.6**	ug/kg	7.1	3.0	1		10/25/15 23:33	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.1	3.1	1		10/25/15 23:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.1	2.3	1		10/25/15 23:33	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.1	2.9	1		10/25/15 23:33	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.1	2.6	1		10/25/15 23:33	108-67-8	
Vinyl acetate	ND	ug/kg	71.4	12.6	1		10/25/15 23:33	108-05-4	
Vinyl chloride	ND	ug/kg	14.3	2.6	1		10/25/15 23:33	75-01-4	
Xylene (Total)	ND	ug/kg	14.3	5.1	1		10/25/15 23:33	1330-20-7	
m&p-Xylene	ND	ug/kg	14.3	5.1	1		10/25/15 23:33	179601-23-1	
o-Xylene	ND	ug/kg	7.1	2.7	1		10/25/15 23:33	95-47-6	
Surrogates									
Toluene-d8 (S)	95	%	70-130		1		10/25/15 23:33	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/25/15 23:33	460-00-4	
1,2-Dichloroethane-d4 (S)	137	%	70-132		1		10/25/15 23:33	17060-07-0	S1
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.7**	%	0.10	0.10	1		10/23/15 09:23		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: TRIP BLANK 08 **Lab ID: 92272895035** Collected: 10/21/15 12:45 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		10/25/15 23:53	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		10/25/15 23:53	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		10/25/15 23:53	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	74-97-5	L3
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		10/25/15 23:53	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		10/25/15 23:53	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		10/25/15 23:53	78-93-3	L3
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		10/25/15 23:53	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		10/25/15 23:53	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		10/25/15 23:53	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		10/25/15 23:53	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		10/25/15 23:53	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		10/25/15 23:53	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		10/25/15 23:53	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		10/25/15 23:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		10/25/15 23:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		10/25/15 23:53	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		10/25/15 23:53	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		10/25/15 23:53	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		10/25/15 23:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/25/15 23:53	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		10/25/15 23:53	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		10/25/15 23:53	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		10/25/15 23:53	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		10/25/15 23:53	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	99-87-6	
Methylene Chloride	**7.7J**	ug/kg	20.0	3.0	1		10/25/15 23:53	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: TRIP BLANK 08 **Lab ID: 92272895035** Collected: 10/21/15 12:45 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		10/25/15 23:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		10/25/15 23:53	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		10/25/15 23:53	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		10/25/15 23:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		10/25/15 23:53	127-18-4	
Toluene	**3.3J**	ug/kg	5.0	1.8	1		10/25/15 23:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		10/25/15 23:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		10/25/15 23:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		10/25/15 23:53	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		10/25/15 23:53	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		10/25/15 23:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		10/25/15 23:53	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		10/25/15 23:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		10/25/15 23:53	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		10/25/15 23:53	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		10/25/15 23:53	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		10/25/15 23:53	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		10/25/15 23:53	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		10/25/15 23:53	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/25/15 23:53	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/25/15 23:53	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		10/25/15 23:53	17060-07-0	

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (23-25) **Lab ID: 92272895036** Collected: 10/21/15 12:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**14.8J**	ug/kg	107	10.7	1		10/26/15 00:13	67-64-1	M1
Benzene	ND	ug/kg	5.3	1.7	1		10/26/15 00:13	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		10/26/15 00:13	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	74-97-5	L3
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	75-27-4	
Bromoform	ND	ug/kg	5.3	2.5	1		10/26/15 00:13	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		10/26/15 00:13	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1		10/26/15 00:13	78-93-3	L3,M0
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		10/26/15 00:13	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		10/26/15 00:13	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1		10/26/15 00:13	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		10/26/15 00:13	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		10/26/15 00:13	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		10/26/15 00:13	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		10/26/15 00:13	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.7	1		10/26/15 00:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		10/26/15 00:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.8	1		10/26/15 00:13	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1.6	1		10/26/15 00:13	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.3	1		10/26/15 00:13	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.3	1.5	1		10/26/15 00:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/26/15 00:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/26/15 00:13	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	160	128	1		10/26/15 00:13	123-91-1	
Ethylbenzene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		10/26/15 00:13	87-68-3	M1
2-Hexanone	ND	ug/kg	53.4	4.2	1		10/26/15 00:13	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	99-87-6	
Methylene Chloride	**16.6J**	ug/kg	21.4	3.2	1		10/26/15 00:13	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (23-25) **Lab ID: 92272895036** Collected: 10/21/15 12:35 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.4	4.0	1		10/26/15 00:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		10/26/15 00:13	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		10/26/15 00:13	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		10/26/15 00:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1		10/26/15 00:13	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.3	1		10/26/15 00:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		10/26/15 00:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		10/26/15 00:13	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1		10/26/15 00:13	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.3	1		10/26/15 00:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		10/26/15 00:13	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		10/26/15 00:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		10/26/15 00:13	108-67-8	
Vinyl acetate	ND	ug/kg	53.4	9.4	1		10/26/15 00:13	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1		10/26/15 00:13	75-01-4	
Xylene (Total)	ND	ug/kg	10.7	3.8	1		10/26/15 00:13	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	3.8	1		10/26/15 00:13	179601-23-1	
o-Xylene	ND	ug/kg	5.3	2.0	1		10/26/15 00:13	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/26/15 00:13	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/26/15 00:13	460-00-4	
1,2-Dichloroethane-d4 (S)	126	%	70-132		1		10/26/15 00:13	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.6**	%	0.10	0.10	1		10/23/15 09:24		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (3-5) **Lab ID: 92272895037** Collected: 10/21/15 12:45 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	113	11.3	1		10/26/15 00:32	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		10/26/15 00:32	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		10/26/15 00:32	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	74-97-5	L3
Bromodichloromethane	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		10/26/15 00:32	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		10/26/15 00:32	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		10/26/15 00:32	78-93-3	L3
n-Butylbenzene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		10/26/15 00:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		10/26/15 00:32	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	2.9	1		10/26/15 00:32	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		10/26/15 00:32	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		10/26/15 00:32	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		10/26/15 00:32	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		10/26/15 00:32	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.8	1		10/26/15 00:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		10/26/15 00:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		10/26/15 00:32	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		10/26/15 00:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		10/26/15 00:32	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		10/26/15 00:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		10/26/15 00:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		10/26/15 00:32	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	170	136	1		10/26/15 00:32	123-91-1	
Ethylbenzene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		10/26/15 00:32	87-68-3	
2-Hexanone	ND	ug/kg	56.6	4.4	1		10/26/15 00:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	99-87-6	
Methylene Chloride	**6.4J**	ug/kg	22.6	3.4	1		10/26/15 00:32	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-38 (3-5) **Lab ID: 92272895037** Collected: 10/21/15 12:45 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.6	4.2	1		10/26/15 00:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		10/26/15 00:32	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		10/26/15 00:32	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	103-65-1	
Styrene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		10/26/15 00:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1.9	1		10/26/15 00:32	127-18-4	
Toluene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		10/26/15 00:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		10/26/15 00:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		10/26/15 00:32	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		10/26/15 00:32	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		10/26/15 00:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		10/26/15 00:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		10/26/15 00:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.0	1		10/26/15 00:32	108-67-8	
Vinyl acetate	ND	ug/kg	56.6	10	1		10/26/15 00:32	108-05-4	
Vinyl chloride	ND	ug/kg	11.3	2.0	1		10/26/15 00:32	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		10/26/15 00:32	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		10/26/15 00:32	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.2	1		10/26/15 00:32	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/26/15 00:32	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		10/26/15 00:32	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-132		1		10/26/15 00:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.3**	%	0.10	0.10	1		10/23/15 09:24		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-45 (0-2) **Lab ID: 92272895038** Collected: 10/21/15 12:50 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	122	12.2	1		10/26/15 00:52	67-64-1	
Benzene	ND	ug/kg	6.1	1.9	1		10/26/15 00:52	71-43-2	
Bromobenzene	ND	ug/kg	6.1	2.4	1		10/26/15 00:52	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	74-97-5	L3
Bromodichloromethane	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	75-27-4	
Bromoform	ND	ug/kg	6.1	2.8	1		10/26/15 00:52	75-25-2	
Bromomethane	ND	ug/kg	12.2	3.0	1		10/26/15 00:52	74-83-9	
2-Butanone (MEK)	ND	ug/kg	122	3.5	1		10/26/15 00:52	78-93-3	L3
n-Butylbenzene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	1.9	1		10/26/15 00:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	2.4	1		10/26/15 00:52	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	3.2	1		10/26/15 00:52	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	108-90-7	
Chloroethane	ND	ug/kg	12.2	2.9	1		10/26/15 00:52	75-00-3	
Chloroform	ND	ug/kg	6.1	1.9	1		10/26/15 00:52	67-66-3	
Chloromethane	ND	ug/kg	12.2	2.9	1		10/26/15 00:52	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	4.4	1		10/26/15 00:52	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	106-93-4	
Dibromomethane	ND	ug/kg	6.1	3.0	1		10/26/15 00:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	2.4	1		10/26/15 00:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.2	4.4	1		10/26/15 00:52	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.1	1.8	1		10/26/15 00:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	2.7	1		10/26/15 00:52	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.1	1.7	1		10/26/15 00:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	6.1	1.8	1		10/26/15 00:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1.8	1		10/26/15 00:52	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	182	146	1		10/26/15 00:52	123-91-1	
Ethylbenzene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	2.4	1		10/26/15 00:52	87-68-3	
2-Hexanone	ND	ug/kg	60.8	4.7	1		10/26/15 00:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	99-87-6	
Methylene Chloride	**13.8J**	ug/kg	24.3	3.6	1		10/26/15 00:52	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-45 (0-2) **Lab ID: 92272895038** Collected: 10/21/15 12:50 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.8	4.5	1		10/26/15 00:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.8	1		10/26/15 00:52	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1.5	1		10/26/15 00:52	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	2.1	1		10/26/15 00:52	103-65-1	
Styrene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	2.6	1		10/26/15 00:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	79-34-5	
Tetrachloroethene	**8.6**	ug/kg	6.1	2.1	1		10/26/15 00:52	127-18-4	
Toluene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	2.7	1		10/26/15 00:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.9	1		10/26/15 00:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	2.6	1		10/26/15 00:52	79-00-5	
Trichloroethene	ND	ug/kg	6.1	2.6	1		10/26/15 00:52	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	2.7	1		10/26/15 00:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.9	1		10/26/15 00:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	2.4	1		10/26/15 00:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	2.2	1		10/26/15 00:52	108-67-8	
Vinyl acetate	ND	ug/kg	60.8	10.7	1		10/26/15 00:52	108-05-4	
Vinyl chloride	ND	ug/kg	12.2	2.2	1		10/26/15 00:52	75-01-4	
Xylene (Total)	ND	ug/kg	12.2	4.4	1		10/26/15 00:52	1330-20-7	
m&p-Xylene	ND	ug/kg	12.2	4.4	1		10/26/15 00:52	179601-23-1	
o-Xylene	ND	ug/kg	6.1	2.3	1		10/26/15 00:52	95-47-6	
Surrogates									
Toluene-d8 (S)	93	%	70-130		1		10/26/15 00:52	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		10/26/15 00:52	460-00-4	
1,2-Dichloroethane-d4 (S)	171	%	70-132		1		10/26/15 00:52	17060-07-0	S0
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**3.5**	%	0.10	0.10	1		10/23/15 09:25		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-42 (0-2) **Lab ID: 92272895039** Collected: 10/21/15 12:50 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**18.2J**	ug/kg	173	17.3	1		10/26/15 01:12	67-64-1	
Benzene	ND	ug/kg	8.7	2.8	1		10/26/15 01:12	71-43-2	
Bromobenzene	ND	ug/kg	8.7	3.5	1		10/26/15 01:12	108-86-1	
Bromochloromethane	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	74-97-5	L3
Bromodichloromethane	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	75-27-4	
Bromoform	ND	ug/kg	8.7	4.0	1		10/26/15 01:12	75-25-2	
Bromomethane	ND	ug/kg	17.3	4.3	1		10/26/15 01:12	74-83-9	
2-Butanone (MEK)	ND	ug/kg	173	5.0	1		10/26/15 01:12	78-93-3	L3
n-Butylbenzene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	104-51-8	
sec-Butylbenzene	ND	ug/kg	8.7	2.8	1		10/26/15 01:12	135-98-8	
tert-Butylbenzene	ND	ug/kg	8.7	3.5	1		10/26/15 01:12	98-06-6	
Carbon tetrachloride	ND	ug/kg	8.7	4.5	1		10/26/15 01:12	56-23-5	
Chlorobenzene	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	108-90-7	
Chloroethane	ND	ug/kg	17.3	4.2	1		10/26/15 01:12	75-00-3	
Chloroform	ND	ug/kg	8.7	2.8	1		10/26/15 01:12	67-66-3	
Chloromethane	ND	ug/kg	17.3	4.2	1		10/26/15 01:12	74-87-3	
2-Chlorotoluene	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	95-49-8	
4-Chlorotoluene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	8.7	6.2	1		10/26/15 01:12	96-12-8	
Dibromochloromethane	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	106-93-4	
Dibromomethane	ND	ug/kg	8.7	4.3	1		10/26/15 01:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	8.7	3.5	1		10/26/15 01:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	17.3	6.2	1		10/26/15 01:12	75-71-8	
1,1-Dichloroethane	ND	ug/kg	8.7	2.6	1		10/26/15 01:12	75-34-3	
1,2-Dichloroethane	ND	ug/kg	8.7	3.8	1		10/26/15 01:12	107-06-2	
1,1-Dichloroethene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	8.7	2.4	1		10/26/15 01:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	156-60-5	
1,2-Dichloropropane	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	78-87-5	
1,3-Dichloropropane	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	142-28-9	
2,2-Dichloropropane	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	8.7	2.6	1		10/26/15 01:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	8.7	2.6	1		10/26/15 01:12	10061-02-6	
Diisopropyl ether	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	260	208	1		10/26/15 01:12	123-91-1	
Ethylbenzene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	8.7	3.5	1		10/26/15 01:12	87-68-3	
2-Hexanone	ND	ug/kg	86.7	6.8	1		10/26/15 01:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	98-82-8	
p-Isopropyltoluene	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	99-87-6	
Methylene Chloride	**8.2J**	ug/kg	34.7	5.2	1		10/26/15 01:12	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-42 (0-2) **Lab ID: 92272895039** Collected: 10/21/15 12:50 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	86.7	6.4	1		10/26/15 01:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	8.7	2.6	1		10/26/15 01:12	1634-04-4	
Naphthalene	ND	ug/kg	8.7	2.1	1		10/26/15 01:12	91-20-3	
n-Propylbenzene	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	103-65-1	
Styrene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	8.7	3.6	1		10/26/15 01:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	79-34-5	
Tetrachloroethene	ND	ug/kg	8.7	2.9	1		10/26/15 01:12	127-18-4	
Toluene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	8.7	3.8	1		10/26/15 01:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	8.7	2.8	1		10/26/15 01:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	8.7	3.6	1		10/26/15 01:12	79-00-5	
Trichloroethene	ND	ug/kg	8.7	3.6	1		10/26/15 01:12	79-01-6	
Trichlorofluoromethane	ND	ug/kg	8.7	3.8	1		10/26/15 01:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	8.7	2.8	1		10/26/15 01:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	8.7	3.5	1		10/26/15 01:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	8.7	3.1	1		10/26/15 01:12	108-67-8	
Vinyl acetate	ND	ug/kg	86.7	15.3	1		10/26/15 01:12	108-05-4	
Vinyl chloride	ND	ug/kg	17.3	3.1	1		10/26/15 01:12	75-01-4	
Xylene (Total)	ND	ug/kg	17.3	6.2	1		10/26/15 01:12	1330-20-7	
m&p-Xylene	ND	ug/kg	17.3	6.2	1		10/26/15 01:12	179601-23-1	
o-Xylene	ND	ug/kg	8.7	3.3	1		10/26/15 01:12	95-47-6	
Surrogates									
Toluene-d8 (S)	95	%	70-130		1		10/26/15 01:12	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		10/26/15 01:12	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		10/26/15 01:12	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.3**	%	0.10	0.10	1		10/23/15 09:25		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-45 (3-5) **Lab ID: 92272895040** Collected: 10/21/15 12:55 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	106	10.6	1		10/26/15 01:32	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1		10/26/15 01:32	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		10/26/15 01:32	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	74-97-5	L3
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	75-27-4	
Bromoform	ND	ug/kg	5.3	2.4	1		10/26/15 01:32	75-25-2	
Bromomethane	ND	ug/kg	10.6	2.7	1		10/26/15 01:32	74-83-9	
2-Butanone (MEK)	ND	ug/kg	106	3.1	1		10/26/15 01:32	78-93-3	L3
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		10/26/15 01:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		10/26/15 01:32	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1		10/26/15 01:32	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	108-90-7	
Chloroethane	ND	ug/kg	10.6	2.6	1		10/26/15 01:32	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		10/26/15 01:32	67-66-3	
Chloromethane	ND	ug/kg	10.6	2.6	1		10/26/15 01:32	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		10/26/15 01:32	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.7	1		10/26/15 01:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		10/26/15 01:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.6	3.8	1		10/26/15 01:32	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1.6	1		10/26/15 01:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.3	1		10/26/15 01:32	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.3	1.5	1		10/26/15 01:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	594-20-7	L3
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/26/15 01:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		10/26/15 01:32	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	160	128	1		10/26/15 01:32	123-91-1	
Ethylbenzene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		10/26/15 01:32	87-68-3	
2-Hexanone	ND	ug/kg	53.2	4.1	1		10/26/15 01:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	99-87-6	
Methylene Chloride	**6.5J**	ug/kg	21.3	3.2	1		10/26/15 01:32	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-45 (3-5) **Lab ID: 92272895040** Collected: 10/21/15 12:55 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.2	3.9	1		10/26/15 01:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		10/26/15 01:32	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		10/26/15 01:32	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		10/26/15 01:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1		10/26/15 01:32	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.3	1		10/26/15 01:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		10/26/15 01:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		10/26/15 01:32	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1		10/26/15 01:32	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.3	1		10/26/15 01:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		10/26/15 01:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		10/26/15 01:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		10/26/15 01:32	108-67-8	
Vinyl acetate	ND	ug/kg	53.2	9.4	1		10/26/15 01:32	108-05-4	
Vinyl chloride	ND	ug/kg	10.6	1.9	1		10/26/15 01:32	75-01-4	
Xylene (Total)	ND	ug/kg	10.6	3.8	1		10/26/15 01:32	1330-20-7	
m&p-Xylene	ND	ug/kg	10.6	3.8	1		10/26/15 01:32	179601-23-1	
o-Xylene	ND	ug/kg	5.3	2.0	1		10/26/15 01:32	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		10/26/15 01:32	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		10/26/15 01:32	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/26/15 01:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.3**	%	0.10	0.10	1		10/23/15 09:26		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (3-5) **Lab ID: 92272895041** Collected: 10/21/15 12:55 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	110	11.0	1		10/26/15 20:41	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		10/26/15 20:41	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/26/15 20:41	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/26/15 20:41	75-25-2	
Bromomethane	ND	ug/kg	11.0	2.7	1		10/26/15 20:41	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	3.2	1		10/26/15 20:41	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		10/26/15 20:41	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/26/15 20:41	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		10/26/15 20:41	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	108-90-7	
Chloroethane	ND	ug/kg	11.0	2.6	1		10/26/15 20:41	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		10/26/15 20:41	67-66-3	
Chloromethane	ND	ug/kg	11.0	2.6	1		10/26/15 20:41	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		10/26/15 20:41	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.7	1		10/26/15 20:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/26/15 20:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	4.0	1		10/26/15 20:41	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.6	1		10/26/15 20:41	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/26/15 20:41	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1.5	1		10/26/15 20:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/26/15 20:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/26/15 20:41	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	165	132	1		10/26/15 20:41	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/26/15 20:41	87-68-3	
2-Hexanone	ND	ug/kg	55.0	4.3	1		10/26/15 20:41	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	99-87-6	
Methylene Chloride	**7.5J**	ug/kg	22.0	3.3	1		10/26/15 20:41	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (3-5) **Lab ID: 92272895041** Collected: 10/21/15 12:55 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.0	4.1	1		10/26/15 20:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.6	1		10/26/15 20:41	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/26/15 20:41	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/26/15 20:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.5	1.9	1		10/26/15 20:41	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/26/15 20:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		10/26/15 20:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/26/15 20:41	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		10/26/15 20:41	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/26/15 20:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		10/26/15 20:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/26/15 20:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/26/15 20:41	108-67-8	
Vinyl acetate	ND	ug/kg	55.0	9.7	1		10/26/15 20:41	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.0	2.0	1		10/26/15 20:41	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	4.0	1		10/26/15 20:41	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	4.0	1		10/26/15 20:41	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/26/15 20:41	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		10/26/15 20:41	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/26/15 20:41	460-00-4	
1,2-Dichloroethane-d4 (S)	148	%	70-132		1		10/26/15 20:41	17060-07-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.5**	%	0.10	0.10	1		10/23/15 09:27		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (3-5) **Lab ID: 92272895042** Collected: 10/21/15 13:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	160	16.0	1		10/26/15 21:01	67-64-1	
Benzene	ND	ug/kg	8.0	2.6	1		10/26/15 21:01	71-43-2	
Bromobenzene	ND	ug/kg	8.0	3.2	1		10/26/15 21:01	108-86-1	
Bromochloromethane	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	74-97-5	
Bromodichloromethane	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	75-27-4	
Bromoform	ND	ug/kg	8.0	3.7	1		10/26/15 21:01	75-25-2	
Bromomethane	ND	ug/kg	16.0	4.0	1		10/26/15 21:01	74-83-9	
2-Butanone (MEK)	ND	ug/kg	160	4.6	1		10/26/15 21:01	78-93-3	
n-Butylbenzene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	8.0	2.6	1		10/26/15 21:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	8.0	3.2	1		10/26/15 21:01	98-06-6	
Carbon tetrachloride	ND	ug/kg	8.0	4.2	1		10/26/15 21:01	56-23-5	
Chlorobenzene	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	108-90-7	
Chloroethane	ND	ug/kg	16.0	3.8	1		10/26/15 21:01	75-00-3	
Chloroform	ND	ug/kg	8.0	2.6	1		10/26/15 21:01	67-66-3	
Chloromethane	ND	ug/kg	16.0	3.8	1		10/26/15 21:01	74-87-3	
2-Chlorotoluene	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	8.0	5.8	1		10/26/15 21:01	96-12-8	
Dibromochloromethane	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	106-93-4	
Dibromomethane	ND	ug/kg	8.0	4.0	1		10/26/15 21:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	8.0	3.2	1		10/26/15 21:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	16.0	5.8	1		10/26/15 21:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	8.0	2.4	1		10/26/15 21:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	8.0	3.5	1		10/26/15 21:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	8.0	2.2	1		10/26/15 21:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	8.0	2.4	1		10/26/15 21:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	8.0	2.4	1		10/26/15 21:01	10061-02-6	
Diisopropyl ether	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	240	192	1		10/26/15 21:01	123-91-1	
Ethylbenzene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	8.0	3.2	1		10/26/15 21:01	87-68-3	
2-Hexanone	ND	ug/kg	80.1	6.2	1		10/26/15 21:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	99-87-6	
Methylene Chloride	**18.3J**	ug/kg	32.0	4.8	1		10/26/15 21:01	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (3-5) **Lab ID: 92272895042** Collected: 10/21/15 13:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	80.1	5.9	1		10/26/15 21:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	8.0	2.4	1		10/26/15 21:01	1634-04-4	
Naphthalene	ND	ug/kg	8.0	1.9	1		10/26/15 21:01	91-20-3	
n-Propylbenzene	ND	ug/kg	8.0	2.7	1		10/26/15 21:01	103-65-1	
Styrene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	8.0	3.4	1		10/26/15 21:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	79-34-5	L2
Tetrachloroethene	**29.0**	ug/kg	8.0	2.7	1		10/26/15 21:01	127-18-4	
Toluene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	8.0	3.5	1		10/26/15 21:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	8.0	2.6	1		10/26/15 21:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	8.0	3.4	1		10/26/15 21:01	79-00-5	
Trichloroethene	**6.1J**	ug/kg	8.0	3.4	1		10/26/15 21:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	8.0	3.5	1		10/26/15 21:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	8.0	2.6	1		10/26/15 21:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	8.0	3.2	1		10/26/15 21:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	8.0	2.9	1		10/26/15 21:01	108-67-8	
Vinyl acetate	ND	ug/kg	80.1	14.1	1		10/26/15 21:01	108-05-4	L2
Vinyl chloride	ND	ug/kg	16.0	2.9	1		10/26/15 21:01	75-01-4	
Xylene (Total)	ND	ug/kg	16.0	5.8	1		10/26/15 21:01	1330-20-7	
m&p-Xylene	ND	ug/kg	16.0	5.8	1		10/26/15 21:01	179601-23-1	
o-Xylene	ND	ug/kg	8.0	3.0	1		10/26/15 21:01	95-47-6	
Surrogates									
Toluene-d8 (S)	95	%	70-130		1		10/26/15 21:01	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/26/15 21:01	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		10/26/15 21:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**27.9**	%	0.10	0.10	1		10/23/15 08:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (0-2) **Lab ID: 92272895043** Collected: 10/21/15 13:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**43.2J**	ug/kg	114	11.4	1		10/26/15 21:20	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		10/26/15 21:20	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		10/26/15 21:20	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		10/26/15 21:20	75-25-2	
Bromomethane	ND	ug/kg	11.4	2.8	1		10/26/15 21:20	74-83-9	
2-Butanone (MEK)	**27.9J**	ug/kg	114	3.3	1		10/26/15 21:20	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		10/26/15 21:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		10/26/15 21:20	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	3.0	1		10/26/15 21:20	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	108-90-7	
Chloroethane	ND	ug/kg	11.4	2.7	1		10/26/15 21:20	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		10/26/15 21:20	67-66-3	
Chloromethane	ND	ug/kg	11.4	2.7	1		10/26/15 21:20	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		10/26/15 21:20	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.8	1		10/26/15 21:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		10/26/15 21:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.4	4.1	1		10/26/15 21:20	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		10/26/15 21:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		10/26/15 21:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		10/26/15 21:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		10/26/15 21:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		10/26/15 21:20	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	171	137	1		10/26/15 21:20	123-91-1	
Ethylbenzene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		10/26/15 21:20	87-68-3	
2-Hexanone	ND	ug/kg	56.9	4.4	1		10/26/15 21:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	99-87-6	
Methylene Chloride	**5.0J**	ug/kg	22.8	3.4	1		10/26/15 21:20	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-39 (0-2) **Lab ID: 92272895043** Collected: 10/21/15 13:00 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.9	4.2	1		10/26/15 21:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		10/26/15 21:20	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		10/26/15 21:20	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		10/26/15 21:20	103-65-1	
Styrene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		10/26/15 21:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	79-34-5	L2
Tetrachloroethene	**8.0**	ug/kg	5.7	1.9	1		10/26/15 21:20	127-18-4	D6
Toluene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		10/26/15 21:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		10/26/15 21:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		10/26/15 21:20	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		10/26/15 21:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		10/26/15 21:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		10/26/15 21:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		10/26/15 21:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.0	1		10/26/15 21:20	108-67-8	
Vinyl acetate	ND	ug/kg	56.9	10.0	1		10/26/15 21:20	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.4	2.0	1		10/26/15 21:20	75-01-4	
Xylene (Total)	ND	ug/kg	11.4	4.1	1		10/26/15 21:20	1330-20-7	
m&p-Xylene	ND	ug/kg	11.4	4.1	1		10/26/15 21:20	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.2	1		10/26/15 21:20	95-47-6	
Surrogates									
Toluene-d8 (S)	94	%	70-130		1		10/26/15 21:20	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/26/15 21:20	460-00-4	
1,2-Dichloroethane-d4 (S)	135	%	70-132		1		10/26/15 21:20	17060-07-0	S1
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**26.7**	%	0.10	0.10	1		10/23/15 08:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (0-2) **Lab ID: 92272895044** Collected: 10/21/15 12:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	110	11.0	1		10/26/15 21:40	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		10/26/15 21:40	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		10/26/15 21:40	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		10/26/15 21:40	75-25-2	
Bromomethane	ND	ug/kg	11.0	2.7	1		10/26/15 21:40	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	3.2	1		10/26/15 21:40	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		10/26/15 21:40	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		10/26/15 21:40	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		10/26/15 21:40	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	108-90-7	
Chloroethane	ND	ug/kg	11.0	2.6	1		10/26/15 21:40	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		10/26/15 21:40	67-66-3	
Chloromethane	ND	ug/kg	11.0	2.6	1		10/26/15 21:40	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		10/26/15 21:40	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.7	1		10/26/15 21:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		10/26/15 21:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	4.0	1		10/26/15 21:40	75-71-8	
1,1-Dichloroethane	**2.3J**	ug/kg	5.5	1.6	1		10/26/15 21:40	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		10/26/15 21:40	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	75-35-4	
cis-1,2-Dichloroethene	**7.7**	ug/kg	5.5	1.5	1		10/26/15 21:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/26/15 21:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.6	1		10/26/15 21:40	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	165	132	1		10/26/15 21:40	123-91-1	
Ethylbenzene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		10/26/15 21:40	87-68-3	
2-Hexanone	ND	ug/kg	55.0	4.3	1		10/26/15 21:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	99-87-6	
Methylene Chloride	**4.0J**	ug/kg	22.0	3.3	1		10/26/15 21:40	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (0-2) **Lab ID: 92272895044** Collected: 10/21/15 12:40 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.0	4.1	1		10/26/15 21:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.6	1		10/26/15 21:40	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		10/26/15 21:40	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		10/26/15 21:40	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		10/26/15 21:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	79-34-5	L2
Tetrachloroethene	**7.5**	ug/kg	5.5	1.9	1		10/26/15 21:40	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		10/26/15 21:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		10/26/15 21:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		10/26/15 21:40	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		10/26/15 21:40	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		10/26/15 21:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		10/26/15 21:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		10/26/15 21:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		10/26/15 21:40	108-67-8	
Vinyl acetate	ND	ug/kg	55.0	9.7	1		10/26/15 21:40	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.0	2.0	1		10/26/15 21:40	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	4.0	1		10/26/15 21:40	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	4.0	1		10/26/15 21:40	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		10/26/15 21:40	95-47-6	
Surrogates									
Toluene-d8 (S)	96	%	70-130		1		10/26/15 21:40	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		10/26/15 21:40	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-132		1		10/26/15 21:40	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.0**	%	0.10	0.10	1		10/23/15 08:21		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (8-10) **Lab ID: 92272895045** Collected: 10/21/15 13:10 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	185	18.5	1		10/26/15 22:00	67-64-1	
Benzene	ND	ug/kg	9.2	3.0	1		10/26/15 22:00	71-43-2	
Bromobenzene	ND	ug/kg	9.2	3.7	1		10/26/15 22:00	108-86-1	
Bromochloromethane	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	74-97-5	
Bromodichloromethane	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	75-27-4	
Bromoform	ND	ug/kg	9.2	4.3	1		10/26/15 22:00	75-25-2	
Bromomethane	ND	ug/kg	18.5	4.6	1		10/26/15 22:00	74-83-9	
2-Butanone (MEK)	ND	ug/kg	185	5.4	1		10/26/15 22:00	78-93-3	
n-Butylbenzene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	104-51-8	
sec-Butylbenzene	ND	ug/kg	9.2	3.0	1		10/26/15 22:00	135-98-8	
tert-Butylbenzene	ND	ug/kg	9.2	3.7	1		10/26/15 22:00	98-06-6	
Carbon tetrachloride	ND	ug/kg	9.2	4.8	1		10/26/15 22:00	56-23-5	
Chlorobenzene	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	108-90-7	
Chloroethane	ND	ug/kg	18.5	4.4	1		10/26/15 22:00	75-00-3	
Chloroform	ND	ug/kg	9.2	3.0	1		10/26/15 22:00	67-66-3	
Chloromethane	ND	ug/kg	18.5	4.4	1		10/26/15 22:00	74-87-3	
2-Chlorotoluene	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	95-49-8	
4-Chlorotoluene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	9.2	6.7	1		10/26/15 22:00	96-12-8	
Dibromochloromethane	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	106-93-4	
Dibromomethane	ND	ug/kg	9.2	4.6	1		10/26/15 22:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	9.2	3.7	1		10/26/15 22:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	18.5	6.7	1		10/26/15 22:00	75-71-8	
1,1-Dichloroethane	ND	ug/kg	9.2	2.8	1		10/26/15 22:00	75-34-3	
1,2-Dichloroethane	ND	ug/kg	9.2	4.1	1		10/26/15 22:00	107-06-2	
1,1-Dichloroethene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	9.2	2.6	1		10/26/15 22:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	156-60-5	
1,2-Dichloropropane	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	78-87-5	
1,3-Dichloropropane	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	142-28-9	
2,2-Dichloropropane	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	594-20-7	
1,1-Dichloropropene	ND	ug/kg	9.2	2.8	1		10/26/15 22:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	9.2	2.8	1		10/26/15 22:00	10061-02-6	
Diisopropyl ether	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	277	222	1		10/26/15 22:00	123-91-1	
Ethylbenzene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	9.2	3.7	1		10/26/15 22:00	87-68-3	
2-Hexanone	ND	ug/kg	92.5	7.2	1		10/26/15 22:00	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	98-82-8	
p-Isopropyltoluene	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	99-87-6	
Methylene Chloride	**12.0J**	ug/kg	37.0	5.5	1		10/26/15 22:00	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (8-10) **Lab ID: 92272895045** Collected: 10/21/15 13:10 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	92.5	6.8	1		10/26/15 22:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	9.2	2.8	1		10/26/15 22:00	1634-04-4	
Naphthalene	ND	ug/kg	9.2	2.2	1		10/26/15 22:00	91-20-3	
n-Propylbenzene	ND	ug/kg	9.2	3.1	1		10/26/15 22:00	103-65-1	
Styrene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	9.2	3.9	1		10/26/15 22:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	79-34-5	L2
Tetrachloroethene	**72.4**	ug/kg	9.2	3.1	1		10/26/15 22:00	127-18-4	
Toluene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	9.2	4.1	1		10/26/15 22:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	9.2	3.0	1		10/26/15 22:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	9.2	3.9	1		10/26/15 22:00	79-00-5	
Trichloroethene	**17.4**	ug/kg	9.2	3.9	1		10/26/15 22:00	79-01-6	
Trichlorofluoromethane	ND	ug/kg	9.2	4.1	1		10/26/15 22:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	9.2	3.0	1		10/26/15 22:00	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	9.2	3.7	1		10/26/15 22:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	9.2	3.3	1		10/26/15 22:00	108-67-8	
Vinyl acetate	ND	ug/kg	92.5	16.3	1		10/26/15 22:00	108-05-4	L2
Vinyl chloride	ND	ug/kg	18.5	3.3	1		10/26/15 22:00	75-01-4	
Xylene (Total)	ND	ug/kg	18.5	6.7	1		10/26/15 22:00	1330-20-7	
m&p-Xylene	ND	ug/kg	18.5	6.7	1		10/26/15 22:00	179601-23-1	
o-Xylene	ND	ug/kg	9.2	3.5	1		10/26/15 22:00	95-47-6	
Surrogates									
Toluene-d8 (S)	97	%	70-130		1		10/26/15 22:00	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		10/26/15 22:00	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-132		1		10/26/15 22:00	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**40.5**	%	0.10	0.10	1		10/23/15 08:22		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (13-15) **Lab ID: 92272895046** Collected: 10/21/15 13:05 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**395**	ug/kg	152	15.2	1		10/26/15 22:20	67-64-1	
Benzene	ND	ug/kg	7.6	2.4	1		10/26/15 22:20	71-43-2	
Bromobenzene	ND	ug/kg	7.6	3.0	1		10/26/15 22:20	108-86-1	
Bromochloromethane	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	74-97-5	
Bromodichloromethane	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	75-27-4	
Bromoform	ND	ug/kg	7.6	3.5	1		10/26/15 22:20	75-25-2	
Bromomethane	ND	ug/kg	15.2	3.8	1		10/26/15 22:20	74-83-9	
2-Butanone (MEK)	**75.4J**	ug/kg	152	4.4	1		10/26/15 22:20	78-93-3	
n-Butylbenzene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.6	2.4	1		10/26/15 22:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.6	3.0	1		10/26/15 22:20	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.6	3.9	1		10/26/15 22:20	56-23-5	
Chlorobenzene	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	108-90-7	
Chloroethane	ND	ug/kg	15.2	3.6	1		10/26/15 22:20	75-00-3	
Chloroform	ND	ug/kg	7.6	2.4	1		10/26/15 22:20	67-66-3	
Chloromethane	ND	ug/kg	15.2	3.6	1		10/26/15 22:20	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.6	5.5	1		10/26/15 22:20	96-12-8	
Dibromochloromethane	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	106-93-4	
Dibromomethane	ND	ug/kg	7.6	3.8	1		10/26/15 22:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.6	3.0	1		10/26/15 22:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.2	5.5	1		10/26/15 22:20	75-71-8	
1,1-Dichloroethane	ND	ug/kg	7.6	2.3	1		10/26/15 22:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.6	3.3	1		10/26/15 22:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.6	2.1	1		10/26/15 22:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.6	2.3	1		10/26/15 22:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.6	2.3	1		10/26/15 22:20	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	228	182	1		10/26/15 22:20	123-91-1	
Ethylbenzene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	7.6	3.0	1		10/26/15 22:20	87-68-3	
2-Hexanone	ND	ug/kg	75.9	5.9	1		10/26/15 22:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	99-87-6	
Methylene Chloride	**7.4J**	ug/kg	30.4	4.6	1		10/26/15 22:20	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-50 (13-15) **Lab ID: 92272895046** Collected: 10/21/15 13:05 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	75.9	5.6	1		10/26/15 22:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.6	2.3	1		10/26/15 22:20	1634-04-4	
Naphthalene	ND	ug/kg	7.6	1.8	1		10/26/15 22:20	91-20-3	
n-Propylbenzene	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	103-65-1	
Styrene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.6	3.2	1		10/26/15 22:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	79-34-5	L2
Tetrachloroethene	ND	ug/kg	7.6	2.6	1		10/26/15 22:20	127-18-4	
Toluene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.6	3.3	1		10/26/15 22:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.6	2.4	1		10/26/15 22:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.6	3.2	1		10/26/15 22:20	79-00-5	
Trichloroethene	ND	ug/kg	7.6	3.2	1		10/26/15 22:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.6	3.3	1		10/26/15 22:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.6	2.4	1		10/26/15 22:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.6	3.0	1		10/26/15 22:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.6	2.7	1		10/26/15 22:20	108-67-8	
Vinyl acetate	ND	ug/kg	75.9	13.4	1		10/26/15 22:20	108-05-4	L2
Vinyl chloride	ND	ug/kg	15.2	2.7	1		10/26/15 22:20	75-01-4	
Xylene (Total)	ND	ug/kg	15.2	5.5	1		10/26/15 22:20	1330-20-7	
m&p-Xylene	ND	ug/kg	15.2	5.5	1		10/26/15 22:20	179601-23-1	
o-Xylene	ND	ug/kg	7.6	2.9	1		10/26/15 22:20	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		10/26/15 22:20	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		10/26/15 22:20	460-00-4	
1,2-Dichloroethane-d4 (S)	132	%	70-132		1		10/26/15 22:20	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**25.2**	%	0.10	0.10	1		10/23/15 08:22		

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-46 (3-5) **Lab ID: 92272895047** Collected: 10/21/15 12:45 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**25.1J**	ug/kg	111	11.1	1		10/26/15 22:40	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		10/26/15 22:40	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.2	1		10/26/15 22:40	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		10/26/15 22:40	75-25-2	
Bromomethane	ND	ug/kg	11.1	2.8	1		10/26/15 22:40	74-83-9	
2-Butanone (MEK)	ND	ug/kg	111	3.2	1		10/26/15 22:40	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		10/26/15 22:40	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.2	1		10/26/15 22:40	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		10/26/15 22:40	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	108-90-7	
Chloroethane	ND	ug/kg	11.1	2.7	1		10/26/15 22:40	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		10/26/15 22:40	67-66-3	
Chloromethane	ND	ug/kg	11.1	2.7	1		10/26/15 22:40	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.0	1		10/26/15 22:40	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		10/26/15 22:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.2	1		10/26/15 22:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.1	4.0	1		10/26/15 22:40	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1.7	1		10/26/15 22:40	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.4	1		10/26/15 22:40	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1.6	1		10/26/15 22:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		10/26/15 22:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		10/26/15 22:40	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	167	133	1		10/26/15 22:40	123-91-1	
Ethylbenzene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.2	1		10/26/15 22:40	87-68-3	
2-Hexanone	ND	ug/kg	55.6	4.3	1		10/26/15 22:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	99-87-6	
Methylene Chloride	ND	ug/kg	22.2	3.3	1		10/26/15 22:40	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Sample: DS-46 (3-5) **Lab ID: 92272895047** Collected: 10/21/15 12:45 Received: 10/22/15 09:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.6	4.1	1		10/26/15 22:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		10/26/15 22:40	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.3	1		10/26/15 22:40	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.3	1		10/26/15 22:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.6	1.9	1		10/26/15 22:40	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.4	1		10/26/15 22:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		10/26/15 22:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.3	1		10/26/15 22:40	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.3	1		10/26/15 22:40	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.4	1		10/26/15 22:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		10/26/15 22:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.2	1		10/26/15 22:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		10/26/15 22:40	108-67-8	
Vinyl acetate	ND	ug/kg	55.6	9.8	1		10/26/15 22:40	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.1	2.0	1		10/26/15 22:40	75-01-4	
Xylene (Total)	ND	ug/kg	11.1	4.0	1		10/26/15 22:40	1330-20-7	
m&p-Xylene	ND	ug/kg	11.1	4.0	1		10/26/15 22:40	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		10/26/15 22:40	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		10/26/15 22:40	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		10/26/15 22:40	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		10/26/15 22:40	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.5**	%	0.10	0.10	1		10/23/15 08:22		

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33976
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92272895009

METHOD BLANK: 1591171
Matrix: Water
Associated Lab Samples: 92272895009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	10/26/15 02:30	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	10/26/15 02:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	10/26/15 02:30	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	10/26/15 02:30	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	10/26/15 02:30	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	10/26/15 02:30	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	10/26/15 02:30	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	10/26/15 02:30	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	10/26/15 02:30	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	10/26/15 02:30	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	10/26/15 02:30	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	10/26/15 02:30	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	10/26/15 02:30	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	10/26/15 02:30	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	10/26/15 02:30	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	10/26/15 02:30	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	10/26/15 02:30	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	10/26/15 02:30	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	10/26/15 02:30	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	10/26/15 02:30	
2-Chlorotoluene	ug/L	ND	1.0	0.35	10/26/15 02:30	
2-Hexanone	ug/L	ND	5.0	0.46	10/26/15 02:30	
4-Chlorotoluene	ug/L	ND	1.0	0.31	10/26/15 02:30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	10/26/15 02:30	
Acetone	ug/L	ND	25.0	10.0	10/26/15 02:30	
Benzene	ug/L	ND	1.0	0.25	10/26/15 02:30	
Bromobenzene	ug/L	ND	1.0	0.30	10/26/15 02:30	
Bromochloromethane	ug/L	ND	1.0	0.17	10/26/15 02:30	
Bromodichloromethane	ug/L	ND	1.0	0.18	10/26/15 02:30	
Bromoform	ug/L	ND	1.0	0.26	10/26/15 02:30	
Bromomethane	ug/L	ND	2.0	0.29	10/26/15 02:30	
Carbon tetrachloride	ug/L	ND	1.0	0.25	10/26/15 02:30	
Chlorobenzene	ug/L	ND	1.0	0.23	10/26/15 02:30	
Chloroethane	ug/L	ND	1.0	0.54	10/26/15 02:30	
Chloroform	ug/L	ND	1.0	0.14	10/26/15 02:30	
Chloromethane	ug/L	ND	1.0	0.11	10/26/15 02:30	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	10/26/15 02:30	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	10/26/15 02:30	
Dibromochloromethane	ug/L	ND	1.0	0.21	10/26/15 02:30	
Dibromomethane	ug/L	ND	1.0	0.21	10/26/15 02:30	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	10/26/15 02:30	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1591171 Matrix: Water
Associated Lab Samples: 92272895009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	10/26/15 02:30	
Ethylbenzene	ug/L	ND	1.0	0.30	10/26/15 02:30	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	10/26/15 02:30	
m&p-Xylene	ug/L	ND	2.0	0.66	10/26/15 02:30	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	10/26/15 02:30	
Methylene Chloride	ug/L	ND	2.0	0.97	10/26/15 02:30	
Naphthalene	ug/L	ND	1.0	0.24	10/26/15 02:30	
o-Xylene	ug/L	ND	1.0	0.23	10/26/15 02:30	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	10/26/15 02:30	
Styrene	ug/L	ND	1.0	0.26	10/26/15 02:30	
Tetrachloroethene	ug/L	ND	1.0	0.46	10/26/15 02:30	
Toluene	ug/L	ND	1.0	0.26	10/26/15 02:30	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	10/26/15 02:30	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	10/26/15 02:30	
Trichloroethene	ug/L	ND	1.0	0.47	10/26/15 02:30	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	10/26/15 02:30	
Vinyl acetate	ug/L	ND	2.0	0.35	10/26/15 02:30	
Vinyl chloride	ug/L	ND	1.0	0.62	10/26/15 02:30	
Xylene (Total)	ug/L	ND	2.0	0.66	10/26/15 02:30	
1,2-Dichloroethane-d4 (S)	%	100	70-130		10/26/15 02:30	
4-Bromofluorobenzene (S)	%	102	70-130		10/26/15 02:30	
Toluene-d8 (S)	%	99	70-130		10/26/15 02:30	

LABORATORY CONTROL SAMPLE: 1591172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.6	103	70-130	
1,1,1-Trichloroethane	ug/L	50	59.8	120	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	57.9	116	70-130	
1,1,2-Trichloroethane	ug/L	50	54.6	109	70-130	
1,1-Dichloroethane	ug/L	50	57.9	116	70-130	
1,1-Dichloroethene	ug/L	50	59.7	119	70-132	
1,1-Dichloropropene	ug/L	50	56.9	114	70-130	
1,2,3-Trichlorobenzene	ug/L	50	58.6	117	70-135	
1,2,3-Trichloropropane	ug/L	50	56.9	114	70-130	
1,2,4-Trichlorobenzene	ug/L	50	56.1	112	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	51.1	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	58.9	118	70-130	
1,2-Dichlorobenzene	ug/L	50	56.4	113	70-130	
1,2-Dichloroethane	ug/L	50	51.3	103	70-130	
1,2-Dichloropropane	ug/L	50	55.5	111	70-130	
1,3-Dichlorobenzene	ug/L	50	57.1	114	70-130	
1,3-Dichloropropane	ug/L	50	56.8	114	70-130	
1,4-Dichlorobenzene	ug/L	50	56.4	113	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	54.7	109	58-145	
2-Butanone (MEK)	ug/L	100	119	119	70-145	
2-Chlorotoluene	ug/L	50	59.7	119	70-130	
2-Hexanone	ug/L	100	126	126	70-144	
4-Chlorotoluene	ug/L	50	55.1	110	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	120	120	70-140	
Acetone	ug/L	100	114	114	50-175	
Benzene	ug/L	50	57.6	115	70-130	
Bromobenzene	ug/L	50	55.5	111	70-130	
Bromochloromethane	ug/L	50	61.5	123	70-130	
Bromodichloromethane	ug/L	50	53.1	106	70-130	
Bromoform	ug/L	50	44.6	89	70-130	
Bromomethane	ug/L	50	54.6	109	54-130	
Carbon tetrachloride	ug/L	50	51.4	103	70-132	
Chlorobenzene	ug/L	50	55.9	112	70-130	
Chloroethane	ug/L	50	55.8	112	64-134	
Chloroform	ug/L	50	58.5	117	70-130	
Chloromethane	ug/L	50	53.1	106	64-130	
cis-1,2-Dichloroethene	ug/L	50	55.9	112	70-131	
cis-1,3-Dichloropropene	ug/L	50	51.6	103	70-130	
Dibromochloromethane	ug/L	50	50.2	100	70-130	
Dibromomethane	ug/L	50	58.9	118	70-131	
Dichlorodifluoromethane	ug/L	50	46.3	93	56-130	
Diisopropyl ether	ug/L	50	57.9	116	70-130	
Ethylbenzene	ug/L	50	57.2	114	70-130	
Hexachloro-1,3-butadiene	ug/L	50	58.3	117	70-130	
m&p-Xylene	ug/L	100	115	115	70-130	
Methyl-tert-butyl ether	ug/L	50	59.4	119	70-130	
Methylene Chloride	ug/L	50	50.3	101	63-130	
Naphthalene	ug/L	50	63.2	126	70-138	
o-Xylene	ug/L	50	57.5	115	70-130	
p-Isopropyltoluene	ug/L	50	57.2	114	70-130	
Styrene	ug/L	50	59.2	118	70-130	
Tetrachloroethene	ug/L	50	57.0	114	70-130	
Toluene	ug/L	50	56.3	113	70-130	
trans-1,2-Dichloroethene	ug/L	50	57.3	115	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.2	100	70-132	
Trichloroethene	ug/L	50	55.1	110	70-130	
Trichlorofluoromethane	ug/L	50	55.1	110	62-133	
Vinyl acetate	ug/L	100	118	118	66-157	
Vinyl chloride	ug/L	50	59.1	118	50-150	
Xylene (Total)	ug/L	150	172	115	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1591173 1591174

Parameter	Units	92272889012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	19.5	21.2	97	106	70-130	9	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	22.9	25.6	115	128	70-130	11	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	21.2	21.0	106	105	70-130	1	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.3	21.7	102	108	70-130	7	30	
1,1-Dichloroethane	ug/L	ND	20	20	22.5	24.6	113	123	70-130	9	30	
1,1-Dichloroethene	ug/L	ND	20	20	23.8	26.5	119	132	70-166	11	30	
1,1-Dichloropropene	ug/L	ND	20	20	22.6	24.6	113	123	70-130	8	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	21.1	22.2	106	111	70-130	5	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	20.5	20.7	102	103	70-130	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	21.0	23.2	105	116	70-130	10	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	17.8	17.8	89	89	70-130	0	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	20.8	22.0	104	110	70-130	5	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.7	22.5	103	113	70-130	9	30	
1,2-Dichloroethane	ug/L	ND	20	20	19.7	21.1	98	104	70-130	7	30	
1,2-Dichloropropane	ug/L	ND	20	20	20.9	22.8	105	114	70-130	9	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	21.8	23.8	109	119	70-130	9	30	
1,3-Dichloropropane	ug/L	ND	20	20	20.9	22.3	104	112	70-130	7	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	21.2	22.8	106	114	70-130	7	30	
2,2-Dichloropropane	ug/L	ND	20	20	23.9	27.0	120	135	70-130	12	30	M1
2-Butanone (MEK)	ug/L	ND	40	40	42.1	37.8	105	94	70-130	11	30	
2-Chlorotoluene	ug/L	ND	20	20	21.6	23.7	108	119	70-130	9	30	
2-Hexanone	ug/L	ND	40	40	44.4	40.8	111	102	70-130	8	30	
4-Chlorotoluene	ug/L	ND	20	20	21.9	23.4	110	117	70-130	6	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	43.1	40.6	108	101	70-130	6	30	
Acetone	ug/L	ND	40	40	42.8	37.9	90	77	70-130	12	30	
Benzene	ug/L	ND	20	20	22.6	24.5	113	123	70-148	8	30	
Bromobenzene	ug/L	ND	20	20	21.4	23.2	107	116	70-130	8	30	
Bromochloromethane	ug/L	ND	20	20	22.6	24.3	113	121	70-130	7	30	
Bromodichloromethane	ug/L	ND	20	20	20.1	21.9	101	109	70-130	8	30	
Bromoform	ug/L	ND	20	20	17.1	18.2	86	91	70-130	6	30	
Bromomethane	ug/L	ND	20	20	15.3	23.1	76	116	70-130	41	30	R1
Carbon tetrachloride	ug/L	ND	20	20	20.5	23.0	103	115	70-130	11	30	
Chlorobenzene	ug/L	ND	20	20	21.0	23.2	105	116	70-146	10	30	
Chloroethane	ug/L	ND	20	20	23.5	25.8	118	129	70-130	9	30	
Chloroform	ug/L	0.32J	20	20	22.7	24.8	112	123	70-130	9	30	
Chloromethane	ug/L	ND	20	20	22.1	21.8	111	109	70-130	1	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.4	23.3	107	117	70-130	8	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.8	21.5	99	107	70-130	8	30	
Dibromochloromethane	ug/L	ND	20	20	18.2	19.9	91	100	70-130	9	30	
Dibromomethane	ug/L	ND	20	20	21.5	22.4	107	112	70-130	4	30	
Dichlorodifluoromethane	ug/L	ND	20	20	21.8	23.6	109	118	70-130	8	30	
Diisopropyl ether	ug/L	ND	20	20	21.5	23.2	107	116	70-130	8	30	
Ethylbenzene	ug/L	ND	20	20	21.8	24.4	109	121	70-130	11	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	27.0	29.5	135	147	70-130	9	30	M1

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1591173 1591174

Parameter	Units	92272889012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	1.2J	40	40	44.2	48.8	107	119	70-130	10	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	21.6	23.2	108	116	70-130	7	30	
Methylene Chloride	ug/L	ND	20	20	20.4	21.9	102	110	70-130	7	30	
Naphthalene	ug/L	0.48J	20	20	23.3	23.2	114	114	70-130	0	30	
o-Xylene	ug/L	ND	20	20	21.6	24.2	108	121	70-130	11	30	
p-Isopropyltoluene	ug/L	ND	20	20	22.3	23.9	112	119	70-130	7	30	
Styrene	ug/L	ND	20	20	21.7	23.8	109	119	70-130	9	30	
Tetrachloroethene	ug/L	ND	20	20	21.7	24.3	108	122	70-130	11	30	
Toluene	ug/L	ND	20	20	21.9	24.1	109	120	70-155	10	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.1	24.3	111	121	70-130	9	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.5	21.0	98	105	70-130	7	30	
Trichloroethene	ug/L	ND	20	20	21.8	23.5	109	117	69-151	8	30	
Trichlorofluoromethane	ug/L	ND	20	20	22.6	25.2	113	126	70-130	11	30	
Vinyl acetate	ug/L	ND	40	40	42.1	43.7	105	109	70-130	4	30	
Vinyl chloride	ug/L	ND	20	20	24.7	27.1	123	135	70-130	9	30	M1
1,2-Dichloroethane-d4 (S)	%						99	96	70-130			
4-Bromofluorobenzene (S)	%						99	100	70-130			
Toluene-d8 (S)	%						100	99	70-130			

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33941 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895001, 92272895002, 92272895003, 92272895004, 92272895005, 92272895006

METHOD BLANK: 1590204 Matrix: Solid
Associated Lab Samples: 92272895001, 92272895002, 92272895003, 92272895004, 92272895005, 92272895006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.1	2.2	10/23/15 11:55	
1,1,1-Trichloroethane	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.1	2.0	10/23/15 11:55	
1,1,2-Trichloroethane	ug/kg	ND	5.1	2.2	10/23/15 11:55	
1,1-Dichloroethane	ug/kg	ND	5.1	1.5	10/23/15 11:55	
1,1-Dichloroethene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,1-Dichloropropene	ug/kg	ND	5.1	1.5	10/23/15 11:55	
1,2,3-Trichlorobenzene	ug/kg	ND	5.1	2.3	10/23/15 11:55	
1,2,3-Trichloropropane	ug/kg	ND	5.1	1.6	10/23/15 11:55	
1,2,4-Trichlorobenzene	ug/kg	ND	5.1	1.6	10/23/15 11:55	
1,2,4-Trimethylbenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.1	3.7	10/23/15 11:55	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,2-Dichlorobenzene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
1,2-Dichloroethane	ug/kg	ND	5.1	2.3	10/23/15 11:55	
1,2-Dichloropropane	ug/kg	ND	5.1	1.7	10/23/15 11:55	
1,3,5-Trimethylbenzene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
1,3-Dichlorobenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
1,3-Dichloropropane	ug/kg	ND	5.1	2.0	10/23/15 11:55	
1,4-Dichlorobenzene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	154	123	10/23/15 11:55	
2,2-Dichloropropane	ug/kg	ND	5.1	1.7	10/23/15 11:55	
2-Butanone (MEK)	ug/kg	ND	103	3.0	10/23/15 11:55	
2-Chlorotoluene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
2-Hexanone	ug/kg	ND	51.3	4.0	10/23/15 11:55	
4-Chlorotoluene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	51.3	3.8	10/23/15 11:55	
Acetone	ug/kg	ND	103	10.3	10/23/15 11:55	
Benzene	ug/kg	ND	5.1	1.6	10/23/15 11:55	
Bromobenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
Bromochloromethane	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Bromodichloromethane	ug/kg	ND	5.1	2.0	10/23/15 11:55	
Bromoform	ug/kg	ND	5.1	2.4	10/23/15 11:55	
Bromomethane	ug/kg	ND	10.3	2.6	10/23/15 11:55	
Carbon tetrachloride	ug/kg	ND	5.1	2.7	10/23/15 11:55	
Chlorobenzene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
Chloroethane	ug/kg	ND	10.3	2.5	10/23/15 11:55	
Chloroform	ug/kg	ND	5.1	1.6	10/23/15 11:55	
Chloromethane	ug/kg	ND	10.3	2.5	10/23/15 11:55	
cis-1,2-Dichloroethene	ug/kg	ND	5.1	1.4	10/23/15 11:55	
cis-1,3-Dichloropropene	ug/kg	ND	5.1	1.8	10/23/15 11:55	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1590204 Matrix: Solid
Associated Lab Samples: 92272895001, 92272895002, 92272895003, 92272895004, 92272895005, 92272895006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.1	1.8	10/23/15 11:55	
Dibromomethane	ug/kg	ND	5.1	2.6	10/23/15 11:55	
Dichlorodifluoromethane	ug/kg	ND	10.3	3.7	10/23/15 11:55	
Diisopropyl ether	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Ethylbenzene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
Hexachloro-1,3-butadiene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
Isopropylbenzene (Cumene)	ug/kg	ND	5.1	2.0	10/23/15 11:55	
m&p-Xylene	ug/kg	ND	10.3	3.7	10/23/15 11:55	
Methyl-tert-butyl ether	ug/kg	ND	5.1	1.5	10/23/15 11:55	
Methylene Chloride	ug/kg	ND	20.5	3.1	10/23/15 11:55	
n-Butylbenzene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
n-Propylbenzene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Naphthalene	ug/kg	ND	5.1	1.2	10/23/15 11:55	
o-Xylene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
p-Isopropyltoluene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
sec-Butylbenzene	ug/kg	ND	5.1	1.6	10/23/15 11:55	
Styrene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
tert-Butylbenzene	ug/kg	ND	5.1	2.1	10/23/15 11:55	
Tetrachloroethene	ug/kg	ND	5.1	1.7	10/23/15 11:55	
Toluene	ug/kg	ND	5.1	1.8	10/23/15 11:55	
trans-1,2-Dichloroethene	ug/kg	ND	5.1	2.0	10/23/15 11:55	
trans-1,3-Dichloropropene	ug/kg	ND	5.1	1.5	10/23/15 11:55	
Trichloroethene	ug/kg	ND	5.1	2.2	10/23/15 11:55	
Trichlorofluoromethane	ug/kg	ND	5.1	2.3	10/23/15 11:55	
Vinyl acetate	ug/kg	ND	51.3	9.0	10/23/15 11:55	
Vinyl chloride	ug/kg	ND	10.3	1.8	10/23/15 11:55	
Xylene (Total)	ug/kg	ND	10.3	3.7	10/23/15 11:55	
1,2-Dichloroethane-d4 (S)	%	106	70-132		10/23/15 11:55	
4-Bromofluorobenzene (S)	%	100	70-130		10/23/15 11:55	
Toluene-d8 (S)	%	98	70-130		10/23/15 11:55	

LABORATORY CONTROL SAMPLE: 1590205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	50.6	55.0	109	74-137	
1,1,1-Trichloroethane	ug/kg	50.6	58.6	116	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	50.6	52.4	104	72-141	
1,1,2-Trichloroethane	ug/kg	50.6	53.1	105	78-138	
1,1-Dichloroethane	ug/kg	50.6	55.6	110	69-134	
1,1-Dichloroethene	ug/kg	50.6	59.1	117	67-138	
1,1-Dichloropropene	ug/kg	50.6	56.1	111	69-139	
1,2,3-Trichlorobenzene	ug/kg	50.6	51.5	102	70-146	
1,2,3-Trichloropropane	ug/kg	50.6	57.1	113	69-144	
1,2,4-Trichlorobenzene	ug/kg	50.6	49.9	99	68-148	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1590205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	50.6	53.7	106	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	50.6	59.6	118	65-140	
1,2-Dibromoethane (EDB)	ug/kg	50.6	56.5	112	77-135	
1,2-Dichlorobenzene	ug/kg	50.6	53.7	106	77-141	
1,2-Dichloroethane	ug/kg	50.6	54.7	108	65-137	
1,2-Dichloropropane	ug/kg	50.6	55.3	109	72-136	
1,3,5-Trimethylbenzene	ug/kg	50.6	55.5	110	76-133	
1,3-Dichlorobenzene	ug/kg	50.6	54.9	108	74-138	
1,3-Dichloropropane	ug/kg	50.6	54.2	107	71-139	
1,4-Dichlorobenzene	ug/kg	50.6	52.9	105	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1010	1120	110	54-154	
2,2-Dichloropropane	ug/kg	50.6	58.6	116	68-137	
2-Butanone (MEK)	ug/kg	101	120	119	58-147	
2-Chlorotoluene	ug/kg	50.6	54.5	108	73-139	
2-Hexanone	ug/kg	101	123	122	62-145	
4-Chlorotoluene	ug/kg	50.6	54.2	107	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	101	123	121	64-149	
Acetone	ug/kg	101	122	120	53-153	
Benzene	ug/kg	50.6	56.6	112	73-135	
Bromobenzene	ug/kg	50.6	54.0	107	75-133	
Bromochloromethane	ug/kg	50.6	59.4	117	73-134	
Bromodichloromethane	ug/kg	50.6	56.1	111	71-135	
Bromoform	ug/kg	50.6	54.8	108	66-141	
Bromomethane	ug/kg	50.6	58.3	115	53-160	
Carbon tetrachloride	ug/kg	50.6	60.9	120	60-145	
Chlorobenzene	ug/kg	50.6	54.1	107	78-130	
Chloroethane	ug/kg	50.6	51.2	101	64-149	
Chloroform	ug/kg	50.6	56.0	111	70-134	
Chloromethane	ug/kg	50.6	58.5	116	52-150	
cis-1,2-Dichloroethene	ug/kg	50.6	56.1	111	70-133	
cis-1,3-Dichloropropene	ug/kg	50.6	56.2	111	68-134	
Dibromochloromethane	ug/kg	50.6	56.8	112	71-138	
Dibromomethane	ug/kg	50.6	56.4	111	74-130	
Dichlorodifluoromethane	ug/kg	50.6	49.3	97	40-160	
Diisopropyl ether	ug/kg	50.6	58.9	116	69-141	
Ethylbenzene	ug/kg	50.6	57.2	113	75-133	
Hexachloro-1,3-butadiene	ug/kg	50.6	51.2	101	68-143	
Isopropylbenzene (Cumene)	ug/kg	50.6	60.7	120	76-143	
m&p-Xylene	ug/kg	101	111	110	75-136	
Methyl-tert-butyl ether	ug/kg	50.6	57.3	113	68-144	
Methylene Chloride	ug/kg	50.6	58.3	115	45-154	
n-Butylbenzene	ug/kg	50.6	55.0	109	72-137	
n-Propylbenzene	ug/kg	50.6	55.6	110	76-136	
Naphthalene	ug/kg	50.6	53.8	106	68-151	
o-Xylene	ug/kg	50.6	55.4	109	76-141	
p-Isopropyltoluene	ug/kg	50.6	55.1	109	76-140	
sec-Butylbenzene	ug/kg	50.6	57.6	114	79-139	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1590205

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	50.6	56.1	111	79-137	
tert-Butylbenzene	ug/kg	50.6	50.6	100	74-143	
Tetrachloroethene	ug/kg	50.6	45.8	90	71-138	
Toluene	ug/kg	50.6	56.7	112	74-131	
trans-1,2-Dichloroethene	ug/kg	50.6	56.8	112	67-135	
trans-1,3-Dichloropropene	ug/kg	50.6	55.7	110	65-146	
Trichloroethene	ug/kg	50.6	55.6	110	67-135	
Trichlorofluoromethane	ug/kg	50.6	52.1	103	59-144	
Vinyl acetate	ug/kg	101	84.8	84	40-160	F3
Vinyl chloride	ug/kg	50.6	55.1	109	56-141	
Xylene (Total)	ug/kg	152	167	110	76-137	
1,2-Dichloroethane-d4 (S)	%			105	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1591058

Parameter	Units	92272895002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	19.5	17.2	88	70-130	
1,1,1-Trichloroethane	ug/kg	ND	19.5	20.2	99	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	19.5	17.2	88	70-130	
1,1,2-Trichloroethane	ug/kg	ND	19.5	18.6	95	70-130	
1,1-Dichloroethane	ug/kg	ND	19.5	21.9	108	70-130	
1,1-Dichloroethene	ug/kg	ND	19.5	20.8	107	49-180	
1,1-Dichloropropene	ug/kg	ND	19.5	18.0	92	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	19.5	6.4	33	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	19.5	18.6	95	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	19.5	6.3	32	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	19.5	15.0	77	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	19.5	19.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	19.5	19.5	100	70-130	
1,2-Dichlorobenzene	ug/kg	ND	19.5	13.1	67	70-130	M1
1,2-Dichloroethane	ug/kg	ND	19.5	20.2	103	70-130	
1,2-Dichloropropane	ug/kg	ND	19.5	17.8	91	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	19.5	15.7	80	70-130	
1,3-Dichlorobenzene	ug/kg	ND	19.5	13.5	69	70-130	M1
1,3-Dichloropropane	ug/kg	ND	19.5	19.6	100	70-130	
1,4-Dichlorobenzene	ug/kg	ND	19.5	13.3	68	70-130	M1
1,4-Dioxane (p-Dioxane)	ug/kg	ND	391	407	104	70-130	
2,2-Dichloropropane	ug/kg	ND	19.5	19.5	100	70-130	
2-Butanone (MEK)	ug/kg	ND	39.1	50.4J	129	70-130	
2-Chlorotoluene	ug/kg	ND	19.5	16.2	83	70-130	
2-Hexanone	ug/kg	ND	39.1	48.1J	123	70-130	
4-Chlorotoluene	ug/kg	ND	19.5	15.4	79	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	39.1	43.8J	112	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE SAMPLE: 1591058

Parameter	Units	92272895002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	27.7J	39.1	73.3J	117	70-130	
Benzene	ug/kg	ND	19.5	19.0	97	50-166	
Bromobenzene	ug/kg	ND	19.5	17.6	90	70-130	
Bromochloromethane	ug/kg	ND	19.5	19.2	98	70-130	
Bromodichloromethane	ug/kg	ND	19.5	17.8	91	70-130	
Bromoform	ug/kg	ND	19.5	15.6	80	70-130	
Bromomethane	ug/kg	ND	19.5	25.0	128	70-130	
Carbon tetrachloride	ug/kg	ND	19.5	18.3	94	70-130	
Chlorobenzene	ug/kg	ND	19.5	16.0	82	43-169	
Chloroethane	ug/kg	ND	19.5	19.3	99	70-130	
Chloroform	ug/kg	ND	19.5	19.6	100	70-130	
Chloromethane	ug/kg	ND	19.5	22.3	114	70-130	
cis-1,2-Dichloroethene	ug/kg	1.7J	19.5	22.8	108	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	19.5	17.7	91	70-130	
Dibromochloromethane	ug/kg	ND	19.5	17.8	91	70-130	
Dibromomethane	ug/kg	ND	19.5	18.9	97	70-130	
Dichlorodifluoromethane	ug/kg	ND	19.5	17.6	90	70-130	
Diisopropyl ether	ug/kg	ND	19.5	21.8	111	70-130	
Ethylbenzene	ug/kg	ND	19.5	16.4	84	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	19.5	5.8	30	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	19.5	15.1	77	70-130	
m&p-Xylene	ug/kg	ND	39.1	32.2	82	70-130	
Methyl-tert-butyl ether	ug/kg	ND	19.5	21.9	112	70-130	
Methylene Chloride	ug/kg	13.6J	19.5	29.9	84	70-130	
n-Butylbenzene	ug/kg	ND	19.5	11.3	58	70-130	M1
n-Propylbenzene	ug/kg	ND	19.5	16.4	84	70-130	
Naphthalene	ug/kg	ND	19.5	10.9	56	70-130	M1
o-Xylene	ug/kg	ND	19.5	15.2	78	70-130	
p-Isopropyltoluene	ug/kg	ND	19.5	13.0	67	70-130	M1
sec-Butylbenzene	ug/kg	ND	19.5	14.4	74	70-130	
Styrene	ug/kg	ND	19.5	14.7	75	70-130	
tert-Butylbenzene	ug/kg	ND	19.5	14.2	73	70-130	
Tetrachloroethene	ug/kg	2.7J	19.5	15.9	68	70-130	M1
Toluene	ug/kg	ND	19.5	17.3	85	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	19.5	20.6	105	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	19.5	16.5	84	70-130	
Trichloroethene	ug/kg	ND	19.5	17.4	85	49-167	
Trichlorofluoromethane	ug/kg	ND	19.5	20.0	102	70-130	
Vinyl acetate	ug/kg	ND	39.1	37.5J	96	70-130	
Vinyl chloride	ug/kg	ND	19.5	21.0	107	70-130	
1,2-Dichloroethane-d4 (S)	%				112	70-132	
4-Bromofluorobenzene (S)	%				92	70-130	
Toluene-d8 (S)	%				95	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1591044

Parameter	Units	92272772001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	36.0J	39.0J		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	41.1J	49.1J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1591044

Parameter	Units	92272772001 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	8.3J	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	3.8J		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	111	112	11		
4-Bromofluorobenzene (S)	%	100	99	8		
Toluene-d8 (S)	%	101	99	7		

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33942
Analysis Method: EPA 8260
QC Batch Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895007, 92272895008

METHOD BLANK: 1590223
Matrix: Solid
Associated Lab Samples: 92272895007, 92272895008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	2.1	10/23/15 11:36	
1,1,1-Trichloroethane	ug/kg	ND	5.0	1.8	10/23/15 11:36	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	1.9	10/23/15 11:36	
1,1,2-Trichloroethane	ug/kg	ND	5.0	2.1	10/23/15 11:36	
1,1-Dichloroethane	ug/kg	ND	5.0	1.5	10/23/15 11:36	
1,1-Dichloroethene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
1,1-Dichloropropene	ug/kg	ND	5.0	1.5	10/23/15 11:36	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	2.2	10/23/15 11:36	
1,2,3-Trichloropropane	ug/kg	ND	5.0	1.6	10/23/15 11:36	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	1.6	10/23/15 11:36	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	2.0	10/23/15 11:36	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	3.6	10/23/15 11:36	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	1.8	10/23/15 11:36	
1,2-Dichlorobenzene	ug/kg	ND	5.0	1.9	10/23/15 11:36	
1,2-Dichloroethane	ug/kg	ND	5.0	2.2	10/23/15 11:36	
1,2-Dichloropropane	ug/kg	ND	5.0	1.7	10/23/15 11:36	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
1,3-Dichlorobenzene	ug/kg	ND	5.0	2.0	10/23/15 11:36	
1,3-Dichloropropane	ug/kg	ND	5.0	1.9	10/23/15 11:36	
1,4-Dichlorobenzene	ug/kg	ND	5.0	1.7	10/23/15 11:36	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	151	121	10/23/15 11:36	
2,2-Dichloropropane	ug/kg	ND	5.0	1.7	10/23/15 11:36	
2-Butanone (MEK)	ug/kg	ND	101	2.9	10/23/15 11:36	
2-Chlorotoluene	ug/kg	ND	5.0	1.7	10/23/15 11:36	
2-Hexanone	ug/kg	ND	50.3	3.9	10/23/15 11:36	
4-Chlorotoluene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.3	3.7	10/23/15 11:36	
Acetone	ug/kg	ND	101	10.1	10/23/15 11:36	
Benzene	ug/kg	ND	5.0	1.6	10/23/15 11:36	
Bromobenzene	ug/kg	ND	5.0	2.0	10/23/15 11:36	
Bromochloromethane	ug/kg	ND	5.0	1.7	10/23/15 11:36	
Bromodichloromethane	ug/kg	ND	5.0	1.9	10/23/15 11:36	
Bromoform	ug/kg	ND	5.0	2.3	10/23/15 11:36	
Bromomethane	ug/kg	ND	10.1	2.5	10/23/15 11:36	
Carbon tetrachloride	ug/kg	ND	5.0	2.6	10/23/15 11:36	
Chlorobenzene	ug/kg	ND	5.0	1.9	10/23/15 11:36	
Chloroethane	ug/kg	ND	10.1	2.4	10/23/15 11:36	
Chloroform	ug/kg	ND	5.0	1.6	10/23/15 11:36	
Chloromethane	ug/kg	ND	10.1	2.4	10/23/15 11:36	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	1.4	10/23/15 11:36	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	1.8	10/23/15 11:36	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1590223 Matrix: Solid
Associated Lab Samples: 92272895007, 92272895008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.0	1.8	10/23/15 11:36	
Dibromomethane	ug/kg	ND	5.0	2.5	10/23/15 11:36	
Dichlorodifluoromethane	ug/kg	ND	10.1	3.6	10/23/15 11:36	
Diisopropyl ether	ug/kg	ND	5.0	1.7	10/23/15 11:36	
Ethylbenzene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	2.0	10/23/15 11:36	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	1.9	10/23/15 11:36	
m&p-Xylene	ug/kg	ND	10.1	3.6	10/23/15 11:36	
Methyl-tert-butyl ether	ug/kg	ND	5.0	1.5	10/23/15 11:36	
Methylene Chloride	ug/kg	ND	20.1	3.0	10/23/15 11:36	
n-Butylbenzene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
n-Propylbenzene	ug/kg	ND	5.0	1.7	10/23/15 11:36	
Naphthalene	ug/kg	1.4J	5.0	1.2	10/23/15 11:36	
o-Xylene	ug/kg	ND	5.0	1.9	10/23/15 11:36	
p-Isopropyltoluene	ug/kg	ND	5.0	1.7	10/23/15 11:36	
sec-Butylbenzene	ug/kg	ND	5.0	1.6	10/23/15 11:36	
Styrene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
tert-Butylbenzene	ug/kg	ND	5.0	2.0	10/23/15 11:36	
Tetrachloroethene	ug/kg	ND	5.0	1.7	10/23/15 11:36	
Toluene	ug/kg	ND	5.0	1.8	10/23/15 11:36	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	1.9	10/23/15 11:36	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	1.5	10/23/15 11:36	
Trichloroethene	ug/kg	ND	5.0	2.1	10/23/15 11:36	
Trichlorofluoromethane	ug/kg	ND	5.0	2.2	10/23/15 11:36	
Vinyl acetate	ug/kg	ND	50.3	8.9	10/23/15 11:36	
Vinyl chloride	ug/kg	ND	10.1	1.8	10/23/15 11:36	
Xylene (Total)	ug/kg	ND	10.1	3.6	10/23/15 11:36	
1,2-Dichloroethane-d4 (S)	%	107	70-132		10/23/15 11:36	
4-Bromofluorobenzene (S)	%	100	70-130		10/23/15 11:36	
Toluene-d8 (S)	%	99	70-130		10/23/15 11:36	

LABORATORY CONTROL SAMPLE: 1590224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	32.6	29.7	91	74-137	
1,1,1-Trichloroethane	ug/kg	32.6	32.1	99	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	32.6	24.0	74	72-141	
1,1,2-Trichloroethane	ug/kg	32.6	24.8	76	78-138	L0
1,1-Dichloroethane	ug/kg	32.6	30.7	94	69-134	
1,1-Dichloroethene	ug/kg	32.6	33.5	103	67-138	
1,1-Dichloropropene	ug/kg	32.6	32.7	100	69-139	
1,2,3-Trichlorobenzene	ug/kg	32.6	26.7	82	70-146	
1,2,3-Trichloropropane	ug/kg	32.6	23.0	71	69-144	
1,2,4-Trichlorobenzene	ug/kg	32.6	28.0	86	68-148	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1590224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	32.6	32.9	101	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	32.6	22.8	70	65-140	
1,2-Dibromoethane (EDB)	ug/kg	32.6	25.8	79	77-135	
1,2-Dichlorobenzene	ug/kg	32.6	29.0	89	77-141	
1,2-Dichloroethane	ug/kg	32.6	25.4	78	65-137	
1,2-Dichloropropane	ug/kg	32.6	28.9	89	72-136	
1,3,5-Trimethylbenzene	ug/kg	32.6	33.7	103	76-133	
1,3-Dichlorobenzene	ug/kg	32.6	31.0	95	74-138	
1,3-Dichloropropane	ug/kg	32.6	26.1	80	71-139	
1,4-Dichlorobenzene	ug/kg	32.6	30.4	93	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	651	435	67	54-154	
2,2-Dichloropropane	ug/kg	32.6	33.1	102	68-137	
2-Butanone (MEK)	ug/kg	65.1	46.3J	71	58-147	
2-Chlorotoluene	ug/kg	32.6	32.5	100	73-139	
2-Hexanone	ug/kg	65.1	50.4	77	62-145	
4-Chlorotoluene	ug/kg	32.6	31.8	98	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	65.1	50.7	78	64-149	
Acetone	ug/kg	65.1	49.8J	76	53-153	
Benzene	ug/kg	32.6	31.8	98	73-135	
Bromobenzene	ug/kg	32.6	30.0	92	75-133	
Bromochloromethane	ug/kg	32.6	28.0	86	73-134	
Bromodichloromethane	ug/kg	32.6	28.8	88	71-135	
Bromoform	ug/kg	32.6	24.9	77	66-141	
Bromomethane	ug/kg	32.6	35.3	108	53-160	
Carbon tetrachloride	ug/kg	32.6	36.5	112	60-145	
Chlorobenzene	ug/kg	32.6	30.8	95	78-130	
Chloroethane	ug/kg	32.6	30.1	92	64-149	
Chloroform	ug/kg	32.6	29.8	91	70-134	
Chloromethane	ug/kg	32.6	33.5	103	52-150	
cis-1,2-Dichloroethene	ug/kg	32.6	30.3	93	70-133	
cis-1,3-Dichloropropene	ug/kg	32.6	28.7	88	68-134	
Dibromochloromethane	ug/kg	32.6	27.1	83	71-138	
Dibromomethane	ug/kg	32.6	25.9	79	74-130	
Dichlorodifluoromethane	ug/kg	32.6	29.9	92	40-160	
Diisopropyl ether	ug/kg	32.6	29.5	91	69-141	
Ethylbenzene	ug/kg	32.6	33.6	103	75-133	
Hexachloro-1,3-butadiene	ug/kg	32.6	31.8	98	68-143	
Isopropylbenzene (Cumene)	ug/kg	32.6	36.7	113	76-143	
m&p-Xylene	ug/kg	65.1	67.2	103	75-136	
Methyl-tert-butyl ether	ug/kg	32.6	25.1	77	68-144	
Methylene Chloride	ug/kg	32.6	29.9	92	45-154	
n-Butylbenzene	ug/kg	32.6	34.7	107	72-137	
n-Propylbenzene	ug/kg	32.6	34.5	106	76-136	
Naphthalene	ug/kg	32.6	25.1	77	68-151	
o-Xylene	ug/kg	32.6	31.8	98	76-141	
p-Isopropyltoluene	ug/kg	32.6	34.2	105	76-140	
sec-Butylbenzene	ug/kg	32.6	36.2	111	79-139	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1590224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	32.6	30.5	94	79-137	
tert-Butylbenzene	ug/kg	32.6	31.4	96	74-143	
Tetrachloroethene	ug/kg	32.6	28.4	87	71-138	
Toluene	ug/kg	32.6	32.3	99	74-131	
trans-1,2-Dichloroethene	ug/kg	32.6	32.4	100	67-135	
trans-1,3-Dichloropropene	ug/kg	32.6	26.6	82	65-146	
Trichloroethene	ug/kg	32.6	32.1	98	67-135	
Trichlorofluoromethane	ug/kg	32.6	30.5	94	59-144	
Vinyl acetate	ug/kg	65.1	48.8	75	40-160	F3
Vinyl chloride	ug/kg	32.6	33.0	101	56-141	
Xylene (Total)	ug/kg	97.7	99.0	101	76-137	
1,2-Dichloroethane-d4 (S)	%			90	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33964 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895010, 92272895011

METHOD BLANK: 1591075 | Matrix: Solid
Associated Lab Samples: 92272895010, 92272895011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.8	2.4	10/24/15 12:20	
1,1,1-Trichloroethane	ug/kg	ND	5.8	2.1	10/24/15 12:20	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.8	2.2	10/24/15 12:20	
1,1,2-Trichloroethane	ug/kg	ND	5.8	2.4	10/24/15 12:20	
1,1-Dichloroethane	ug/kg	ND	5.8	1.7	10/24/15 12:20	
1,1-Dichloroethene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
1,1-Dichloropropene	ug/kg	ND	5.8	1.7	10/24/15 12:20	
1,2,3-Trichlorobenzene	ug/kg	ND	5.8	2.5	10/24/15 12:20	
1,2,3-Trichloropropane	ug/kg	ND	5.8	1.8	10/24/15 12:20	
1,2,4-Trichlorobenzene	ug/kg	ND	5.8	1.8	10/24/15 12:20	
1,2,4-Trimethylbenzene	ug/kg	ND	5.8	2.3	10/24/15 12:20	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.8	4.2	10/24/15 12:20	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.8	2.1	10/24/15 12:20	
1,2-Dichlorobenzene	ug/kg	ND	5.8	2.2	10/24/15 12:20	
1,2-Dichloroethane	ug/kg	ND	5.8	2.5	10/24/15 12:20	
1,2-Dichloropropane	ug/kg	ND	5.8	2.0	10/24/15 12:20	
1,3,5-Trimethylbenzene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
1,3-Dichlorobenzene	ug/kg	ND	5.8	2.3	10/24/15 12:20	
1,3-Dichloropropane	ug/kg	ND	5.8	2.2	10/24/15 12:20	
1,4-Dichlorobenzene	ug/kg	ND	5.8	2.0	10/24/15 12:20	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	173	139	10/24/15 12:20	
2,2-Dichloropropane	ug/kg	ND	5.8	2.0	10/24/15 12:20	
2-Butanone (MEK)	ug/kg	ND	115	3.3	10/24/15 12:20	
2-Chlorotoluene	ug/kg	ND	5.8	2.0	10/24/15 12:20	
2-Hexanone	ug/kg	ND	57.7	4.5	10/24/15 12:20	
4-Chlorotoluene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	57.7	4.3	10/24/15 12:20	
Acetone	ug/kg	ND	115	11.5	10/24/15 12:20	
Benzene	ug/kg	ND	5.8	1.8	10/24/15 12:20	
Bromobenzene	ug/kg	ND	5.8	2.3	10/24/15 12:20	
Bromochloromethane	ug/kg	ND	5.8	2.0	10/24/15 12:20	
Bromodichloromethane	ug/kg	ND	5.8	2.2	10/24/15 12:20	
Bromoform	ug/kg	ND	5.8	2.7	10/24/15 12:20	
Bromomethane	ug/kg	ND	11.5	2.9	10/24/15 12:20	
Carbon tetrachloride	ug/kg	ND	5.8	3.0	10/24/15 12:20	
Chlorobenzene	ug/kg	ND	5.8	2.2	10/24/15 12:20	
Chloroethane	ug/kg	ND	11.5	2.8	10/24/15 12:20	
Chloroform	ug/kg	ND	5.8	1.8	10/24/15 12:20	
Chloromethane	ug/kg	ND	11.5	2.8	10/24/15 12:20	
cis-1,2-Dichloroethene	ug/kg	ND	5.8	1.6	10/24/15 12:20	
cis-1,3-Dichloropropene	ug/kg	ND	5.8	2.1	10/24/15 12:20	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1591075 Matrix: Solid
Associated Lab Samples: 92272895010, 92272895011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.8	2.1	10/24/15 12:20	
Dibromomethane	ug/kg	ND	5.8	2.9	10/24/15 12:20	
Dichlorodifluoromethane	ug/kg	ND	11.5	4.2	10/24/15 12:20	
Diisopropyl ether	ug/kg	ND	5.8	2.0	10/24/15 12:20	
Ethylbenzene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
Hexachloro-1,3-butadiene	ug/kg	ND	5.8	2.3	10/24/15 12:20	
Isopropylbenzene (Cumene)	ug/kg	ND	5.8	2.2	10/24/15 12:20	
m&p-Xylene	ug/kg	ND	11.5	4.2	10/24/15 12:20	
Methyl-tert-butyl ether	ug/kg	ND	5.8	1.7	10/24/15 12:20	
Methylene Chloride	ug/kg	ND	23.1	3.5	10/24/15 12:20	
n-Butylbenzene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
n-Propylbenzene	ug/kg	ND	5.8	2.0	10/24/15 12:20	
Naphthalene	ug/kg	1.8J	5.8	1.4	10/24/15 12:20	
o-Xylene	ug/kg	ND	5.8	2.2	10/24/15 12:20	
p-Isopropyltoluene	ug/kg	ND	5.8	2.0	10/24/15 12:20	
sec-Butylbenzene	ug/kg	ND	5.8	1.8	10/24/15 12:20	
Styrene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
tert-Butylbenzene	ug/kg	ND	5.8	2.3	10/24/15 12:20	
Tetrachloroethene	ug/kg	ND	5.8	2.0	10/24/15 12:20	
Toluene	ug/kg	ND	5.8	2.1	10/24/15 12:20	
trans-1,2-Dichloroethene	ug/kg	ND	5.8	2.2	10/24/15 12:20	
trans-1,3-Dichloropropene	ug/kg	ND	5.8	1.7	10/24/15 12:20	
Trichloroethene	ug/kg	ND	5.8	2.4	10/24/15 12:20	
Trichlorofluoromethane	ug/kg	ND	5.8	2.5	10/24/15 12:20	
Vinyl acetate	ug/kg	ND	57.7	10.2	10/24/15 12:20	
Vinyl chloride	ug/kg	ND	11.5	2.1	10/24/15 12:20	
Xylene (Total)	ug/kg	ND	11.5	4.2	10/24/15 12:20	
1,2-Dichloroethane-d4 (S)	%	107	70-132		10/24/15 12:20	
4-Bromofluorobenzene (S)	%	102	70-130		10/24/15 12:20	
Toluene-d8 (S)	%	100	70-130		10/24/15 12:20	

LABORATORY CONTROL SAMPLE: 1591076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	47	50.3	107	74-137	
1,1,1-Trichloroethane	ug/kg	47	52.1	111	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	47	46.1	98	72-141	
1,1,2-Trichloroethane	ug/kg	47	49.3	105	78-138	
1,1-Dichloroethane	ug/kg	47	51.2	109	69-134	
1,1-Dichloroethene	ug/kg	47	53.3	113	67-138	
1,1-Dichloropropene	ug/kg	47	49.4	105	69-139	
1,2,3-Trichlorobenzene	ug/kg	47	48.6	104	70-146	
1,2,3-Trichloropropane	ug/kg	47	49.3	105	69-144	
1,2,4-Trichlorobenzene	ug/kg	47	47.8	102	68-148	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	47	51.1	109	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	47	51.7	110	65-140	
1,2-Dibromoethane (EDB)	ug/kg	47	50.8	108	77-135	
1,2-Dichlorobenzene	ug/kg	47	50.5	107	77-141	
1,2-Dichloroethane	ug/kg	47	50.4	107	65-137	
1,2-Dichloropropane	ug/kg	47	49.9	106	72-136	
1,3,5-Trimethylbenzene	ug/kg	47	51.8	110	76-133	
1,3-Dichlorobenzene	ug/kg	47	51.4	109	74-138	
1,3-Dichloropropane	ug/kg	47	49.3	105	71-139	
1,4-Dichlorobenzene	ug/kg	47	49.5	105	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	940	1010	108	54-154	
2,2-Dichloropropane	ug/kg	47	52.5	112	68-137	
2-Butanone (MEK)	ug/kg	94	109	116	58-147	
2-Chlorotoluene	ug/kg	47	51.4	109	73-139	
2-Hexanone	ug/kg	94	114	121	62-145	
4-Chlorotoluene	ug/kg	47	51.2	109	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	94	113	120	64-149	
Acetone	ug/kg	94	107	114	53-153	
Benzene	ug/kg	47	51.7	110	73-135	
Bromobenzene	ug/kg	47	50.5	108	75-133	
Bromochloromethane	ug/kg	47	49.4	105	73-134	
Bromodichloromethane	ug/kg	47	51.1	109	71-135	
Bromoform	ug/kg	47	52.1	111	66-141	
Bromomethane	ug/kg	47	54.0	115	53-160	
Carbon tetrachloride	ug/kg	47	56.3	120	60-145	
Chlorobenzene	ug/kg	47	48.8	104	78-130	
Chloroethane	ug/kg	47	46.0	98	64-149	
Chloroform	ug/kg	47	50.3	107	70-134	
Chloromethane	ug/kg	47	51.1	109	52-150	
cis-1,2-Dichloroethene	ug/kg	47	50.8	108	70-133	
cis-1,3-Dichloropropene	ug/kg	47	50.5	107	68-134	
Dibromochloromethane	ug/kg	47	51.8	110	71-138	
Dibromomethane	ug/kg	47	51.2	109	74-130	
Dichlorodifluoromethane	ug/kg	47	42.2	90	40-160	
Diisopropyl ether	ug/kg	47	53.6	114	69-141	
Ethylbenzene	ug/kg	47	51.1	109	75-133	
Hexachloro-1,3-butadiene	ug/kg	47	47.7	102	68-143	
Isopropylbenzene (Cumene)	ug/kg	47	54.8	117	76-143	
m&p-Xylene	ug/kg	94	101	108	75-136	
Methyl-tert-butyl ether	ug/kg	47	52.6	112	68-144	
Methylene Chloride	ug/kg	47	52.3	111	45-154	
n-Butylbenzene	ug/kg	47	51.5	110	72-137	
n-Propylbenzene	ug/kg	47	51.5	110	76-136	
Naphthalene	ug/kg	47	52.1	111	68-151	
o-Xylene	ug/kg	47	50.7	108	76-141	
p-Isopropyltoluene	ug/kg	47	51.3	109	76-140	
sec-Butylbenzene	ug/kg	47	53.9	115	79-139	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	47	49.8	106	79-137	
tert-Butylbenzene	ug/kg	47	48.2	103	74-143	
Tetrachloroethene	ug/kg	47	41.7	89	71-138	
Toluene	ug/kg	47	50.6	108	74-131	
trans-1,2-Dichloroethene	ug/kg	47	51.8	110	67-135	
trans-1,3-Dichloropropene	ug/kg	47	50.6	108	65-146	
Trichloroethene	ug/kg	47	53.1	113	67-135	
Trichlorofluoromethane	ug/kg	47	46.2	98	59-144	
Vinyl acetate	ug/kg	94	64.4	69	40-160	F3
Vinyl chloride	ug/kg	47	49.1	104	56-141	
Xylene (Total)	ug/kg	141	152	108	76-137	
1,2-Dichloroethane-d4 (S)	%			107	70-132	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33970 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895012, 92272895013, 92272895014, 92272895015, 92272895016, 92272895017, 92272895018, 92272895019, 92272895020, 92272895021, 92272895022, 92272895023, 92272895025, 92272895027, 92272895028, 92272895029, 92272895030, 92272895031

METHOD BLANK: 1591157 Matrix: Solid
Associated Lab Samples: 92272895012, 92272895013, 92272895014, 92272895015, 92272895016, 92272895017, 92272895018, 92272895019, 92272895020, 92272895021, 92272895022, 92272895023, 92272895025, 92272895027, 92272895028, 92272895029, 92272895030, 92272895031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.8	2.4	10/25/15 14:59	
1,1,1-Trichloroethane	ug/kg	ND	5.8	2.1	10/25/15 14:59	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.8	2.2	10/25/15 14:59	
1,1,2-Trichloroethane	ug/kg	ND	5.8	2.4	10/25/15 14:59	
1,1-Dichloroethane	ug/kg	ND	5.8	1.7	10/25/15 14:59	
1,1-Dichloroethene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
1,1-Dichloropropene	ug/kg	ND	5.8	1.7	10/25/15 14:59	
1,2,3-Trichlorobenzene	ug/kg	ND	5.8	2.5	10/25/15 14:59	
1,2,3-Trichloropropane	ug/kg	ND	5.8	1.8	10/25/15 14:59	
1,2,4-Trichlorobenzene	ug/kg	ND	5.8	1.8	10/25/15 14:59	
1,2,4-Trimethylbenzene	ug/kg	ND	5.8	2.3	10/25/15 14:59	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.8	4.1	10/25/15 14:59	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.8	2.1	10/25/15 14:59	
1,2-Dichlorobenzene	ug/kg	ND	5.8	2.2	10/25/15 14:59	
1,2-Dichloroethane	ug/kg	ND	5.8	2.5	10/25/15 14:59	
1,2-Dichloropropane	ug/kg	ND	5.8	2.0	10/25/15 14:59	
1,3,5-Trimethylbenzene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
1,3-Dichlorobenzene	ug/kg	ND	5.8	2.3	10/25/15 14:59	
1,3-Dichloropropane	ug/kg	ND	5.8	2.2	10/25/15 14:59	
1,4-Dichlorobenzene	ug/kg	ND	5.8	2.0	10/25/15 14:59	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	173	138	10/25/15 14:59	
2,2-Dichloropropane	ug/kg	ND	5.8	2.0	10/25/15 14:59	
2-Butanone (MEK)	ug/kg	ND	115	3.3	10/25/15 14:59	
2-Chlorotoluene	ug/kg	ND	5.8	2.0	10/25/15 14:59	
2-Hexanone	ug/kg	ND	57.6	4.5	10/25/15 14:59	
4-Chlorotoluene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	57.6	4.3	10/25/15 14:59	
Acetone	ug/kg	ND	115	11.5	10/25/15 14:59	
Benzene	ug/kg	ND	5.8	1.8	10/25/15 14:59	
Bromobenzene	ug/kg	ND	5.8	2.3	10/25/15 14:59	
Bromochloromethane	ug/kg	ND	5.8	2.0	10/25/15 14:59	
Bromodichloromethane	ug/kg	ND	5.8	2.2	10/25/15 14:59	
Bromoform	ug/kg	ND	5.8	2.6	10/25/15 14:59	
Bromomethane	ug/kg	ND	11.5	2.9	10/25/15 14:59	
Carbon tetrachloride	ug/kg	ND	5.8	3.0	10/25/15 14:59	
Chlorobenzene	ug/kg	ND	5.8	2.2	10/25/15 14:59	
Chloroethane	ug/kg	ND	11.5	2.8	10/25/15 14:59	
Chloroform	ug/kg	ND	5.8	1.8	10/25/15 14:59	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1591157 Matrix: Solid

Associated Lab Samples: 92272895012, 92272895013, 92272895014, 92272895015, 92272895016, 92272895017, 92272895018, 92272895019, 92272895020, 92272895021, 92272895022, 92272895023, 92272895025, 92272895027, 92272895028, 92272895029, 92272895030, 92272895031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloromethane	ug/kg	ND	11.5	2.8	10/25/15 14:59	
cis-1,2-Dichloroethene	ug/kg	ND	5.8	1.6	10/25/15 14:59	
cis-1,3-Dichloropropene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
Dibromochloromethane	ug/kg	ND	5.8	2.1	10/25/15 14:59	
Dibromomethane	ug/kg	ND	5.8	2.9	10/25/15 14:59	
Dichlorodifluoromethane	ug/kg	ND	11.5	4.1	10/25/15 14:59	
Diisopropyl ether	ug/kg	ND	5.8	2.0	10/25/15 14:59	
Ethylbenzene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
Hexachloro-1,3-butadiene	ug/kg	ND	5.8	2.3	10/25/15 14:59	
Isopropylbenzene (Cumene)	ug/kg	ND	5.8	2.2	10/25/15 14:59	
m&p-Xylene	ug/kg	ND	11.5	4.1	10/25/15 14:59	
Methyl-tert-butyl ether	ug/kg	ND	5.8	1.7	10/25/15 14:59	
Methylene Chloride	ug/kg	ND	23.0	3.5	10/25/15 14:59	
n-Butylbenzene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
n-Propylbenzene	ug/kg	ND	5.8	2.0	10/25/15 14:59	
Naphthalene	ug/kg	ND	5.8	1.4	10/25/15 14:59	
o-Xylene	ug/kg	ND	5.8	2.2	10/25/15 14:59	
p-Isopropyltoluene	ug/kg	ND	5.8	2.0	10/25/15 14:59	
sec-Butylbenzene	ug/kg	ND	5.8	1.8	10/25/15 14:59	
Styrene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
tert-Butylbenzene	ug/kg	ND	5.8	2.3	10/25/15 14:59	
Tetrachloroethene	ug/kg	ND	5.8	2.0	10/25/15 14:59	
Toluene	ug/kg	ND	5.8	2.1	10/25/15 14:59	
trans-1,2-Dichloroethene	ug/kg	ND	5.8	2.2	10/25/15 14:59	
trans-1,3-Dichloropropene	ug/kg	ND	5.8	1.7	10/25/15 14:59	
Trichloroethene	ug/kg	ND	5.8	2.4	10/25/15 14:59	
Trichlorofluoromethane	ug/kg	ND	5.8	2.5	10/25/15 14:59	
Vinyl acetate	ug/kg	ND	57.6	10.1	10/25/15 14:59	
Vinyl chloride	ug/kg	ND	11.5	2.1	10/25/15 14:59	
Xylene (Total)	ug/kg	ND	11.5	4.1	10/25/15 14:59	
1,2-Dichloroethane-d4 (S)	%	110	70-132		10/25/15 14:59	
4-Bromofluorobenzene (S)	%	102	70-130		10/25/15 14:59	
Toluene-d8 (S)	%	101	70-130		10/25/15 14:59	

LABORATORY CONTROL SAMPLE: 1591158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	54.7	61.0	112	74-137	
1,1,1-Trichloroethane	ug/kg	54.7	63.2	115	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	54.7	53.2	97	72-141	
1,1,2-Trichloroethane	ug/kg	54.7	57.8	106	78-138	
1,1-Dichloroethane	ug/kg	54.7	60.4	110	69-134	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	54.7	61.6	113	67-138	
1,1-Dichloropropene	ug/kg	54.7	60.7	111	69-139	
1,2,3-Trichlorobenzene	ug/kg	54.7	55.2	101	70-146	
1,2,3-Trichloropropane	ug/kg	54.7	57.7	105	69-144	
1,2,4-Trichlorobenzene	ug/kg	54.7	55.0	100	68-148	
1,2,4-Trimethylbenzene	ug/kg	54.7	58.9	108	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	54.7	57.3	105	65-140	
1,2-Dibromoethane (EDB)	ug/kg	54.7	60.5	111	77-135	
1,2-Dichlorobenzene	ug/kg	54.7	58.9	108	77-141	
1,2-Dichloroethane	ug/kg	54.7	60.6	111	65-137	
1,2-Dichloropropane	ug/kg	54.7	60.2	110	72-136	
1,3,5-Trimethylbenzene	ug/kg	54.7	59.9	110	76-133	
1,3-Dichlorobenzene	ug/kg	54.7	59.0	108	74-138	
1,3-Dichloropropane	ug/kg	54.7	58.0	106	71-139	
1,4-Dichlorobenzene	ug/kg	54.7	58.2	106	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1090	1140	104	54-154	
2,2-Dichloropropane	ug/kg	54.7	64.5	118	68-137	
2-Butanone (MEK)	ug/kg	109	133	121	58-147	
2-Chlorotoluene	ug/kg	54.7	59.6	109	73-139	
2-Hexanone	ug/kg	109	135	123	62-145	
4-Chlorotoluene	ug/kg	54.7	59.0	108	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	109	135	123	64-149	
Acetone	ug/kg	109	123	112	53-153	
Benzene	ug/kg	54.7	61.5	112	73-135	
Bromobenzene	ug/kg	54.7	59.3	108	75-133	
Bromochloromethane	ug/kg	54.7	58.1	106	73-134	
Bromodichloromethane	ug/kg	54.7	62.3	114	71-135	
Bromoform	ug/kg	54.7	59.5	109	66-141	
Bromomethane	ug/kg	54.7	65.6	120	53-160	
Carbon tetrachloride	ug/kg	54.7	66.6	122	60-145	
Chlorobenzene	ug/kg	54.7	58.3	107	78-130	
Chloroethane	ug/kg	54.7	53.2	97	64-149	
Chloroform	ug/kg	54.7	61.3	112	70-134	
Chloromethane	ug/kg	54.7	61.1	112	52-150	
cis-1,2-Dichloroethene	ug/kg	54.7	61.8	113	70-133	
cis-1,3-Dichloropropene	ug/kg	54.7	60.4	110	68-134	
Dibromochloromethane	ug/kg	54.7	60.7	111	71-138	
Dibromomethane	ug/kg	54.7	61.9	113	74-130	
Dichlorodifluoromethane	ug/kg	54.7	47.0	86	40-160	
Diisopropyl ether	ug/kg	54.7	62.3	114	69-141	
Ethylbenzene	ug/kg	54.7	60.1	110	75-133	
Hexachloro-1,3-butadiene	ug/kg	54.7	53.9	98	68-143	
Isopropylbenzene (Cumene)	ug/kg	54.7	65.2	119	76-143	
m&p-Xylene	ug/kg	109	121	110	75-136	
Methyl-tert-butyl ether	ug/kg	54.7	61.9	113	68-144	
Methylene Chloride	ug/kg	54.7	61.5	112	45-154	
n-Butylbenzene	ug/kg	54.7	58.7	107	72-137	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Propylbenzene	ug/kg	54.7	59.8	109	76-136	
Naphthalene	ug/kg	54.7	58.7	107	68-151	
o-Xylene	ug/kg	54.7	60.1	110	76-141	
p-Isopropyltoluene	ug/kg	54.7	59.0	108	76-140	
sec-Butylbenzene	ug/kg	54.7	62.8	115	79-139	
Styrene	ug/kg	54.7	60.2	110	79-137	
tert-Butylbenzene	ug/kg	54.7	55.1	101	74-143	
Tetrachloroethene	ug/kg	54.7	48.7	89	71-138	
Toluene	ug/kg	54.7	60.8	111	74-131	
trans-1,2-Dichloroethene	ug/kg	54.7	61.9	113	67-135	
trans-1,3-Dichloropropene	ug/kg	54.7	60.7	111	65-146	
Trichloroethene	ug/kg	54.7	63.2	115	67-135	
Trichlorofluoromethane	ug/kg	54.7	61.2	112	59-144	
Vinyl acetate	ug/kg	109	70.4	64	40-160	F3
Vinyl chloride	ug/kg	54.7	57.7	106	56-141	
Xylene (Total)	ug/kg	164	181	110	76-137	
1,2-Dichloroethane-d4 (S)	%			108	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1591244

Parameter	Units	92272895021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	38.6	40.0	103	70-130	
1,1,1-Trichloroethane	ug/kg	ND	38.6	42.7	110	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	38.6	39.1	101	70-130	
1,1,2-Trichloroethane	ug/kg	ND	38.6	39.5	102	70-130	
1,1-Dichloroethane	ug/kg	ND	38.6	43.1	111	70-130	
1,1-Dichloroethene	ug/kg	ND	38.6	41.6	108	49-180	
1,1-Dichloropropene	ug/kg	ND	38.6	42.4	110	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	38.6	37.3	96	70-130	
1,2,3-Trichloropropane	ug/kg	ND	38.6	41.6	107	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	38.6	36.8	95	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	38.6	42.8	111	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	38.6	39.9	103	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	38.6	40.6	105	70-130	
1,2-Dichlorobenzene	ug/kg	ND	38.6	41.0	106	70-130	
1,2-Dichloroethane	ug/kg	ND	38.6	41.7	108	70-130	
1,2-Dichloropropane	ug/kg	ND	38.6	40.8	105	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	38.6	42.7	110	70-130	
1,3-Dichlorobenzene	ug/kg	ND	38.6	42.0	109	70-130	
1,3-Dichloropropane	ug/kg	ND	38.6	43.1	111	70-130	
1,4-Dichlorobenzene	ug/kg	ND	38.6	41.1	106	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	774	865	112	70-130	
2,2-Dichloropropane	ug/kg	ND	38.6	41.3	107	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE SAMPLE: 1591244

Parameter	Units	92272895021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Butanone (MEK)	ug/kg	ND	77.4	94.7J	122	70-130	
2-Chlorotoluene	ug/kg	ND	38.6	43.1	111	70-130	
2-Hexanone	ug/kg	ND	77.4	86.2J	111	70-130	
4-Chlorotoluene	ug/kg	ND	38.6	41.9	108	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	77.4	91.0J	118	70-130	
Acetone	ug/kg	10.6J	77.4	141J	168	70-130	M1
Benzene	ug/kg	ND	38.6	43.0	111	50-166	
Bromobenzene	ug/kg	ND	38.6	42.2	109	70-130	
Bromochloromethane	ug/kg	ND	38.6	44.3	115	70-130	
Bromodichloromethane	ug/kg	ND	38.6	41.8	108	70-130	
Bromoform	ug/kg	ND	38.6	37.0	96	70-130	
Bromomethane	ug/kg	ND	38.6	44.7	116	70-130	
Carbon tetrachloride	ug/kg	ND	38.6	46.1	119	70-130	
Chlorobenzene	ug/kg	ND	38.6	41.3	107	43-169	
Chloroethane	ug/kg	ND	38.6	36.4	94	70-130	
Chloroform	ug/kg	ND	38.6	43.0	111	70-130	
Chloromethane	ug/kg	ND	38.6	41.5	107	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	38.6	42.7	110	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	38.6	40.5	105	70-130	
Dibromochloromethane	ug/kg	ND	38.6	40.8	105	70-130	
Dibromomethane	ug/kg	ND	38.6	42.3	109	70-130	
Dichlorodifluoromethane	ug/kg	ND	38.6	29.8	77	70-130	
Diisopropyl ether	ug/kg	ND	38.6	43.1	111	70-130	
Ethylbenzene	ug/kg	ND	38.6	43.2	112	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	38.6	35.5	92	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	38.6	46.6	120	70-130	
m&p-Xylene	ug/kg	ND	77.4	87.7	113	70-130	
Methyl-tert-butyl ether	ug/kg	ND	38.6	41.6	108	70-130	
Methylene Chloride	ug/kg	10.9J	38.6	82.1	184	70-130	M1
n-Butylbenzene	ug/kg	ND	38.6	42.8	111	70-130	
n-Propylbenzene	ug/kg	ND	38.6	44.3	114	70-130	
Naphthalene	ug/kg	ND	38.6	40.4	104	70-130	
o-Xylene	ug/kg	ND	38.6	42.4	110	70-130	
p-Isopropyltoluene	ug/kg	ND	38.6	42.8	111	70-130	
sec-Butylbenzene	ug/kg	ND	38.6	45.3	117	70-130	
Styrene	ug/kg	ND	38.6	41.4	107	70-130	
tert-Butylbenzene	ug/kg	ND	38.6	40.3	104	70-130	
Tetrachloroethene	ug/kg	ND	38.6	35.8	92	70-130	
Toluene	ug/kg	ND	38.6	43.7	111	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	38.6	42.8	111	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	38.6	39.1	101	70-130	
Trichloroethene	ug/kg	ND	38.6	40.4	104	49-167	
Trichlorofluoromethane	ug/kg	ND	38.6	41.8	108	70-130	
Vinyl acetate	ug/kg	ND	77.4	91.7J	119	70-130	
Vinyl chloride	ug/kg	ND	38.6	39.5	102	70-130	
1,2-Dichloroethane-d4 (S)	%				110	70-132	
4-Bromofluorobenzene (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE SAMPLE: 1591244

Parameter	Units	92272895021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1591243

Parameter	Units	92272895020 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	18.7J	23.3J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1591243

Parameter	Units	92272895020 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	8.6J	3.8J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	123	110	35		
4-Bromofluorobenzene (S)	%	100	99	25		
Toluene-d8 (S)	%	100	99	25		

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33971 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895032, 92272895033, 92272895034, 92272895035, 92272895036, 92272895037, 92272895038, 92272895039, 92272895040

METHOD BLANK: 1591159 Matrix: Solid
Associated Lab Samples: 92272895032, 92272895033, 92272895034, 92272895035, 92272895036, 92272895037, 92272895038, 92272895039, 92272895040

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.8	2.0	10/25/15 14:39	
1,1,1-Trichloroethane	ug/kg	ND	4.8	1.7	10/25/15 14:39	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.8	1.8	10/25/15 14:39	
1,1,2-Trichloroethane	ug/kg	ND	4.8	2.0	10/25/15 14:39	
1,1-Dichloroethane	ug/kg	ND	4.8	1.4	10/25/15 14:39	
1,1-Dichloroethene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
1,1-Dichloropropene	ug/kg	ND	4.8	1.4	10/25/15 14:39	
1,2,3-Trichlorobenzene	ug/kg	ND	4.8	2.1	10/25/15 14:39	
1,2,3-Trichloropropane	ug/kg	ND	4.8	1.5	10/25/15 14:39	
1,2,4-Trichlorobenzene	ug/kg	ND	4.8	1.5	10/25/15 14:39	
1,2,4-Trimethylbenzene	ug/kg	ND	4.8	1.9	10/25/15 14:39	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.8	3.5	10/25/15 14:39	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.8	1.7	10/25/15 14:39	
1,2-Dichlorobenzene	ug/kg	ND	4.8	1.8	10/25/15 14:39	
1,2-Dichloroethane	ug/kg	ND	4.8	2.1	10/25/15 14:39	
1,2-Dichloropropane	ug/kg	ND	4.8	1.6	10/25/15 14:39	
1,3,5-Trimethylbenzene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
1,3-Dichlorobenzene	ug/kg	ND	4.8	1.9	10/25/15 14:39	
1,3-Dichloropropane	ug/kg	ND	4.8	1.8	10/25/15 14:39	
1,4-Dichlorobenzene	ug/kg	ND	4.8	1.6	10/25/15 14:39	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	145	116	10/25/15 14:39	
2,2-Dichloropropane	ug/kg	ND	4.8	1.6	10/25/15 14:39	
2-Butanone (MEK)	ug/kg	ND	96.3	2.8	10/25/15 14:39	
2-Chlorotoluene	ug/kg	ND	4.8	1.6	10/25/15 14:39	
2-Hexanone	ug/kg	ND	48.2	3.8	10/25/15 14:39	
4-Chlorotoluene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	48.2	3.6	10/25/15 14:39	
Acetone	ug/kg	ND	96.3	9.6	10/25/15 14:39	
Benzene	ug/kg	ND	4.8	1.5	10/25/15 14:39	
Bromobenzene	ug/kg	ND	4.8	1.9	10/25/15 14:39	
Bromochloromethane	ug/kg	ND	4.8	1.6	10/25/15 14:39	
Bromodichloromethane	ug/kg	ND	4.8	1.8	10/25/15 14:39	
Bromoform	ug/kg	ND	4.8	2.2	10/25/15 14:39	
Bromomethane	ug/kg	ND	9.6	2.4	10/25/15 14:39	
Carbon tetrachloride	ug/kg	ND	4.8	2.5	10/25/15 14:39	
Chlorobenzene	ug/kg	ND	4.8	1.8	10/25/15 14:39	
Chloroethane	ug/kg	ND	9.6	2.3	10/25/15 14:39	
Chloroform	ug/kg	ND	4.8	1.5	10/25/15 14:39	
Chloromethane	ug/kg	ND	9.6	2.3	10/25/15 14:39	
cis-1,2-Dichloroethene	ug/kg	ND	4.8	1.3	10/25/15 14:39	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1591159 Matrix: Solid

Associated Lab Samples: 92272895032, 92272895033, 92272895034, 92272895035, 92272895036, 92272895037, 92272895038, 92272895039, 92272895040

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
Dibromochloromethane	ug/kg	ND	4.8	1.7	10/25/15 14:39	
Dibromomethane	ug/kg	ND	4.8	2.4	10/25/15 14:39	
Dichlorodifluoromethane	ug/kg	ND	9.6	3.5	10/25/15 14:39	
Diisopropyl ether	ug/kg	ND	4.8	1.6	10/25/15 14:39	
Ethylbenzene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
Hexachloro-1,3-butadiene	ug/kg	ND	4.8	1.9	10/25/15 14:39	
Isopropylbenzene (Cumene)	ug/kg	ND	4.8	1.8	10/25/15 14:39	
m&p-Xylene	ug/kg	ND	9.6	3.5	10/25/15 14:39	
Methyl-tert-butyl ether	ug/kg	ND	4.8	1.4	10/25/15 14:39	
Methylene Chloride	ug/kg	ND	19.3	2.9	10/25/15 14:39	
n-Butylbenzene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
n-Propylbenzene	ug/kg	ND	4.8	1.6	10/25/15 14:39	
Naphthalene	ug/kg	1.4J	4.8	1.2	10/25/15 14:39	
o-Xylene	ug/kg	ND	4.8	1.8	10/25/15 14:39	
p-Isopropyltoluene	ug/kg	ND	4.8	1.6	10/25/15 14:39	
sec-Butylbenzene	ug/kg	ND	4.8	1.5	10/25/15 14:39	
Styrene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
tert-Butylbenzene	ug/kg	ND	4.8	1.9	10/25/15 14:39	
Tetrachloroethene	ug/kg	ND	4.8	1.6	10/25/15 14:39	
Toluene	ug/kg	ND	4.8	1.7	10/25/15 14:39	
trans-1,2-Dichloroethene	ug/kg	ND	4.8	1.8	10/25/15 14:39	
trans-1,3-Dichloropropene	ug/kg	ND	4.8	1.4	10/25/15 14:39	
Trichloroethene	ug/kg	ND	4.8	2.0	10/25/15 14:39	
Trichlorofluoromethane	ug/kg	ND	4.8	2.1	10/25/15 14:39	
Vinyl acetate	ug/kg	ND	48.2	8.5	10/25/15 14:39	
Vinyl chloride	ug/kg	ND	9.6	1.7	10/25/15 14:39	
Xylene (Total)	ug/kg	ND	9.6	3.5	10/25/15 14:39	
1,2-Dichloroethane-d4 (S)	%	106	70-132		10/25/15 14:39	
4-Bromofluorobenzene (S)	%	104	70-130		10/25/15 14:39	
Toluene-d8 (S)	%	98	70-130		10/25/15 14:39	

LABORATORY CONTROL SAMPLE: 1591160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	51.9	54.3	105	74-137	
1,1,1-Trichloroethane	ug/kg	51.9	70.2	135	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	51.9	53.2	103	72-141	
1,1,2-Trichloroethane	ug/kg	51.9	52.8	102	78-138	
1,1-Dichloroethane	ug/kg	51.9	68.6	132	69-134	
1,1-Dichloroethene	ug/kg	51.9	68.2	132	67-138	
1,1-Dichloropropene	ug/kg	51.9	68.2	132	69-139	
1,2,3-Trichlorobenzene	ug/kg	51.9	51.5	99	70-146	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	51.9	53.0	102	69-144	
1,2,4-Trichlorobenzene	ug/kg	51.9	51.1	98	68-148	
1,2,4-Trimethylbenzene	ug/kg	51.9	54.5	105	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	51.9	53.1	102	65-140	
1,2-Dibromoethane (EDB)	ug/kg	51.9	54.1	104	77-135	
1,2-Dichlorobenzene	ug/kg	51.9	52.5	101	77-141	
1,2-Dichloroethane	ug/kg	51.9	68.7	132	65-137	
1,2-Dichloropropane	ug/kg	51.9	53.0	102	72-136	
1,3,5-Trimethylbenzene	ug/kg	51.9	54.9	106	76-133	
1,3-Dichlorobenzene	ug/kg	51.9	54.9	106	74-138	
1,3-Dichloropropane	ug/kg	51.9	54.6	105	71-139	
1,4-Dichlorobenzene	ug/kg	51.9	53.0	102	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1040	1090	105	54-154	
2,2-Dichloropropane	ug/kg	51.9	73.7	142	68-137	L0
2-Butanone (MEK)	ug/kg	104	154	148	58-147	L0
2-Chlorotoluene	ug/kg	51.9	53.7	104	73-139	
2-Hexanone	ug/kg	104	124	119	62-145	
4-Chlorotoluene	ug/kg	51.9	54.0	104	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	104	123	119	64-149	
Acetone	ug/kg	104	143	138	53-153	
Benzene	ug/kg	51.9	54.8	106	73-135	
Bromobenzene	ug/kg	51.9	52.8	102	75-133	
Bromochloromethane	ug/kg	51.9	71.8	139	73-134	L0
Bromodichloromethane	ug/kg	51.9	56.1	108	71-135	
Bromoform	ug/kg	51.9	54.3	105	66-141	
Bromomethane	ug/kg	51.9	69.9	135	53-160	
Carbon tetrachloride	ug/kg	51.9	59.8	115	60-145	
Chlorobenzene	ug/kg	51.9	53.1	102	78-130	
Chloroethane	ug/kg	51.9	57.0	110	64-149	
Chloroform	ug/kg	51.9	67.5	130	70-134	
Chloromethane	ug/kg	51.9	67.7	131	52-150	
cis-1,2-Dichloroethene	ug/kg	51.9	68.9	133	70-133	
cis-1,3-Dichloropropene	ug/kg	51.9	54.9	106	68-134	
Dibromochloromethane	ug/kg	51.9	55.2	106	71-138	
Dibromomethane	ug/kg	51.9	55.4	107	74-130	
Dichlorodifluoromethane	ug/kg	51.9	53.2	103	40-160	
Diisopropyl ether	ug/kg	51.9	70.8	136	69-141	
Ethylbenzene	ug/kg	51.9	55.2	106	75-133	
Hexachloro-1,3-butadiene	ug/kg	51.9	50.9	98	68-143	
Isopropylbenzene (Cumene)	ug/kg	51.9	58.8	113	76-143	
m&p-Xylene	ug/kg	104	110	106	75-136	
Methyl-tert-butyl ether	ug/kg	51.9	69.7	134	68-144	
Methylene Chloride	ug/kg	51.9	68.5	132	45-154	
n-Butylbenzene	ug/kg	51.9	54.4	105	72-137	
n-Propylbenzene	ug/kg	51.9	54.9	106	76-136	
Naphthalene	ug/kg	51.9	54.5	105	68-151	
o-Xylene	ug/kg	51.9	54.3	105	76-141	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	51.9	55.2	106	76-140	
sec-Butylbenzene	ug/kg	51.9	57.0	110	79-139	
Styrene	ug/kg	51.9	55.1	106	79-137	
tert-Butylbenzene	ug/kg	51.9	50.2	97	74-143	
Tetrachloroethene	ug/kg	51.9	45.5	88	71-138	
Toluene	ug/kg	51.9	54.8	106	74-131	
trans-1,2-Dichloroethene	ug/kg	51.9	68.2	131	67-135	
trans-1,3-Dichloropropene	ug/kg	51.9	56.4	109	65-146	
Trichloroethene	ug/kg	51.9	53.7	103	67-135	
Trichlorofluoromethane	ug/kg	51.9	68.3	132	59-144	
Vinyl acetate	ug/kg	104	133	129	40-160	F3
Vinyl chloride	ug/kg	51.9	63.5	122	56-141	
Xylene (Total)	ug/kg	156	164	105	76-137	
1,2-Dichloroethane-d4 (S)	%			134	70-132	S0
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 1591271

Parameter	Units	92272895036 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	19	20.1	106	70-130	
1,1,1-Trichloroethane	ug/kg	ND	19	22.2	117	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	19	22.4	118	70-130	
1,1,2-Trichloroethane	ug/kg	ND	19	21.4	112	70-130	
1,1-Dichloroethane	ug/kg	ND	19	22.2	117	70-130	
1,1-Dichloroethene	ug/kg	ND	19	22.9	120	49-180	
1,1-Dichloropropene	ug/kg	ND	19	22.2	117	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	19	17.4	92	70-130	
1,2,3-Trichloropropane	ug/kg	ND	19	22.4	118	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	19	17.5	92	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	19	21.8	115	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	19	21.2	112	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	19	22.3	117	70-130	
1,2-Dichlorobenzene	ug/kg	ND	19	21.6	113	70-130	
1,2-Dichloroethane	ug/kg	ND	19	22.6	119	70-130	
1,2-Dichloropropane	ug/kg	ND	19	20.9	110	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	19	21.9	115	70-130	
1,3-Dichlorobenzene	ug/kg	ND	19	22.0	116	70-130	
1,3-Dichloropropane	ug/kg	ND	19	21.7	114	70-130	
1,4-Dichlorobenzene	ug/kg	ND	19	21.7	114	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	381	468	123	70-130	
2,2-Dichloropropane	ug/kg	ND	19	21.6	114	70-130	
2-Butanone (MEK)	ug/kg	ND	38.1	57.6J	151	70-130	M0
2-Chlorotoluene	ug/kg	ND	19	22.0	116	70-130	
2-Hexanone	ug/kg	ND	38.1	46.1J	121	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE SAMPLE: 1591271

Parameter	Units	92272895036 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/kg	ND	19	22.2	117	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	38.1	48.6	128	70-130	
Acetone	ug/kg	14.8J	38.1	70.6J	147	70-130	M1
Benzene	ug/kg	ND	19	22.0	116	50-166	
Bromobenzene	ug/kg	ND	19	22.1	116	70-130	
Bromochloromethane	ug/kg	ND	19	23.5	124	70-130	
Bromodichloromethane	ug/kg	ND	19	21.2	111	70-130	
Bromoform	ug/kg	ND	19	20.4	107	70-130	
Bromomethane	ug/kg	ND	19	23.0	121	70-130	
Carbon tetrachloride	ug/kg	ND	19	23.1	122	70-130	
Chlorobenzene	ug/kg	ND	19	21.4	112	43-169	
Chloroethane	ug/kg	ND	19	19.8	104	70-130	
Chloroform	ug/kg	ND	19	22.1	117	70-130	
Chloromethane	ug/kg	ND	19	21.7	114	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	19	22.0	116	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	19	21.2	111	70-130	
Dibromochloromethane	ug/kg	ND	19	21.9	115	70-130	
Dibromomethane	ug/kg	ND	19	23.4	123	70-130	
Dichlorodifluoromethane	ug/kg	ND	19	16.5	87	70-130	
Diisopropyl ether	ug/kg	ND	19	22.6	119	70-130	
Ethylbenzene	ug/kg	ND	19	21.8	115	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	19	12.4	65	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	19	22.7	119	70-130	
m&p-Xylene	ug/kg	ND	38.1	44.5	117	70-130	
Methyl-tert-butyl ether	ug/kg	ND	19	23.1	121	70-130	
Methylene Chloride	ug/kg	16.6J	19	31.3	77	70-130	
n-Butylbenzene	ug/kg	ND	19	20.1	106	70-130	
n-Propylbenzene	ug/kg	ND	19	22.5	118	70-130	
Naphthalene	ug/kg	ND	19	21.0	111	70-130	
o-Xylene	ug/kg	ND	19	20.9	110	70-130	
p-Isopropyltoluene	ug/kg	ND	19	21.0	111	70-130	
sec-Butylbenzene	ug/kg	ND	19	22.2	117	70-130	
Styrene	ug/kg	ND	19	20.9	110	70-130	
tert-Butylbenzene	ug/kg	ND	19	20.1	106	70-130	
Tetrachloroethene	ug/kg	ND	19	18.2	96	70-130	
Toluene	ug/kg	ND	19	22.4	114	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	19	22.5	118	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	19	20.3	107	70-130	
Trichloroethene	ug/kg	ND	19	21.0	110	49-167	
Trichlorofluoromethane	ug/kg	ND	19	21.3	112	70-130	
Vinyl acetate	ug/kg	ND	38.1	44.1J	116	70-130	
Vinyl chloride	ug/kg	ND	19	20.4	108	70-130	
1,2-Dichloroethane-d4 (S)	%				115	70-132	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1591245

Parameter	Units	92272895034 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	56.8J	63.2J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	15.0	9.3	47	30	D6
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1591245

Parameter	Units	92272895034 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	31.0	13.8J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	31.6	15.5	68	30	D6
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	7.6	3.9J		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	137	115	34		
4-Bromofluorobenzene (S)	%	92	92	17		
Toluene-d8 (S)	%	95	95	17		

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33985 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895024, 92272895026

METHOD BLANK: 1591391 | Matrix: Solid
Associated Lab Samples: 92272895024, 92272895026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.4	2.3	10/26/15 11:27	
1,1,1-Trichloroethane	ug/kg	ND	5.4	1.9	10/26/15 11:27	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.4	2.0	10/26/15 11:27	
1,1,2-Trichloroethane	ug/kg	ND	5.4	2.3	10/26/15 11:27	
1,1-Dichloroethane	ug/kg	ND	5.4	1.6	10/26/15 11:27	
1,1-Dichloroethene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
1,1-Dichloropropene	ug/kg	ND	5.4	1.6	10/26/15 11:27	
1,2,3-Trichlorobenzene	ug/kg	ND	5.4	2.4	10/26/15 11:27	
1,2,3-Trichloropropane	ug/kg	ND	5.4	1.7	10/26/15 11:27	
1,2,4-Trichlorobenzene	ug/kg	ND	5.4	1.7	10/26/15 11:27	
1,2,4-Trimethylbenzene	ug/kg	ND	5.4	2.2	10/26/15 11:27	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.4	3.9	10/26/15 11:27	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.4	1.9	10/26/15 11:27	
1,2-Dichlorobenzene	ug/kg	ND	5.4	2.0	10/26/15 11:27	
1,2-Dichloroethane	ug/kg	ND	5.4	2.4	10/26/15 11:27	
1,2-Dichloropropane	ug/kg	ND	5.4	1.8	10/26/15 11:27	
1,3,5-Trimethylbenzene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
1,3-Dichlorobenzene	ug/kg	ND	5.4	2.2	10/26/15 11:27	
1,3-Dichloropropane	ug/kg	ND	5.4	2.0	10/26/15 11:27	
1,4-Dichlorobenzene	ug/kg	ND	5.4	1.8	10/26/15 11:27	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	161	129	10/26/15 11:27	
2,2-Dichloropropane	ug/kg	ND	5.4	1.8	10/26/15 11:27	
2-Butanone (MEK)	ug/kg	ND	108	3.1	10/26/15 11:27	
2-Chlorotoluene	ug/kg	ND	5.4	1.8	10/26/15 11:27	
2-Hexanone	ug/kg	ND	53.8	4.2	10/26/15 11:27	
4-Chlorotoluene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.8	4.0	10/26/15 11:27	
Acetone	ug/kg	ND	108	10.8	10/26/15 11:27	
Benzene	ug/kg	ND	5.4	1.7	10/26/15 11:27	
Bromobenzene	ug/kg	ND	5.4	2.2	10/26/15 11:27	
Bromochloromethane	ug/kg	ND	5.4	1.8	10/26/15 11:27	
Bromodichloromethane	ug/kg	ND	5.4	2.0	10/26/15 11:27	
Bromoform	ug/kg	ND	5.4	2.5	10/26/15 11:27	
Bromomethane	ug/kg	ND	10.8	2.7	10/26/15 11:27	
Carbon tetrachloride	ug/kg	ND	5.4	2.8	10/26/15 11:27	
Chlorobenzene	ug/kg	ND	5.4	2.0	10/26/15 11:27	
Chloroethane	ug/kg	ND	10.8	2.6	10/26/15 11:27	
Chloroform	ug/kg	ND	5.4	1.7	10/26/15 11:27	
Chloromethane	ug/kg	ND	10.8	2.6	10/26/15 11:27	
cis-1,2-Dichloroethene	ug/kg	ND	5.4	1.5	10/26/15 11:27	
cis-1,3-Dichloropropene	ug/kg	ND	5.4	1.9	10/26/15 11:27	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1591391 Matrix: Solid
Associated Lab Samples: 92272895024, 92272895026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.4	1.9	10/26/15 11:27	
Dibromomethane	ug/kg	ND	5.4	2.7	10/26/15 11:27	
Dichlorodifluoromethane	ug/kg	ND	10.8	3.9	10/26/15 11:27	
Diisopropyl ether	ug/kg	ND	5.4	1.8	10/26/15 11:27	
Ethylbenzene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
Hexachloro-1,3-butadiene	ug/kg	ND	5.4	2.2	10/26/15 11:27	
Isopropylbenzene (Cumene)	ug/kg	ND	5.4	2.0	10/26/15 11:27	
m&p-Xylene	ug/kg	ND	10.8	3.9	10/26/15 11:27	
Methyl-tert-butyl ether	ug/kg	ND	5.4	1.6	10/26/15 11:27	
Methylene Chloride	ug/kg	ND	21.5	3.2	10/26/15 11:27	
n-Butylbenzene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
n-Propylbenzene	ug/kg	ND	5.4	1.8	10/26/15 11:27	
Naphthalene	ug/kg	1.6J	5.4	1.3	10/26/15 11:27	
o-Xylene	ug/kg	ND	5.4	2.0	10/26/15 11:27	
p-Isopropyltoluene	ug/kg	ND	5.4	1.8	10/26/15 11:27	
sec-Butylbenzene	ug/kg	ND	5.4	1.7	10/26/15 11:27	
Styrene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
tert-Butylbenzene	ug/kg	ND	5.4	2.2	10/26/15 11:27	
Tetrachloroethene	ug/kg	ND	5.4	1.8	10/26/15 11:27	
Toluene	ug/kg	ND	5.4	1.9	10/26/15 11:27	
trans-1,2-Dichloroethene	ug/kg	ND	5.4	2.0	10/26/15 11:27	
trans-1,3-Dichloropropene	ug/kg	ND	5.4	1.6	10/26/15 11:27	
Trichloroethene	ug/kg	ND	5.4	2.3	10/26/15 11:27	
Trichlorofluoromethane	ug/kg	ND	5.4	2.4	10/26/15 11:27	
Vinyl acetate	ug/kg	ND	53.8	9.5	10/26/15 11:27	
Vinyl chloride	ug/kg	ND	10.8	1.9	10/26/15 11:27	
Xylene (Total)	ug/kg	ND	10.8	3.9	10/26/15 11:27	
1,2-Dichloroethane-d4 (S)	%	113	70-132		10/26/15 11:27	
4-Bromofluorobenzene (S)	%	100	70-130		10/26/15 11:27	
Toluene-d8 (S)	%	99	70-130		10/26/15 11:27	

LABORATORY CONTROL SAMPLE: 1591392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	52.2	57.9	111	74-137	
1,1,1-Trichloroethane	ug/kg	52.2	58.0	111	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	52.2	52.8	101	72-141	
1,1,2-Trichloroethane	ug/kg	52.2	53.5	102	78-138	
1,1-Dichloroethane	ug/kg	52.2	54.8	105	69-134	
1,1-Dichloroethene	ug/kg	52.2	57.7	111	67-138	
1,1-Dichloropropene	ug/kg	52.2	54.6	105	69-139	
1,2,3-Trichlorobenzene	ug/kg	52.2	55.6	106	70-146	
1,2,3-Trichloropropane	ug/kg	52.2	59.1	113	69-144	
1,2,4-Trichlorobenzene	ug/kg	52.2	54.1	104	68-148	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	52.2	56.6	108	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	52.2	60.1	115	65-140	
1,2-Dibromoethane (EDB)	ug/kg	52.2	56.9	109	77-135	
1,2-Dichlorobenzene	ug/kg	52.2	57.4	110	77-141	
1,2-Dichloroethane	ug/kg	52.2	56.9	109	65-137	
1,2-Dichloropropane	ug/kg	52.2	54.2	104	72-136	
1,3,5-Trimethylbenzene	ug/kg	52.2	57.0	109	76-133	
1,3-Dichlorobenzene	ug/kg	52.2	57.0	109	74-138	
1,3-Dichloropropane	ug/kg	52.2	56.2	108	71-139	
1,4-Dichlorobenzene	ug/kg	52.2	57.0	109	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1040	1120	107	54-154	
2,2-Dichloropropane	ug/kg	52.2	57.9	111	68-137	
2-Butanone (MEK)	ug/kg	104	123	118	58-147	
2-Chlorotoluene	ug/kg	52.2	56.5	108	73-139	
2-Hexanone	ug/kg	104	133	128	62-145	
4-Chlorotoluene	ug/kg	52.2	55.8	107	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	104	129	123	64-149	
Acetone	ug/kg	104	114	109	53-153	
Benzene	ug/kg	52.2	56.1	108	73-135	
Bromobenzene	ug/kg	52.2	56.2	108	75-133	
Bromochloromethane	ug/kg	52.2	52.9	101	73-134	
Bromodichloromethane	ug/kg	52.2	56.9	109	71-135	
Bromoform	ug/kg	52.2	57.9	111	66-141	
Bromomethane	ug/kg	52.2	57.8	111	53-160	
Carbon tetrachloride	ug/kg	52.2	62.5	120	60-145	
Chlorobenzene	ug/kg	52.2	54.6	105	78-130	
Chloroethane	ug/kg	52.2	49.0	94	64-149	
Chloroform	ug/kg	52.2	55.8	107	70-134	
Chloromethane	ug/kg	52.2	58.0	111	52-150	
cis-1,2-Dichloroethene	ug/kg	52.2	55.2	106	70-133	
cis-1,3-Dichloropropene	ug/kg	52.2	56.4	108	68-134	
Dibromochloromethane	ug/kg	52.2	58.5	112	71-138	
Dibromomethane	ug/kg	52.2	57.9	111	74-130	
Dichlorodifluoromethane	ug/kg	52.2	48.7	93	40-160	
Diisopropyl ether	ug/kg	52.2	56.6	109	69-141	
Ethylbenzene	ug/kg	52.2	56.5	108	75-133	
Hexachloro-1,3-butadiene	ug/kg	52.2	53.6	103	68-143	
Isopropylbenzene (Cumene)	ug/kg	52.2	60.6	116	76-143	
m&p-Xylene	ug/kg	104	113	108	75-136	
Methyl-tert-butyl ether	ug/kg	52.2	55.4	106	68-144	
Methylene Chloride	ug/kg	52.2	56.5	108	45-154	
n-Butylbenzene	ug/kg	52.2	57.1	109	72-137	
n-Propylbenzene	ug/kg	52.2	57.1	109	76-136	
Naphthalene	ug/kg	52.2	59.6	114	68-151	
o-Xylene	ug/kg	52.2	55.8	107	76-141	
p-Isopropyltoluene	ug/kg	52.2	57.1	109	76-140	
sec-Butylbenzene	ug/kg	52.2	59.6	114	79-139	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591392

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	52.2	56.7	109	79-137	
tert-Butylbenzene	ug/kg	52.2	52.6	101	74-143	
Tetrachloroethene	ug/kg	52.2	46.0	88	71-138	
Toluene	ug/kg	52.2	55.3	106	74-131	
trans-1,2-Dichloroethene	ug/kg	52.2	56.0	107	67-135	
trans-1,3-Dichloropropene	ug/kg	52.2	57.2	110	65-146	
Trichloroethene	ug/kg	52.2	58.1	111	67-135	
Trichlorofluoromethane	ug/kg	52.2	55.1	106	59-144	
Vinyl acetate	ug/kg	104	66.2	63	40-160	F3
Vinyl chloride	ug/kg	52.2	52.9	101	56-141	
Xylene (Total)	ug/kg	157	169	108	76-137	
1,2-Dichloroethane-d4 (S)	%			109	70-132	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1592094

Parameter	Units	92273176001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	26.7	21.5	80	70-130	
1,1,1-Trichloroethane	ug/kg	ND	26.7	24.3	91	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	26.7	22.0	82	70-130	
1,1,2-Trichloroethane	ug/kg	ND	26.7	22.0	82	70-130	
1,1-Dichloroethane	ug/kg	ND	26.7	23.7	88	70-130	
1,1-Dichloroethene	ug/kg	ND	26.7	27.5	103	49-180	
1,1-Dichloropropene	ug/kg	ND	26.7	26.6	99	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	26.7	21.0	78	70-130	
1,2,3-Trichloropropane	ug/kg	ND	26.7	22.2	83	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	26.7	19.9	74	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	26.7	23.3	87	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	26.7	22.3	83	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	26.7	22.3	83	70-130	
1,2-Dichlorobenzene	ug/kg	ND	26.7	22.0	82	70-130	
1,2-Dichloroethane	ug/kg	ND	26.7	22.1	82	70-130	
1,2-Dichloropropane	ug/kg	ND	26.7	22.2	83	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	26.7	23.6	88	70-130	
1,3-Dichlorobenzene	ug/kg	ND	26.7	22.0	82	70-130	
1,3-Dichloropropane	ug/kg	ND	26.7	20.8	78	70-130	
1,4-Dichlorobenzene	ug/kg	ND	26.7	22.2	83	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	535	556	104	70-130	
2,2-Dichloropropane	ug/kg	ND	26.7	24.2	90	70-130	
2-Butanone (MEK)	ug/kg	ND	53.5	56.2J	70	70-130	
2-Chlorotoluene	ug/kg	ND	26.7	22.9	86	70-130	
2-Hexanone	ug/kg	ND	53.5	46.0J	86	70-130	
4-Chlorotoluene	ug/kg	ND	26.7	21.9	82	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.5	48.3J	90	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE SAMPLE: 1592094

Parameter	Units	92273176001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	53.5	59.6J	35	70-130	M1
Benzene	ug/kg	ND	26.7	24.6	92	50-166	
Bromobenzene	ug/kg	ND	26.7	21.9	82	70-130	
Bromochloromethane	ug/kg	ND	26.7	22.1	83	70-130	
Bromodichloromethane	ug/kg	ND	26.7	22.3	83	70-130	
Bromoform	ug/kg	ND	26.7	20.7	77	70-130	
Bromomethane	ug/kg	ND	26.7	26.3	98	70-130	
Carbon tetrachloride	ug/kg	ND	26.7	25.0	93	70-130	
Chlorobenzene	ug/kg	ND	26.7	22.2	83	43-169	
Chloroethane	ug/kg	ND	26.7	19.5	73	70-130	
Chloroform	ug/kg	ND	26.7	23.2	87	70-130	
Chloromethane	ug/kg	ND	26.7	24.0	90	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	26.7	23.8	89	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	26.7	21.5	80	70-130	
Dibromochloromethane	ug/kg	ND	26.7	20.4	76	70-130	
Dibromomethane	ug/kg	ND	26.7	22.4	84	70-130	
Dichlorodifluoromethane	ug/kg	ND	26.7	23.8	89	70-130	
Diisopropyl ether	ug/kg	ND	26.7	24.8	92	70-130	
Ethylbenzene	ug/kg	ND	26.7	23.6	88	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	26.7	23.0	86	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	26.7	26.5	99	70-130	
m&p-Xylene	ug/kg	ND	53.5	46.7	87	70-130	
Methyl-tert-butyl ether	ug/kg	ND	26.7	23.9	89	70-130	
Methylene Chloride	ug/kg	ND	26.7	25.4J	76	70-130	
n-Butylbenzene	ug/kg	ND	26.7	23.7	89	70-130	
n-Propylbenzene	ug/kg	ND	26.7	24.1	90	70-130	
Naphthalene	ug/kg	ND	26.7	23.2	83	70-130	
o-Xylene	ug/kg	ND	26.7	24.0	88	70-130	
p-Isopropyltoluene	ug/kg	ND	26.7	24.4	91	70-130	
sec-Butylbenzene	ug/kg	ND	26.7	25.8	96	70-130	
Styrene	ug/kg	ND	26.7	22.5	84	70-130	
tert-Butylbenzene	ug/kg	ND	26.7	22.4	84	70-130	
Tetrachloroethene	ug/kg	ND	26.7	21.5	80	70-130	
Toluene	ug/kg	ND	26.7	24.8	87	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	26.7	26.1	97	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	26.7	21.2	79	70-130	
Trichloroethene	ug/kg	ND	26.7	22.7	85	49-167	
Trichlorofluoromethane	ug/kg	ND	26.7	18.8	70	70-130	
Vinyl acetate	ug/kg	ND	53.5	48.6J	91	70-130	
Vinyl chloride	ug/kg	ND	26.7	25.1	94	70-130	
1,2-Dichloroethane-d4 (S)	%				109	70-132	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				101	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1592093

Parameter	Units	92272751001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	5.4J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1592093

Parameter	Units	92272751001 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	1.9J	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	1.2J	1.6J		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	111	104	3		
4-Bromofluorobenzene (S)	%	101	98	0		
Toluene-d8 (S)	%	99	98	3		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: MSV/33991 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92272895041, 92272895042, 92272895043, 92272895044, 92272895045, 92272895046, 92272895047

METHOD BLANK: 1591589 Matrix: Solid
Associated Lab Samples: 92272895041, 92272895042, 92272895043, 92272895044, 92272895045, 92272895046, 92272895047

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	2.1	10/26/15 20:21	
1,1,1-Trichloroethane	ug/kg	ND	5.0	1.8	10/26/15 20:21	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	1.9	10/26/15 20:21	
1,1,2-Trichloroethane	ug/kg	ND	5.0	2.1	10/26/15 20:21	
1,1-Dichloroethane	ug/kg	ND	5.0	1.5	10/26/15 20:21	
1,1-Dichloroethene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
1,1-Dichloropropene	ug/kg	ND	5.0	1.5	10/26/15 20:21	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	2.2	10/26/15 20:21	
1,2,3-Trichloropropane	ug/kg	ND	5.0	1.6	10/26/15 20:21	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	1.6	10/26/15 20:21	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	2.0	10/26/15 20:21	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	3.6	10/26/15 20:21	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	1.8	10/26/15 20:21	
1,2-Dichlorobenzene	ug/kg	ND	5.0	1.9	10/26/15 20:21	
1,2-Dichloroethane	ug/kg	ND	5.0	2.2	10/26/15 20:21	
1,2-Dichloropropane	ug/kg	ND	5.0	1.7	10/26/15 20:21	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
1,3-Dichlorobenzene	ug/kg	ND	5.0	2.0	10/26/15 20:21	
1,3-Dichloropropane	ug/kg	ND	5.0	1.9	10/26/15 20:21	
1,4-Dichlorobenzene	ug/kg	ND	5.0	1.7	10/26/15 20:21	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	151	120	10/26/15 20:21	
2,2-Dichloropropane	ug/kg	ND	5.0	1.7	10/26/15 20:21	
2-Butanone (MEK)	ug/kg	ND	100	2.9	10/26/15 20:21	
2-Chlorotoluene	ug/kg	ND	5.0	1.7	10/26/15 20:21	
2-Hexanone	ug/kg	ND	50.2	3.9	10/26/15 20:21	
4-Chlorotoluene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.2	3.7	10/26/15 20:21	
Acetone	ug/kg	10.2J	100	10.0	10/26/15 20:21	
Benzene	ug/kg	ND	5.0	1.6	10/26/15 20:21	
Bromobenzene	ug/kg	ND	5.0	2.0	10/26/15 20:21	
Bromochloromethane	ug/kg	ND	5.0	1.7	10/26/15 20:21	
Bromodichloromethane	ug/kg	ND	5.0	1.9	10/26/15 20:21	
Bromoform	ug/kg	ND	5.0	2.3	10/26/15 20:21	
Bromomethane	ug/kg	ND	10.0	2.5	10/26/15 20:21	
Carbon tetrachloride	ug/kg	ND	5.0	2.6	10/26/15 20:21	
Chlorobenzene	ug/kg	ND	5.0	1.9	10/26/15 20:21	
Chloroethane	ug/kg	ND	10.0	2.4	10/26/15 20:21	
Chloroform	ug/kg	ND	5.0	1.6	10/26/15 20:21	
Chloromethane	ug/kg	ND	10.0	2.4	10/26/15 20:21	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	1.4	10/26/15 20:21	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	1.8	10/26/15 20:21	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

METHOD BLANK: 1591589 Matrix: Solid
Associated Lab Samples: 92272895041, 92272895042, 92272895043, 92272895044, 92272895045, 92272895046, 92272895047

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.0	1.8	10/26/15 20:21	
Dibromomethane	ug/kg	ND	5.0	2.5	10/26/15 20:21	
Dichlorodifluoromethane	ug/kg	ND	10.0	3.6	10/26/15 20:21	
Diisopropyl ether	ug/kg	ND	5.0	1.7	10/26/15 20:21	
Ethylbenzene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	2.0	10/26/15 20:21	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	1.9	10/26/15 20:21	
m&p-Xylene	ug/kg	ND	10.0	3.6	10/26/15 20:21	
Methyl-tert-butyl ether	ug/kg	ND	5.0	1.5	10/26/15 20:21	
Methylene Chloride	ug/kg	ND	20.1	3.0	10/26/15 20:21	
n-Butylbenzene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
n-Propylbenzene	ug/kg	ND	5.0	1.7	10/26/15 20:21	
Naphthalene	ug/kg	ND	5.0	1.2	10/26/15 20:21	
o-Xylene	ug/kg	ND	5.0	1.9	10/26/15 20:21	
p-Isopropyltoluene	ug/kg	ND	5.0	1.7	10/26/15 20:21	
sec-Butylbenzene	ug/kg	ND	5.0	1.6	10/26/15 20:21	
Styrene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
tert-Butylbenzene	ug/kg	ND	5.0	2.0	10/26/15 20:21	
Tetrachloroethene	ug/kg	ND	5.0	1.7	10/26/15 20:21	
Toluene	ug/kg	ND	5.0	1.8	10/26/15 20:21	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	1.9	10/26/15 20:21	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	1.5	10/26/15 20:21	
Trichloroethene	ug/kg	ND	5.0	2.1	10/26/15 20:21	
Trichlorofluoromethane	ug/kg	ND	5.0	2.2	10/26/15 20:21	
Vinyl acetate	ug/kg	ND	50.2	8.8	10/26/15 20:21	
Vinyl chloride	ug/kg	ND	10.0	1.8	10/26/15 20:21	
Xylene (Total)	ug/kg	ND	10.0	3.6	10/26/15 20:21	
1,2-Dichloroethane-d4 (S)	%	161	70-132		10/26/15 20:21	S3
4-Bromofluorobenzene (S)	%	96	70-130		10/26/15 20:21	
Toluene-d8 (S)	%	99	70-130		10/26/15 20:21	

LABORATORY CONTROL SAMPLE: 1591590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	52.1	57.1	110	74-137	
1,1,1-Trichloroethane	ug/kg	52.1	57.3	110	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	52.1	33.5	64	72-141	L0
1,1,2-Trichloroethane	ug/kg	52.1	53.9	104	78-138	
1,1-Dichloroethane	ug/kg	52.1	53.9	103	69-134	
1,1-Dichloroethene	ug/kg	52.1	56.3	108	67-138	
1,1-Dichloropropene	ug/kg	52.1	54.6	105	69-139	
1,2,3-Trichlorobenzene	ug/kg	52.1	49.6	95	70-146	
1,2,3-Trichloropropane	ug/kg	52.1	56.4	108	69-144	
1,2,4-Trichlorobenzene	ug/kg	52.1	46.1	89	68-148	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	52.1	53.2	102	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	52.1	56.3	108	65-140	
1,2-Dibromoethane (EDB)	ug/kg	52.1	57.8	111	77-135	
1,2-Dichlorobenzene	ug/kg	52.1	53.0	102	77-141	
1,2-Dichloroethane	ug/kg	52.1	56.0	108	65-137	
1,2-Dichloropropane	ug/kg	52.1	54.5	105	72-136	
1,3,5-Trimethylbenzene	ug/kg	52.1	54.5	105	76-133	
1,3-Dichlorobenzene	ug/kg	52.1	52.8	101	74-138	
1,3-Dichloropropane	ug/kg	52.1	56.6	109	71-139	
1,4-Dichlorobenzene	ug/kg	52.1	51.8	100	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1040	1090	104	54-154	
2,2-Dichloropropane	ug/kg	52.1	56.3	108	68-137	
2-Butanone (MEK)	ug/kg	104	127	122	58-147	
2-Chlorotoluene	ug/kg	52.1	52.9	102	73-139	
2-Hexanone	ug/kg	104	136	130	62-145	
4-Chlorotoluene	ug/kg	52.1	52.7	101	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	104	128	123	64-149	
Acetone	ug/kg	104	124	119	53-153	
Benzene	ug/kg	52.1	55.3	106	73-135	
Bromobenzene	ug/kg	52.1	53.9	104	75-133	
Bromochloromethane	ug/kg	52.1	59.6	114	73-134	
Bromodichloromethane	ug/kg	52.1	55.2	106	71-135	
Bromoform	ug/kg	52.1	56.2	108	66-141	
Bromomethane	ug/kg	52.1	58.8	113	53-160	
Carbon tetrachloride	ug/kg	52.1	58.4	112	60-145	
Chlorobenzene	ug/kg	52.1	54.5	105	78-130	
Chloroethane	ug/kg	52.1	46.7	90	64-149	
Chloroform	ug/kg	52.1	56.5	109	70-134	
Chloromethane	ug/kg	52.1	55.9	107	52-150	
cis-1,2-Dichloroethene	ug/kg	52.1	56.4	108	70-133	
cis-1,3-Dichloropropene	ug/kg	52.1	54.5	105	68-134	
Dibromochloromethane	ug/kg	52.1	58.1	111	71-138	
Dibromomethane	ug/kg	52.1	56.1	108	74-130	
Dichlorodifluoromethane	ug/kg	52.1	46.5	89	40-160	
Diisopropyl ether	ug/kg	52.1	57.3	110	69-141	
Ethylbenzene	ug/kg	52.1	56.6	109	75-133	
Hexachloro-1,3-butadiene	ug/kg	52.1	48.8	94	68-143	
Isopropylbenzene (Cumene)	ug/kg	52.1	60.3	116	76-143	
m&p-Xylene	ug/kg	104	112	108	75-136	
Methyl-tert-butyl ether	ug/kg	52.1	56.8	109	68-144	
Methylene Chloride	ug/kg	52.1	56.4	108	45-154	
n-Butylbenzene	ug/kg	52.1	51.3	99	72-137	
n-Propylbenzene	ug/kg	52.1	54.0	104	76-136	
Naphthalene	ug/kg	52.1	56.1	108	68-151	
o-Xylene	ug/kg	52.1	56.9	109	76-141	
p-Isopropyltoluene	ug/kg	52.1	53.3	102	76-140	
sec-Butylbenzene	ug/kg	52.1	56.9	109	79-139	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

LABORATORY CONTROL SAMPLE: 1591590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	52.1	56.0	108	79-137	
tert-Butylbenzene	ug/kg	52.1	51.6	99	74-143	
Tetrachloroethene	ug/kg	52.1	44.8	86	71-138	
Toluene	ug/kg	52.1	54.1	104	74-131	
trans-1,2-Dichloroethene	ug/kg	52.1	54.3	104	67-135	
trans-1,3-Dichloropropene	ug/kg	52.1	54.4	104	65-146	
Trichloroethene	ug/kg	52.1	69.9	134	67-135	
Trichlorofluoromethane	ug/kg	52.1	50.0	96	59-144	
Vinyl acetate	ug/kg	104	24.5J	24	40-160	F3,L0
Vinyl chloride	ug/kg	52.1	51.5	99	56-141	
Xylene (Total)	ug/kg	156	169	108	76-137	
1,2-Dichloroethane-d4 (S)	%			112	70-132	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1592108

Parameter	Units	92273201001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	20.3	12.1	60	70-130	M1
1,1,1-Trichloroethane	ug/kg	ND	20.3	14.3	71	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	20.3	13.8	68	70-130	M0
1,1,2-Trichloroethane	ug/kg	ND	20.3	15.0	74	70-130	
1,1-Dichloroethane	ug/kg	ND	20.3	16.0	79	70-130	
1,1-Dichloroethene	ug/kg	ND	20.3	16.7	82	49-180	
1,1-Dichloropropene	ug/kg	ND	20.3	14.3	70	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	20.3	3.0J	15	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	20.3	15.1	75	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	20.3	2.7J	13	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	20.3	7.3	36	70-130	M1
1,2-Dibromo-3-chloropropane	ug/kg	ND	20.3	11.3	56	70-130	M1
1,2-Dibromoethane (EDB)	ug/kg	ND	20.3	14.8	73	70-130	
1,2-Dichlorobenzene	ug/kg	ND	20.3	6.9	34	70-130	M1
1,2-Dichloroethane	ug/kg	ND	20.3	15.5	77	70-130	
1,2-Dichloropropane	ug/kg	ND	20.3	15.5	76	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	20.3	7.6	38	70-130	M1
1,3-Dichlorobenzene	ug/kg	ND	20.3	6.6	33	70-130	M1
1,3-Dichloropropane	ug/kg	ND	20.3	14.7	73	70-130	
1,4-Dichlorobenzene	ug/kg	ND	20.3	6.6	32	70-130	M1
1,4-Dioxane (p-Dioxane)	ug/kg	ND	405	231	57	70-130	M1
2,2-Dichloropropane	ug/kg	ND	20.3	14.8	73	70-130	
2-Butanone (MEK)	ug/kg	ND	40.5	37.3J	92	70-130	
2-Chlorotoluene	ug/kg	ND	20.3	8.2	40	70-130	M1
2-Hexanone	ug/kg	ND	40.5	35.0J	86	70-130	
4-Chlorotoluene	ug/kg	ND	20.3	7.9	39	70-130	M1
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	40.5	35.3J	87	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

MATRIX SPIKE SAMPLE: 1592108

Parameter	Units	92273201001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	40.5	51.1J	48	70-130	M1
Benzene	ug/kg	ND	20.3	15.9	78	50-166	
Bromobenzene	ug/kg	ND	20.3	9.5	47	70-130	M1
Bromochloromethane	ug/kg	ND	20.3	16.4	81	70-130	
Bromodichloromethane	ug/kg	ND	20.3	14.5	71	70-130	
Bromoform	ug/kg	ND	20.3	12.1	60	70-130	M1
Bromomethane	ug/kg	ND	20.3	18.4	91	70-130	
Carbon tetrachloride	ug/kg	ND	20.3	13.3	65	70-130	M1
Chlorobenzene	ug/kg	ND	20.3	11.3	56	43-169	
Chloroethane	ug/kg	ND	20.3	16.1	80	70-130	
Chloroform	ug/kg	ND	20.3	15.8	78	70-130	
Chloromethane	ug/kg	ND	20.3	16.9	84	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	20.3	15.7	78	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	20.3	13.7	68	70-130	M1
Dibromochloromethane	ug/kg	ND	20.3	14.0	69	70-130	M1
Dibromomethane	ug/kg	ND	20.3	16.5	81	70-130	
Dichlorodifluoromethane	ug/kg	ND	20.3	15.4	76	70-130	
Diisopropyl ether	ug/kg	ND	20.3	18.0	89	70-130	
Ethylbenzene	ug/kg	ND	20.3	10.7	53	70-130	M1
Hexachloro-1,3-butadiene	ug/kg	ND	20.3	ND	8	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	20.3	9.5	47	70-130	M1
m&p-Xylene	ug/kg	ND	40.5	21.6	53	70-130	M1
Methyl-tert-butyl ether	ug/kg	ND	20.3	19.2	95	70-130	
Methylene Chloride	ug/kg	ND	20.3	20.1J	44	70-130	M1
n-Butylbenzene	ug/kg	ND	20.3	4.0J	20	70-130	M1
n-Propylbenzene	ug/kg	ND	20.3	7.8	38	70-130	M1
Naphthalene	ug/kg	ND	20.3	5.8	28	70-130	M1
o-Xylene	ug/kg	ND	20.3	10.6	52	70-130	M1
p-Isopropyltoluene	ug/kg	ND	20.3	5.6	28	70-130	M1
sec-Butylbenzene	ug/kg	ND	20.3	6.1	30	70-130	M1
Styrene	ug/kg	ND	20.3	10.4	51	70-130	M1
tert-Butylbenzene	ug/kg	ND	20.3	6.7	33	70-130	M1
Tetrachloroethene	ug/kg	ND	20.3	8.9	44	70-130	M1
Toluene	ug/kg	ND	20.3	13.9	63	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	20.3	18.2	90	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	20.3	12.7	63	70-130	M1
Trichloroethene	ug/kg	ND	20.3	12.9	64	49-167	
Trichlorofluoromethane	ug/kg	ND	20.3	15.0	74	70-130	
Vinyl acetate	ug/kg	ND	40.5	23.8J	59	70-130	M0
Vinyl chloride	ug/kg	ND	20.3	16.7	83	70-130	
1,2-Dichloroethane-d4 (S)	%				107	70-132	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1592107

Parameter	Units	92272895043 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	27.9J	25.3J		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	43.2J	45.3J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

SAMPLE DUPLICATE: 1592107

Parameter	Units	92272895043 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	5.0J	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	8.0	15.1	62	30	D6
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	3.2J		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	135	125	8		
4-Bromofluorobenzene (S)	%	92	90	13		
Toluene-d8 (S)	%	94	93	14		

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: PMST/8490 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272895002, 92272895003, 92272895004, 92272895005, 92272895006, 92272895007, 92272895008

SAMPLE DUPLICATE: 1589758

Parameter	Units	92272557001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.3	11.7	20	25	

SAMPLE DUPLICATE: 1589759

Parameter	Units	92272892003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.5	14.7	5	25	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: PMST/8491 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272895010, 92272895011, 92272895012, 92272895013, 92272895014, 92272895015, 92272895016, 92272895017, 92272895042, 92272895043, 92272895044, 92272895045, 92272895046, 92272895047

SAMPLE DUPLICATE: 1589838

Parameter	Units	92272836001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.8	13.7	1	25	

SAMPLE DUPLICATE: 1589839

Parameter	Units	92272895047 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.5	21.8	3	25	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: PMST/8492 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272895019, 92272895020, 92272895021, 92272895022, 92272895023, 92272895024, 92272895025, 92272895026, 92272895027, 92272895028, 92272895029, 92272895030

SAMPLE DUPLICATE: 1589889

Parameter	Units	92272836007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.6	19.1	8	25	

SAMPLE DUPLICATE: 1589890

Parameter	Units	92272895030 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.0	12.0	9	25	

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QUALITY CONTROL DATA

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

QC Batch: PMST/8493 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92272895031, 92272895032, 92272895033, 92272895034, 92272895036, 92272895037, 92272895038, 92272895039, 92272895040, 92272895041

SAMPLE DUPLICATE: 1589937

Parameter	Units	92272873001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.4	24.2	3	25	

SAMPLE DUPLICATE: 1589938

Parameter	Units	10326119002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.7	7.6	34	25	R1

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QUALIFIERS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
C9	Common Laboratory Contaminant.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
F3	The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S1	Surrogate recovery outside laboratory control limits (confirmed by re-analysis).

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QUALIFIERS

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

ANALYTE QUALIFIERS

S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92272895009	**FB-03**	EPA 8260	MSV/33976		
92272895001	**TRIP BLANK 06**	EPA 8260	MSV/33941		
92272895002	**DS-28 (0-2)**	EPA 8260	MSV/33941		
92272895003	**DS-28 (3-5)**	EPA 8260	MSV/33941		
92272895004	**DS-28 (8-10)**	EPA 8260	MSV/33941		
92272895005	**DS-28 (13-15)**	EPA 8260	MSV/33941		
92272895006	**DS-28 (18-20)**	EPA 8260	MSV/33941		
92272895007	**DS-28 (23-25)**	EPA 8260	MSV/33942		
92272895008	**DS-28 (28-30)**	EPA 8260	MSV/33942		
92272895010	**DS-36A (23-25)**	EPA 8260	MSV/33964		
92272895011	**DS-37 (18-20)**	EPA 8260	MSV/33964		
92272895012	**DS-37 (23-25)**	EPA 8260	MSV/33970		
92272895013	**DS-40 (3-5)**	EPA 8260	MSV/33970		
92272895014	**DS-40 (0-2)**	EPA 8260	MSV/33970		
92272895015	**DS-37 (28-30)**	EPA 8260	MSV/33970		
92272895016	**DS-49 (3-5)**	EPA 8260	MSV/33970		
92272895017	**DS-49 (0-2)**	EPA 8260	MSV/33970		
92272895018	**TRIP BLANK 07**	EPA 8260	MSV/33970		
92272895019	**DS-49 (8-10)**	EPA 8260	MSV/33970		
92272895020	**DS-49 (13-15)**	EPA 8260	MSV/33970		
92272895021	**DS-48 (3-5)**	EPA 8260	MSV/33970		
92272895022	**DS-39 (28-30)**	EPA 8260	MSV/33970		
92272895023	**DS-47 (0-2)**	EPA 8260	MSV/33970		
92272895024	**DS-39 (23-25)**	EPA 8260	MSV/33985		
92272895025	**DS-48 (0-2)**	EPA 8260	MSV/33970		
92272895026	**DS-46 (0-2)**	EPA 8260	MSV/33985		
92272895027	**DS-47 (3-5)**	EPA 8260	MSV/33970		
92272895028	**DS-39 (18-20)**	EPA 8260	MSV/33970		
92272895029	**DS-43 (0-2)**	EPA 8260	MSV/33970		
92272895030	**DS-38 (0-2)**	EPA 8260	MSV/33970		
92272895031	**DS-38 (28-30)**	EPA 8260	MSV/33970		
92272895032	**DS-43 (3-5)**	EPA 8260	MSV/33971		
92272895033	**DS-42 (3-5)**	EPA 8260	MSV/33971		
92272895034	**DS-38 (18-20)**	EPA 8260	MSV/33971		
92272895035	**TRIP BLANK 08**	EPA 8260	MSV/33971		
92272895036	**DS-38 (23-25)**	EPA 8260	MSV/33971		
92272895037	**DS-38 (3-5)**	EPA 8260	MSV/33971		
92272895038	**DS-45 (0-2)**	EPA 8260	MSV/33971		
92272895039	**DS-42 (0-2)**	EPA 8260	MSV/33971		
92272895040	**DS-45 (3-5)**	EPA 8260	MSV/33971		
92272895041	**DS-39 (3-5)**	EPA 8260	MSV/33991		
92272895042	**DS-50 (3-5)**	EPA 8260	MSV/33991		
92272895043	**DS-39 (0-2)**	EPA 8260	MSV/33991		
92272895044	**DS-50 (0-2)**	EPA 8260	MSV/33991		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC-BOONE 6251121001
Pace Project No.: 92272895

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92272895045	**DS-50 (8-10)**	EPA 8260	MSV/33991		
92272895046	**DS-50 (13-15)**	EPA 8260	MSV/33991		
92272895047	**DS-46 (3-5)**	EPA 8260	MSV/33991		
92272895002	**DS-28 (0-2)**	ASTM D2974-87	PMST/8490		
92272895003	**DS-28 (3-5)**	ASTM D2974-87	PMST/8490		
92272895004	**DS-28 (8-10)**	ASTM D2974-87	PMST/8490		
92272895005	**DS-28 (13-15)**	ASTM D2974-87	PMST/8490		
92272895006	**DS-28 (18-20)**	ASTM D2974-87	PMST/8490		
92272895007	**DS-28 (23-25)**	ASTM D2974-87	PMST/8490		
92272895008	**DS-28 (28-30)**	ASTM D2974-87	PMST/8490		
92272895010	**DS-36A (23-25)**	ASTM D2974-87	PMST/8491		
92272895011	**DS-37 (18-20)**	ASTM D2974-87	PMST/8491		
92272895012	**DS-37 (23-25)**	ASTM D2974-87	PMST/8491		
92272895013	**DS-40 (3-5)**	ASTM D2974-87	PMST/8491		
92272895014	**DS-40 (0-2)**	ASTM D2974-87	PMST/8491		
92272895015	**DS-37 (28-30)**	ASTM D2974-87	PMST/8491		
92272895016	**DS-49 (3-5)**	ASTM D2974-87	PMST/8491		
92272895017	**DS-49 (0-2)**	ASTM D2974-87	PMST/8491		
92272895019	**DS-49 (8-10)**	ASTM D2974-87	PMST/8492		
92272895020	**DS-49 (13-15)**	ASTM D2974-87	PMST/8492		
92272895021	**DS-48 (3-5)**	ASTM D2974-87	PMST/8492		
92272895022	**DS-39 (28-30)**	ASTM D2974-87	PMST/8492		
92272895023	**DS-47 (0-2)**	ASTM D2974-87	PMST/8492		
92272895024	**DS-39 (23-25)**	ASTM D2974-87	PMST/8492		
92272895025	**DS-48 (0-2)**	ASTM D2974-87	PMST/8492		
92272895026	**DS-46 (0-2)**	ASTM D2974-87	PMST/8492		
92272895027	**DS-47 (3-5)**	ASTM D2974-87	PMST/8492		
92272895028	**DS-39 (18-20)**	ASTM D2974-87	PMST/8492		
92272895029	**DS-43 (0-2)**	ASTM D2974-87	PMST/8492		
92272895030	**DS-38 (0-2)**	ASTM D2974-87	PMST/8492		
92272895031	**DS-38 (28-30)**	ASTM D2974-87	PMST/8493		
92272895032	**DS-43 (3-5)**	ASTM D2974-87	PMST/8493		
92272895033	**DS-42 (3-5)**	ASTM D2974-87	PMST/8493		
92272895034	**DS-38 (18-20)**	ASTM D2974-87	PMST/8493		
92272895036	**DS-38 (23-25)**	ASTM D2974-87	PMST/8493		
92272895037	**DS-38 (3-5)**	ASTM D2974-87	PMST/8493		
92272895038	**DS-45 (0-2)**	ASTM D2974-87	PMST/8493		
92272895039	**DS-42 (0-2)**	ASTM D2974-87	PMST/8493		
92272895040	**DS-45 (3-5)**	ASTM D2974-87	PMST/8493		
92272895041	**DS-39 (3-5)**	ASTM D2974-87	PMST/8493		
92272895042	**DS-50 (3-5)**	ASTM D2974-87	PMST/8491		
92272895043	**DS-39 (0-2)**	ASTM D2974-87	PMST/8491		
92272895044	**DS-50 (0-2)**	ASTM D2974-87	PMST/8491		
92272895045	**DS-50 (8-10)**	ASTM D2974-87	PMST/8491		
92272895046	**DS-50 (13-15)**	ASTM D2974-87	PMST/8491		
92272895047	**DS-46 (3-5)**	ASTM D2974-87	PMST/8491		

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Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 16, 2016 Page 1 of 2*
	Document Number: **F-CHR-CS-003-rev.16**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Ameo

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1402 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1402** No Correction

Corrected Cooler Temp.: 4.5 °C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: TH 10/22/15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SL/WT		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review:	LSB	**Date:**	10/22/15
SRF Review:	[illegible]	**Date:**	10/22/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92272895

92272895

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 4

1999353

Section A Required Client Information:

Company: AMEC
Address: 37 Villard
Greenville SC 29615
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To: Paul Johnstone
Copy To: Tim Rehn
Purchase Order No.: C012504993
Project Name: RBTC - Boone
Project Number: L6251121001

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #: 6749-1,2

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test (Y/N) 8260 (5035)	8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272895
1	Trip Blank OL	SL	G			10-20	1700		6								X	X			001
2	DS-28 (0-2)						1625		6								X	X			002
3	DS-28 (3-5)						1630		6								X	X			003
4	DS-28 (8-10)						1625		6								X	X			004
5	DS-28 (13-15)						1630		6								X	X			005
6	DS-28 (18-20)						1630		6								X	X			006
7	DS-28 (23-25)						1640		6								X	X			007
8	DS-28 (28-30)						1635		6								X	X			008
9	FB-03	W	G			10-21	1100		3				3						X		009
10	DS-36A (23-25)	SL	G				1115		6								X	X			010
11	DS-37 (18-20)						1120		6								X	X			011
12	DS-37 (23-25)						1130		6								X	X			012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Mauldin	10-21-15	1630	Fedex						
				[illegible] Pace	10/22/15	0945	4.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Mauldin
SIGNATURE of SAMPLER: Lori Mauldin
DATE Signed (MM/DD/YY): 10-21-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Page: 2 of 4

1999354

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AMEC	Report To:	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: / Fax:	Project Name: RBTC - Boone	Pace Project Manager:
Requested Due Date/TAT: STD	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N; Analysis Test: 8260 (5035)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272895
1	DS-40 (3-5)	SL	G			10-21	1130		6								X	X		013
2	DS-40 (0-2)						1125		6								X	X		014
3	DS-37 (28-30)						1135		6								X	X		015
4	DS-49 (3-5)						1135		6								X	X		016
5	DS-49 (0-2)						1135		6								X	X		017
6	TRIP BLANK 07						1200		6								X	X		018
7	DS-49 (8-10)						1140		6								X	X		019
8	DS-49 (13-15)						1140		6								X	X		020
9	DS-43 (3-5')						1215		6								X	X		021
10	DS-39 (28-30)						1215		6								X	X		022
11	DS-47 (0-2)						1220		6								X	X		023
12	DS-39 (23-25)						1220		6								X	X		024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Maulden	10-21-15	1630	FedEx						
				Tyler Holly Pace	10/22/15	0945	4.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Maulden

SIGNATURE of SAMPLER: Lori Maulden — DATE Signed (MM/DD/YY): 10-21-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Page: 3 of 4

1999351

Section A Required Client Information:

Company:	AMEC
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	RBTC - Boone
Project Number:	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: 8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272895
1	DS-48 (0-2)	X	G			10-21	1200		6								X	X		025
2	DS-46 (0-2)						1215		6								X	X		026
3	DS-47 (3-5)						1230		6								X	X		027
4	DS-39 (18-20)						1230		6								X	X		028
5	DS-43 (0-2)						1225		6								X	X		029
6	DS-38 (0-2)						1235		6								X	X		030
7	DS-38 (28-30)						1235		6								X	X		031
8	DS-43 (3-5)						1230		6								X	X		032
9	DS-42 (3-5)						1240		6								X	X		033
10	DS-38 (18-20)						1240		6								X	X		034
11	Trip Blank 08						1245		6								X	X		035
12	DS-38 (23-25)						1235		6								X	X		036

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Mauldin	10-21-15	1630	Fedex						
				Alyssa Hardy pace	10-22-15	0945	4.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Mauldin

SIGNATURE of SAMPLER: Lori Mauldin DATE Signed (MM/DD/YY): 10-21-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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Page: 4 of 4

1999352

Section A Required Client Information:

Company: AMEC
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: RBTC - Boone
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other (5035)	Analysis Test: 8260B (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92272895
1	DS-38 (3-5)	SL	G			10-21	1245		6								X	X		037
2	DS-45 (0-2)						1250		6								X	X		038
3	DS-42 (0-2)						1250		6								X	X		039
4	DS-45 (3-5)						1255		6								X	X		040
5	DS-39 (3-5)						1255		6								X	X		041
6	DS-50 (3-5)						1300		6								X	X		042
7	DS-39 (0-2)						1300		6								X	X		043 SG 10/22/15
8	DS-50 (0-2)						1240		6								X	X		~~043~~ 044
9	DS-50 (8-10)						1310		6								X	X		045
10	DS-50 (13-15)						1305		6								X	X		046
11	DS-46 (3-5)						1245		6								X	X		047
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Lori Mawlin	10-21-15	1630	FedEx						
				[illegible] Pace	10/22/15	0945	4.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Lori Mawlin

SIGNATURE of SAMPLER: Lori Mawlin

DATE Signed (MM/DD/YY): 10-21-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

December 28, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on December 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92279773001	**TB-01**	Solid	12/14/15 08:30	12/15/15 10:00
92279773002	**FB-01**	Water	12/14/15 10:00	12/15/15 10:00
92279773003	**DS-28A (0-2)**	Solid	12/14/15 10:30	12/15/15 10:00
92279773004	**DS-28A (3-5)**	Solid	12/14/15 10:40	12/15/15 10:00
92279773005	**DS-28A (8-10)**	Solid	12/14/15 10:50	12/15/15 10:00
92279773006	**DS-19A (0-2)**	Solid	12/14/15 11:00	12/15/15 10:00
92279773007	**DS-19A (3-5)**	Solid	12/14/15 11:15	12/15/15 10:00
92279773008	**DS-19A (8-10)**	Solid	12/14/15 11:25	12/15/15 10:00
92279773009	**DS-28A (13-15)**	Solid	12/14/15 11:30	12/15/15 10:00
92279773010	**TB-02**	Solid	12/14/15 11:40	12/15/15 10:00
92279773011	**DS-28A (28-30)**	Solid	12/14/15 11:35	12/15/15 10:00
92279773012	**DS-28A (23-25)**	Solid	12/14/15 11:45	12/15/15 10:00
92279773013	**DS-19A (23-25)**	Solid	12/14/15 11:50	12/15/15 10:00
92279773014	**DS-19A (28-30)**	Solid	12/14/15 11:55	12/15/15 10:00
92279773015	**DS-19A (13-15)**	Solid	12/14/15 12:00	12/15/15 10:00
92279773016	**DS-28A (18-20)**	Solid	12/14/15 12:10	12/15/15 10:00
92279773017	**DS-19A (18-20)**	Solid	12/14/15 12:10	12/15/15 10:00
92279773018	**TB-03**	Solid	12/14/15 12:20	12/15/15 10:00
92279773019	**DS-28-A (30-32)**	Solid	12/14/15 12:30	12/15/15 10:00
92279773020	**DS-20-A (8-10)**	Solid	12/14/15 12:35	12/15/15 10:00
92279773021	**DS-20-A (18-20)**	Solid	12/14/15 12:45	12/15/15 10:00
92279773022	**DS-20-A (0-2)**	Solid	12/14/15 12:45	12/15/15 10:00
92279773023	**DS-20-A (13-15)**	Solid	12/14/15 12:55	12/15/15 10:00
92279773024	**DS-20-A (3-5)**	Solid	12/14/15 12:55	12/15/15 10:00
92279773025	**DS-20A (28-30)**	Solid	12/14/15 13:05	12/15/15 10:00
92279773026	**DS-20A (23-25)**	Solid	12/14/15 13:05	12/15/15 10:00
92279773027	**TB-04**	Solid	12/14/15 13:15	12/15/15 10:00
92279773028	**DS-25A (23-25)**	Solid	12/14/15 13:15	12/15/15 10:00
92279773029	**DS-25A (18-20)**	Solid	12/14/15 13:20	12/15/15 10:00
92279773030	**DS-25A (13-15)**	Solid	12/14/15 13:30	12/15/15 10:00
92279773031	**DS-25A (28-30)**	Solid	12/14/15 13:30	12/15/15 10:00
92279773032	**DS-25A (8-10)**	Solid	12/14/15 13:40	12/15/15 10:00
92279773033	**DS-25A (0-2)**	Solid	12/14/15 13:40	12/15/15 10:00
92279773034	**TB-05**	Solid	12/14/15 13:50	12/15/15 10:00
92279773035	**DS-25A (3-5)**	Solid	12/14/15 13:50	12/15/15 10:00
92279773036	**DS-51 (0-2)**	Solid	12/14/15 14:35	12/15/15 10:00
92279773037	**DS-51 (3-5)**	Solid	12/14/15 14:40	12/15/15 10:00

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SAMPLE SUMMARY

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92279773038	**DS-51 (13-15)**	Solid	12/14/15 14:45	12/15/15 10:00
92279773039	**DS-51 (8-10)**	Solid	12/14/15 14:45	12/15/15 10:00
92279773040	**DS-52 (13-15)**	Solid	12/14/15 14:50	12/15/15 10:00
92279773041	**DS-52 (0-2)**	Solid	12/14/15 14:50	12/15/15 10:00
92279773042	**DS-52 (8-10)**	Solid	12/14/15 14:50	12/15/15 10:00
92279773043	**DS-52 (3-5)**	Solid	12/14/15 15:00	12/15/15 10:00
92279773044	**DS-53 (13-15)**	Solid	12/14/15 15:05	12/15/15 10:00
92279773045	**DS-53 (8-10)**	Solid	12/14/15 15:10	12/15/15 10:00
92279773046	**DS-53 (0-2)**	Solid	12/14/15 15:35	12/15/15 10:00
92279773047	**DS-53 (3-5)**	Solid	12/14/15 15:40	12/15/15 10:00

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92279773001	**TB-01**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
92279773002	**FB-01**	EPA 8260	NB	63	PASI-C
92279773003	**DS-28A (0-2)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773004	**DS-28A (3-5)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773005	**DS-28A (8-10)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773006	**DS-19A (0-2)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773007	**DS-19A (3-5)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773008	**DS-19A (8-10)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773009	**DS-28A (13-15)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773010	**TB-02**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
92279773011	**DS-28A (28-30)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773012	**DS-28A (23-25)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773013	**DS-19A (23-25)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773014	**DS-19A (28-30)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	KDF	1	PASI-C
92279773015	**DS-19A (13-15)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773016	**DS-28A (18-20)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773017	**DS-19A (18-20)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773018	**TB-03**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
92279773019	**DS-28-A (30-32)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773020	**DS-20-A (8-10)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773021	**DS-20-A (18-20)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773022	**DS-20-A (0-2)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773023	**DS-20-A (13-15)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773024	**DS-20-A (3-5)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773025	**DS-20A (28-30)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773026	**DS-20A (23-25)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773027	**TB-04**	EPA 8260B Mod.	DLK	3	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	DLK	71	PASI-C
92279773028	**DS-25A (23-25)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773029	**DS-25A (18-20)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773030	**DS-25A (13-15)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773031	**DS-25A (28-30)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773032	**DS-25A (8-10)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773033	**DS-25A (0-2)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773034	**TB-05**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
92279773035	**DS-25A (3-5)**	EPA 8260B Mod.	DLK	3	PASI-C
		EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773036	**DS-51 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773037	**DS-51 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773038	**DS-51 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773039	**DS-51 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773040	**DS-52 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773041	**DS-52 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773042	**DS-52 (8-10)**	EPA 8260	DLK	71	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	KDF	1	PASI-C
92279773043	**DS-52 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773044	**DS-53 (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773045	**DS-53 (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773046	**DS-53 (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92279773047	**DS-53 (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM Soil
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

General Information:
34 samples were analyzed for EPA 8260B Mod.. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/34775

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DUP (Lab ID: 1633453)
  - Toluene-d8 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/34766

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DS-28A (13-15) (Lab ID: 92279773009)
  - 1,2-Dichloroethane-d4 (S)

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260B Mod.**
Description: 8260 MSV SIM Soil
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

Analyte Comments:

QC Batch: MSV/34766

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DS-28A (8-10) (Lab ID: 92279773005)
  - 1,2-Dichloroethane-d4 (S)

QC Batch: MSV/34775

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DS-25A (13-15) (Lab ID: 92279773030)
  - 1,2-Dichloroethane-d4 (S)
- DS-25A (8-10) (Lab ID: 92279773032)
  - 1,2-Dichloroethane-d4 (S)
- DS-28-A (30-32) (Lab ID: 92279773019)
  - 1,2-Dichloroethane-d4 (S)

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/34795

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92279987001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1633891)
  - Bromomethane
  - Carbon tetrachloride
  - Hexachloro-1,3-butadiene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

General Information:
46 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/34797

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- DS-20-A (8-10) (Lab ID: 92279773020)
  - 1,2-Dichloroethane-d4 (S)

QC Batch: MSV/34798

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- DUP (Lab ID: 1633999)
  - 1,2-Dichloroethane-d4 (S)

QC Batch: MSV/34817

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- DS-52 (3-5) (Lab ID: 92279773043)
  - 1,2-Dichloroethane-d4 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: MSV/34735

B: Analyte was detected in the associated method blank.
- BLANK for HBN 293997 [MSV/3473 (Lab ID: 1630372)
  - Methylene Chloride

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

QC Batch: MSV/34735

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1630373)
  - Vinyl acetate

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/34759

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92279930018

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1632940)
  - Acetone
  - Methylene Chloride

QC Batch: MSV/34798

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92279773035

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1633998)
  - 1,1,2,2-Tetrachloroethane
  - 1,1-Dichloroethane
  - 2-Butanone (MEK)
  - Acetone
  - Methylene Chloride
  - Tetrachloroethene
  - Vinyl acetate

QC Batch: MSV/34817

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92279773044

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1634158)
  - 1,1,2,2-Tetrachloroethane
  - 1,2,3-Trichloropropane
  - 1,2-Dibromo-3-chloropropane
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
  - Hexachloro-1,3-butadiene
  - Methyl-tert-butyl ether
  - Styrene
  - Vinyl acetate

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

QC Batch: MSV/34834

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92279398001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1635100)
  - 1,1,2,2-Tetrachloroethane
  - 1,2,3-Trichloropropane
  - 1,2-Dibromo-3-chloropropane
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Acetone
  - Methyl-tert-butyl ether
  - Methylene Chloride
  - Naphthalene
  - Vinyl acetate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/34735

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.

- DS-28A (0-2) (Lab ID: 92279773003)
  - Toluene-d8 (S)

QC Batch: MSV/34797

C9: Common Laboratory Contaminant.

- DS-20-A (13-15) (Lab ID: 92279773023)
  - Methylene Chloride
- DS-20-A (18-20) (Lab ID: 92279773021)
  - Methylene Chloride
- DS-20-A (8-10) (Lab ID: 92279773020)
  - Methylene Chloride
- DS-20A (28-30) (Lab ID: 92279773025)
  - Methylene Chloride
- DS-25A (18-20) (Lab ID: 92279773029)
  - Methylene Chloride
- DS-28A (28-30) (Lab ID: 92279773011)
  - Methylene Chloride
- DUP (Lab ID: 1634000)
  - Methylene Chloride

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PROJECT NARRATIVE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: December 28, 2015

Analyte Comments:

QC Batch: MSV/34798

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
- DS-25A (28-30) (Lab ID: 92279773031)
  - Toluene-d8 (S)

C9: Common Laboratory Contaminant.
- DS-25A (3-5) (Lab ID: 92279773035)
  - Methylene Chloride
- DUP (Lab ID: 1633999)
  - Methylene Chloride

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- DS-25A (13-15) (Lab ID: 92279773030)
  - Toluene-d8 (S)

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- DS-51 (0-2) (Lab ID: 92279773036)
  - Acetone

QC Batch: MSV/34817

C0: Result confirmed by second analysis.
- TB-04 (Lab ID: 92279773027)
  - Methylene Chloride

C9: Common Laboratory Contaminant.
- DS-25A (23-25) (Lab ID: 92279773028)
  - Methylene Chloride
- DS-28-A (30-32) (Lab ID: 92279773019)
  - Methylene Chloride
- DS-52 (0-2) (Lab ID: 92279773041)
  - Methylene Chloride
- DS-52 (3-5) (Lab ID: 92279773043)
  - Methylene Chloride
- DS-52 (8-10) (Lab ID: 92279773042)
  - Methylene Chloride
- TB-04 (Lab ID: 92279773027)
  - Methylene Chloride

QC Batch: MSV/34834

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
- DS-53 (0-2) (Lab ID: 92279773046)
  - Toluene-d8 (S)

C9: Common Laboratory Contaminant.
- DUP (Lab ID: 1635099)
  - Methylene Chloride

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-01 **Lab ID: 92279773001** Collected: 12/14/15 08:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.0	10.0	1		12/17/15 21:03	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%	50-150		1		12/17/15 21:03	17060-07-0	
Toluene-d8 (S)	85	%	50-150		1		12/17/15 21:03	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		12/17/15 21:32	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/17/15 21:32	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/17/15 21:32	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/17/15 21:32	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/17/15 21:32	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		12/17/15 21:32	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/17/15 21:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/17/15 21:32	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/17/15 21:32	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/17/15 21:32	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/17/15 21:32	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/17/15 21:32	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/17/15 21:32	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/17/15 21:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/17/15 21:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/17/15 21:32	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/17/15 21:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/17/15 21:32	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/17/15 21:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/17/15 21:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/17/15 21:32	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/17/15 21:32	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-01 **Lab ID: 92279773001** Collected: 12/14/15 08:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/17/15 21:32	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/17/15 21:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	99-87-6	
Methylene Chloride	**15.1J**	ug/kg	20.0	3.0	1		12/17/15 21:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/17/15 21:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/17/15 21:32	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/17/15 21:32	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/17/15 21:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/17/15 21:32	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/17/15 21:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/17/15 21:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/17/15 21:32	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/17/15 21:32	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/17/15 21:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/17/15 21:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/17/15 21:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/17/15 21:32	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/17/15 21:32	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/17/15 21:32	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/17/15 21:32	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/17/15 21:32	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/17/15 21:32	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/17/15 21:32	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/17/15 21:32	460-00-4	
1,2-Dichloroethane-d4 (S)	124	%	70-132		1		12/17/15 21:32	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: FB-01 **Lab ID: 92279773002** Collected: 12/14/15 10:00 Received: 12/15/15 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/19/15 13:20	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/15 13:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/19/15 13:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/19/15 13:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/15 13:20	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/19/15 13:20	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/19/15 13:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/19/15 13:20	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/15 13:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/19/15 13:20	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/19/15 13:20	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/19/15 13:20	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/15 13:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/19/15 13:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/19/15 13:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/19/15 13:20	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/19/15 13:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/15 13:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/19/15 13:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/19/15 13:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/19/15 13:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/15 13:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/19/15 13:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/19/15 13:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/19/15 13:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/19/15 13:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/19/15 13:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/19/15 13:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/15 13:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/19/15 13:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/19/15 13:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/19/15 13:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/15 13:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/15 13:20	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		12/19/15 13:20	108-20-3	
Ethylbenzene	**0.35J**	ug/L	1.0	0.30	1		12/19/15 13:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/19/15 13:20	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/19/15 13:20	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/19/15 13:20	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/19/15 13:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/19/15 13:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		12/19/15 13:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		12/19/15 13:20	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		12/19/15 13:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/19/15 13:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/19/15 13:20	79-34-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: FB-01 **Lab ID: 92279773002** Collected: 12/14/15 10:00 Received: 12/15/15 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/15 13:20	127-18-4	
Toluene	**1.9**	ug/L	1.0	0.26	1		12/19/15 13:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/15 13:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/19/15 13:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/15 13:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/15 13:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/15 13:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/15 13:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/15 13:20	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/19/15 13:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/15 13:20	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/15 13:20	1330-20-7	
m&p-Xylene	**1.4J**	ug/L	2.0	0.66	1		12/19/15 13:20	179601-23-1	
o-Xylene	**0.86J**	ug/L	1.0	0.23	1		12/19/15 13:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	114	%	70-130		1		12/19/15 13:20	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		12/19/15 13:20	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		12/19/15 13:20	2037-26-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (0-2) **Lab ID: 92279773003** Collected: 12/14/15 10:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	8.9	8.9	1		12/17/15 21:24	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	127	%	50-150		1		12/17/15 21:24	17060-07-0	
Toluene-d8 (S)	109	%	50-150		1		12/17/15 21:24	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.7J**	ug/kg	103	10.3	1		12/17/15 05:39	67-64-1	
Benzene	ND	ug/kg	5.1	1.6	1		12/17/15 05:39	71-43-2	
Bromobenzene	ND	ug/kg	5.1	2.1	1		12/17/15 05:39	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	75-27-4	
Bromoform	ND	ug/kg	5.1	2.4	1		12/17/15 05:39	75-25-2	
Bromomethane	ND	ug/kg	10.3	2.6	1		12/17/15 05:39	74-83-9	
2-Butanone (MEK)	ND	ug/kg	103	3.0	1		12/17/15 05:39	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1.6	1		12/17/15 05:39	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	2.1	1		12/17/15 05:39	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	2.7	1		12/17/15 05:39	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	108-90-7	
Chloroethane	ND	ug/kg	10.3	2.5	1		12/17/15 05:39	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		12/17/15 05:39	67-66-3	
Chloromethane	ND	ug/kg	10.3	2.5	1		12/17/15 05:39	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.7	1		12/17/15 05:39	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	106-93-4	
Dibromomethane	ND	ug/kg	5.1	2.6	1		12/17/15 05:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.1	1		12/17/15 05:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.3	3.7	1		12/17/15 05:39	75-71-8	
1,1-Dichloroethane	**51.8**	ug/kg	5.1	1.5	1		12/17/15 05:39	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.3	1		12/17/15 05:39	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	75-35-4	
cis-1,2-Dichloroethene	**41.6**	ug/kg	5.1	1.4	1		12/17/15 05:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/17/15 05:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/17/15 05:39	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	154	124	1		12/17/15 05:39	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (0-2) **Lab ID: 92279773003** Collected: 12/14/15 10:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	2.1	1		12/17/15 05:39	87-68-3	
2-Hexanone	ND	ug/kg	51.5	4.0	1		12/17/15 05:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	99-87-6	
Methylene Chloride	**9.4J**	ug/kg	20.6	3.1	1		12/17/15 05:39	75-09-2	B
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.5	3.8	1		12/17/15 05:39	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		12/17/15 05:39	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1.2	1		12/17/15 05:39	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1.8	1		12/17/15 05:39	103-65-1	
Styrene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	2.2	1		12/17/15 05:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	79-34-5	
Tetrachloroethene	**10.7**	ug/kg	5.1	1.8	1		12/17/15 05:39	127-18-4	
Toluene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.3	1		12/17/15 05:39	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		12/17/15 05:39	120-82-1	
1,1,1-Trichloroethane	**164**	ug/kg	5.1	1.9	1		12/17/15 05:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.2	1		12/17/15 05:39	79-00-5	
Trichloroethene	**2.9J**	ug/kg	5.1	2.2	1		12/17/15 05:39	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.3	1		12/17/15 05:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1.6	1		12/17/15 05:39	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	2.1	1		12/17/15 05:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1.9	1		12/17/15 05:39	108-67-8	
Vinyl acetate	ND	ug/kg	51.5	9.1	1		12/17/15 05:39	108-05-4	L2
Vinyl chloride	ND	ug/kg	10.3	1.9	1		12/17/15 05:39	75-01-4	
Xylene (Total)	ND	ug/kg	10.3	3.7	1		12/17/15 05:39	1330-20-7	
m&p-Xylene	ND	ug/kg	10.3	3.7	1		12/17/15 05:39	179601-23-1	
o-Xylene	ND	ug/kg	5.1	2.0	1		12/17/15 05:39	95-47-6	
Surrogates									
Toluene-d8 (S)	92	%	70-130		1		12/17/15 05:39	2037-26-5	1g
4-Bromofluorobenzene (S)	85	%	70-130		1		12/17/15 05:39	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-132		1		12/17/15 05:39	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.5**	%	0.10	0.10	1		12/16/15 06:38		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (3-5) **Lab ID: 92279773004** Collected: 12/14/15 10:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	13.0	13.0	1		12/17/15 21:44	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	84	%	50-150		1		12/17/15 21:44	17060-07-0	
Toluene-d8 (S)	73	%	50-150		1		12/17/15 21:44	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	118	11.8	1		12/17/15 05:59	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		12/17/15 05:59	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.4	1		12/17/15 05:59	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		12/17/15 05:59	75-25-2	
Bromomethane	ND	ug/kg	11.8	2.9	1		12/17/15 05:59	74-83-9	
2-Butanone (MEK)	ND	ug/kg	118	3.4	1		12/17/15 05:59	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		12/17/15 05:59	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.4	1		12/17/15 05:59	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		12/17/15 05:59	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	108-90-7	
Chloroethane	ND	ug/kg	11.8	2.8	1		12/17/15 05:59	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		12/17/15 05:59	67-66-3	
Chloromethane	ND	ug/kg	11.8	2.8	1		12/17/15 05:59	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		12/17/15 05:59	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		12/17/15 05:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.4	1		12/17/15 05:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.8	4.2	1		12/17/15 05:59	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		12/17/15 05:59	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		12/17/15 05:59	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.6	1		12/17/15 05:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/17/15 05:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/17/15 05:59	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	177	141	1		12/17/15 05:59	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (3-5) **Lab ID: 92279773004** Collected: 12/14/15 10:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.4	1		12/17/15 05:59	87-68-3	
2-Hexanone	ND	ug/kg	58.9	4.6	1		12/17/15 05:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	99-87-6	
Methylene Chloride	**11.3J**	ug/kg	23.6	3.5	1		12/17/15 05:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.9	4.4	1		12/17/15 05:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		12/17/15 05:59	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		12/17/15 05:59	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		12/17/15 05:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		12/17/15 05:59	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		12/17/15 05:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		12/17/15 05:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		12/17/15 05:59	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		12/17/15 05:59	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		12/17/15 05:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		12/17/15 05:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.4	1		12/17/15 05:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		12/17/15 05:59	108-67-8	
Vinyl acetate	ND	ug/kg	58.9	10.4	1		12/17/15 05:59	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.8	2.1	1		12/17/15 05:59	75-01-4	
Xylene (Total)	ND	ug/kg	11.8	4.2	1		12/17/15 05:59	1330-20-7	
m&p-Xylene	ND	ug/kg	11.8	4.2	1		12/17/15 05:59	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		12/17/15 05:59	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/17/15 05:59	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/17/15 05:59	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		12/17/15 05:59	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.5**	%	0.10	0.10	1		12/16/15 06:38		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (8-10) **Lab ID: 92279773005** Collected: 12/14/15 10:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	302	302	25		12/17/15 22:05	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	90	%	50-150		25		12/17/15 22:05	17060-07-0	D3
Toluene-d8 (S)	120	%	50-150		25		12/17/15 22:05	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	30200	3020	250		12/17/15 21:52	67-64-1	
Benzene	ND	ug/kg	1510	483	250		12/17/15 21:52	71-43-2	
Bromobenzene	ND	ug/kg	1510	603	250		12/17/15 21:52	108-86-1	
Bromochloromethane	ND	ug/kg	1510	513	250		12/17/15 21:52	74-97-5	
Bromodichloromethane	ND	ug/kg	1510	573	250		12/17/15 21:52	75-27-4	
Bromoform	ND	ug/kg	1510	694	250		12/17/15 21:52	75-25-2	
Bromomethane	ND	ug/kg	3020	754	250		12/17/15 21:52	74-83-9	
2-Butanone (MEK)	ND	ug/kg	30200	875	250		12/17/15 21:52	78-93-3	
n-Butylbenzene	ND	ug/kg	1510	543	250		12/17/15 21:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	1510	483	250		12/17/15 21:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	1510	603	250		12/17/15 21:52	98-06-6	
Carbon tetrachloride	ND	ug/kg	1510	784	250		12/17/15 21:52	56-23-5	
Chlorobenzene	ND	ug/kg	1510	573	250		12/17/15 21:52	108-90-7	
Chloroethane	ND	ug/kg	3020	724	250		12/17/15 21:52	75-00-3	
Chloroform	ND	ug/kg	1510	483	250		12/17/15 21:52	67-66-3	
Chloromethane	ND	ug/kg	3020	724	250		12/17/15 21:52	74-87-3	
2-Chlorotoluene	ND	ug/kg	1510	513	250		12/17/15 21:52	95-49-8	
4-Chlorotoluene	ND	ug/kg	1510	543	250		12/17/15 21:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	1510	1090	250		12/17/15 21:52	96-12-8	
Dibromochloromethane	ND	ug/kg	1510	543	250		12/17/15 21:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	1510	543	250		12/17/15 21:52	106-93-4	
Dibromomethane	ND	ug/kg	1510	754	250		12/17/15 21:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	1510	573	250		12/17/15 21:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	1510	603	250		12/17/15 21:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	1510	513	250		12/17/15 21:52	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	3020	1090	250		12/17/15 21:52	75-71-8	
1,1-Dichloroethane	ND	ug/kg	1510	452	250		12/17/15 21:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	1510	664	250		12/17/15 21:52	107-06-2	
1,1-Dichloroethene	ND	ug/kg	1510	543	250		12/17/15 21:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	1510	422	250		12/17/15 21:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	1510	573	250		12/17/15 21:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	1510	513	250		12/17/15 21:52	78-87-5	
1,3-Dichloropropane	ND	ug/kg	1510	573	250		12/17/15 21:52	142-28-9	
2,2-Dichloropropane	ND	ug/kg	1510	513	250		12/17/15 21:52	594-20-7	
1,1-Dichloropropene	ND	ug/kg	1510	452	250		12/17/15 21:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	1510	543	250		12/17/15 21:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	1510	452	250		12/17/15 21:52	10061-02-6	
Diisopropyl ether	ND	ug/kg	1510	513	250		12/17/15 21:52	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	45200	36200	250		12/17/15 21:52	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (8-10) **Lab ID: 92279773005** Collected: 12/14/15 10:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	**27900**	ug/kg	1510	543	250		12/17/15 21:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	1510	603	250		12/17/15 21:52	87-68-3	
2-Hexanone	ND	ug/kg	15100	1180	250		12/17/15 21:52	591-78-6	
Isopropylbenzene (Cumene)	**694J**	ug/kg	1510	573	250		12/17/15 21:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	1510	513	250		12/17/15 21:52	99-87-6	
Methylene Chloride	ND	ug/kg	6030	905	250		12/17/15 21:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	15100	1120	250		12/17/15 21:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	1510	452	250		12/17/15 21:52	1634-04-4	
Naphthalene	**1430J**	ug/kg	1510	362	250		12/17/15 21:52	91-20-3	
n-Propylbenzene	ND	ug/kg	1510	513	250		12/17/15 21:52	103-65-1	
Styrene	ND	ug/kg	1510	543	250		12/17/15 21:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	1510	633	250		12/17/15 21:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	1510	573	250		12/17/15 21:52	79-34-5	
Tetrachloroethene	ND	ug/kg	1510	513	250		12/17/15 21:52	127-18-4	
Toluene	ND	ug/kg	1510	543	250		12/17/15 21:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	1510	664	250		12/17/15 21:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	1510	483	250		12/17/15 21:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	1510	543	250		12/17/15 21:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	1510	633	250		12/17/15 21:52	79-00-5	
Trichloroethene	ND	ug/kg	1510	633	250		12/17/15 21:52	79-01-6	
Trichlorofluoromethane	ND	ug/kg	1510	664	250		12/17/15 21:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	1510	483	250		12/17/15 21:52	96-18-4	
1,2,4-Trimethylbenzene	**1400J**	ug/kg	1510	603	250		12/17/15 21:52	95-63-6	
1,3,5-Trimethylbenzene	**581J**	ug/kg	1510	543	250		12/17/15 21:52	108-67-8	
Vinyl acetate	ND	ug/kg	15100	2650	250		12/17/15 21:52	108-05-4	
Vinyl chloride	ND	ug/kg	3020	543	250		12/17/15 21:52	75-01-4	
Xylene (Total)	**159000**	ug/kg	3020	1090	250		12/17/15 21:52	1330-20-7	
m&p-Xylene	**115000**	ug/kg	3020	1090	250		12/17/15 21:52	179601-23-1	
o-Xylene	**43800**	ug/kg	1510	573	250		12/17/15 21:52	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		250		12/17/15 21:52	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		250		12/17/15 21:52	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		250		12/17/15 21:52	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.1**	%	0.10	0.10	1		12/16/15 06:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (0-2) **Lab ID: 92279773006** Collected: 12/14/15 11:00 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	9.7	9.7	1		12/17/15 22:25	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	112	%	50-150		1		12/17/15 22:25	17060-07-0	
Toluene-d8 (S)	99	%	50-150		1		12/17/15 22:25	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**11.1J**	ug/kg	95.5	9.5	1		12/17/15 06:39	67-64-1	
Benzene	ND	ug/kg	4.8	1.5	1		12/17/15 06:39	71-43-2	
Bromobenzene	ND	ug/kg	4.8	1.9	1		12/17/15 06:39	108-86-1	
Bromochloromethane	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	74-97-5	
Bromodichloromethane	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	75-27-4	
Bromoform	ND	ug/kg	4.8	2.2	1		12/17/15 06:39	75-25-2	
Bromomethane	ND	ug/kg	9.5	2.4	1		12/17/15 06:39	74-83-9	
2-Butanone (MEK)	ND	ug/kg	95.5	2.8	1		12/17/15 06:39	78-93-3	
n-Butylbenzene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.8	1.5	1		12/17/15 06:39	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.8	1.9	1		12/17/15 06:39	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.8	2.5	1		12/17/15 06:39	56-23-5	
Chlorobenzene	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	108-90-7	
Chloroethane	ND	ug/kg	9.5	2.3	1		12/17/15 06:39	75-00-3	
Chloroform	ND	ug/kg	4.8	1.5	1		12/17/15 06:39	67-66-3	
Chloromethane	ND	ug/kg	9.5	2.3	1		12/17/15 06:39	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.8	3.4	1		12/17/15 06:39	96-12-8	
Dibromochloromethane	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	106-93-4	
Dibromomethane	ND	ug/kg	4.8	2.4	1		12/17/15 06:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.8	1.9	1		12/17/15 06:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.5	3.4	1		12/17/15 06:39	75-71-8	
1,1-Dichloroethane	**2.7J**	ug/kg	4.8	1.4	1		12/17/15 06:39	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.8	2.1	1		12/17/15 06:39	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	4.8	1.3	1		12/17/15 06:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.8	1.4	1		12/17/15 06:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.8	1.4	1		12/17/15 06:39	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	143	115	1		12/17/15 06:39	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (0-2) **Lab ID: 92279773006** Collected: 12/14/15 11:00 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.8	1.9	1		12/17/15 06:39	87-68-3	
2-Hexanone	ND	ug/kg	47.7	3.7	1		12/17/15 06:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	99-87-6	
Methylene Chloride	**16.0J**	ug/kg	19.1	2.9	1		12/17/15 06:39	75-09-2	B
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	47.7	3.5	1		12/17/15 06:39	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.8	1.4	1		12/17/15 06:39	1634-04-4	
Naphthalene	ND	ug/kg	4.8	1.1	1		12/17/15 06:39	91-20-3	
n-Propylbenzene	ND	ug/kg	4.8	1.6	1		12/17/15 06:39	103-65-1	
Styrene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.8	2.0	1		12/17/15 06:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	79-34-5	
Tetrachloroethene	**7.3**	ug/kg	4.8	1.6	1		12/17/15 06:39	127-18-4	
Toluene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.8	2.1	1		12/17/15 06:39	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.8	1.5	1		12/17/15 06:39	120-82-1	
1,1,1-Trichloroethane	**11.2**	ug/kg	4.8	1.7	1		12/17/15 06:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.8	2.0	1		12/17/15 06:39	79-00-5	
Trichloroethene	ND	ug/kg	4.8	2.0	1		12/17/15 06:39	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.8	2.1	1		12/17/15 06:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.8	1.5	1		12/17/15 06:39	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.8	1.9	1		12/17/15 06:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.8	1.7	1		12/17/15 06:39	108-67-8	
Vinyl acetate	ND	ug/kg	47.7	8.4	1		12/17/15 06:39	108-05-4	L2
Vinyl chloride	ND	ug/kg	9.5	1.7	1		12/17/15 06:39	75-01-4	
Xylene (Total)	ND	ug/kg	9.5	3.4	1		12/17/15 06:39	1330-20-7	
m&p-Xylene	ND	ug/kg	9.5	3.4	1		12/17/15 06:39	179601-23-1	
o-Xylene	ND	ug/kg	4.8	1.8	1		12/17/15 06:39	95-47-6	
Surrogates									
Toluene-d8 (S)	97	%	70-130		1		12/17/15 06:39	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		1		12/17/15 06:39	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		12/17/15 06:39	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.5**	%	0.10	0.10	1		12/16/15 06:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (3-5) **Lab ID: 92279773007** Collected: 12/14/15 11:15 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.3	10.3	1		12/17/15 22:46	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	108	%	50-150		1		12/17/15 22:46	17060-07-0	
Toluene-d8 (S)	96	%	50-150		1		12/17/15 22:46	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	122	12.2	1		12/17/15 06:59	67-64-1	
Benzene	ND	ug/kg	6.1	1.9	1		12/17/15 06:59	71-43-2	
Bromobenzene	ND	ug/kg	6.1	2.4	1		12/17/15 06:59	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	74-97-5	
Bromodichloromethane	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	75-27-4	
Bromoform	ND	ug/kg	6.1	2.8	1		12/17/15 06:59	75-25-2	
Bromomethane	ND	ug/kg	12.2	3.0	1		12/17/15 06:59	74-83-9	
2-Butanone (MEK)	ND	ug/kg	122	3.5	1		12/17/15 06:59	78-93-3	
n-Butylbenzene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	1.9	1		12/17/15 06:59	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	2.4	1		12/17/15 06:59	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	3.2	1		12/17/15 06:59	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	108-90-7	
Chloroethane	ND	ug/kg	12.2	2.9	1		12/17/15 06:59	75-00-3	
Chloroform	ND	ug/kg	6.1	1.9	1		12/17/15 06:59	67-66-3	
Chloromethane	ND	ug/kg	12.2	2.9	1		12/17/15 06:59	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	4.4	1		12/17/15 06:59	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	106-93-4	
Dibromomethane	ND	ug/kg	6.1	3.0	1		12/17/15 06:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	2.4	1		12/17/15 06:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.2	4.4	1		12/17/15 06:59	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.1	1.8	1		12/17/15 06:59	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	2.7	1		12/17/15 06:59	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.1	1.7	1		12/17/15 06:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.1	1.8	1		12/17/15 06:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1.8	1		12/17/15 06:59	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	182	146	1		12/17/15 06:59	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (3-5) **Lab ID: 92279773007** Collected: 12/14/15 11:15 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	2.4	1		12/17/15 06:59	87-68-3	
2-Hexanone	ND	ug/kg	60.8	4.7	1		12/17/15 06:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	99-87-6	
Methylene Chloride	**10.6J**	ug/kg	24.3	3.6	1		12/17/15 06:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.8	4.5	1		12/17/15 06:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.8	1		12/17/15 06:59	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1.5	1		12/17/15 06:59	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	103-65-1	
Styrene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	2.6	1		12/17/15 06:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	79-34-5	
Tetrachloroethene	ND	ug/kg	6.1	2.1	1		12/17/15 06:59	127-18-4	
Toluene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	2.7	1		12/17/15 06:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.9	1		12/17/15 06:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	2.6	1		12/17/15 06:59	79-00-5	
Trichloroethene	ND	ug/kg	6.1	2.6	1		12/17/15 06:59	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	2.7	1		12/17/15 06:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.9	1		12/17/15 06:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	2.4	1		12/17/15 06:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	2.2	1		12/17/15 06:59	108-67-8	
Vinyl acetate	ND	ug/kg	60.8	10.7	1		12/17/15 06:59	108-05-4	L2
Vinyl chloride	ND	ug/kg	12.2	2.2	1		12/17/15 06:59	75-01-4	
Xylene (Total)	ND	ug/kg	12.2	4.4	1		12/17/15 06:59	1330-20-7	
m&p-Xylene	ND	ug/kg	12.2	4.4	1		12/17/15 06:59	179601-23-1	
o-Xylene	ND	ug/kg	6.1	2.3	1		12/17/15 06:59	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/17/15 06:59	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/17/15 06:59	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		12/17/15 06:59	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.3**	%	0.10	0.10	1		12/16/15 06:39		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (8-10) **Lab ID: 92279773008** Collected: 12/14/15 11:25 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.0	11.0	1		12/17/15 23:06	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	101	%	50-150		1		12/17/15 23:06	17060-07-0	
Toluene-d8 (S)	87	%	50-150		1		12/17/15 23:06	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	114	11.4	1		12/17/15 07:19	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		12/17/15 07:19	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		12/17/15 07:19	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		12/17/15 07:19	75-25-2	
Bromomethane	ND	ug/kg	11.4	2.9	1		12/17/15 07:19	74-83-9	
2-Butanone (MEK)	ND	ug/kg	114	3.3	1		12/17/15 07:19	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		12/17/15 07:19	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		12/17/15 07:19	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	3.0	1		12/17/15 07:19	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	108-90-7	
Chloroethane	ND	ug/kg	11.4	2.7	1		12/17/15 07:19	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		12/17/15 07:19	67-66-3	
Chloromethane	ND	ug/kg	11.4	2.7	1		12/17/15 07:19	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		12/17/15 07:19	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.9	1		12/17/15 07:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		12/17/15 07:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.4	4.1	1		12/17/15 07:19	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		12/17/15 07:19	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		12/17/15 07:19	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		12/17/15 07:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/17/15 07:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/17/15 07:19	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	172	137	1		12/17/15 07:19	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (8-10) **Lab ID: 92279773008** Collected: 12/14/15 11:25 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		12/17/15 07:19	87-68-3	
2-Hexanone	ND	ug/kg	57.2	4.5	1		12/17/15 07:19	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	99-87-6	
Methylene Chloride	**10.1J**	ug/kg	22.9	3.4	1		12/17/15 07:19	75-09-2	B
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.2	4.2	1		12/17/15 07:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		12/17/15 07:19	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		12/17/15 07:19	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		12/17/15 07:19	103-65-1	
Styrene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		12/17/15 07:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	79-34-5	
Tetrachloroethene	**16.4**	ug/kg	5.7	1.9	1		12/17/15 07:19	127-18-4	
Toluene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		12/17/15 07:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		12/17/15 07:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		12/17/15 07:19	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		12/17/15 07:19	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		12/17/15 07:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		12/17/15 07:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		12/17/15 07:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.1	1		12/17/15 07:19	108-67-8	
Vinyl acetate	ND	ug/kg	57.2	10.1	1		12/17/15 07:19	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.4	2.1	1		12/17/15 07:19	75-01-4	
Xylene (Total)	ND	ug/kg	11.4	4.1	1		12/17/15 07:19	1330-20-7	
m&p-Xylene	ND	ug/kg	11.4	4.1	1		12/17/15 07:19	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.2	1		12/17/15 07:19	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		12/17/15 07:19	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		12/17/15 07:19	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		12/17/15 07:19	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.3**	%	0.10	0.10	1		12/16/15 06:44		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (13-15) **Lab ID: 92279773009** Collected: 12/14/15 11:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	230	230	25		12/17/15 23:27	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	126	%	50-150		25		12/17/15 23:27	17060-07-0	D3
Toluene-d8 (S)	144	%	50-150		25		12/17/15 23:27	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	11500	1150	100		12/17/15 22:11	67-64-1	
Benzene	ND	ug/kg	573	183	100		12/17/15 22:11	71-43-2	
Bromobenzene	ND	ug/kg	573	229	100		12/17/15 22:11	108-86-1	
Bromochloromethane	ND	ug/kg	573	195	100		12/17/15 22:11	74-97-5	
Bromodichloromethane	ND	ug/kg	573	218	100		12/17/15 22:11	75-27-4	
Bromoform	ND	ug/kg	573	263	100		12/17/15 22:11	75-25-2	
Bromomethane	ND	ug/kg	1150	286	100		12/17/15 22:11	74-83-9	
2-Butanone (MEK)	ND	ug/kg	11500	332	100		12/17/15 22:11	78-93-3	
n-Butylbenzene	ND	ug/kg	573	206	100		12/17/15 22:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	573	183	100		12/17/15 22:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	573	229	100		12/17/15 22:11	98-06-6	
Carbon tetrachloride	ND	ug/kg	573	298	100		12/17/15 22:11	56-23-5	
Chlorobenzene	ND	ug/kg	573	218	100		12/17/15 22:11	108-90-7	
Chloroethane	ND	ug/kg	1150	275	100		12/17/15 22:11	75-00-3	
Chloroform	ND	ug/kg	573	183	100		12/17/15 22:11	67-66-3	
Chloromethane	ND	ug/kg	1150	275	100		12/17/15 22:11	74-87-3	
2-Chlorotoluene	ND	ug/kg	573	195	100		12/17/15 22:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	573	206	100		12/17/15 22:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	573	412	100		12/17/15 22:11	96-12-8	
Dibromochloromethane	ND	ug/kg	573	206	100		12/17/15 22:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	573	206	100		12/17/15 22:11	106-93-4	
Dibromomethane	ND	ug/kg	573	286	100		12/17/15 22:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	573	218	100		12/17/15 22:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	573	229	100		12/17/15 22:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	573	195	100		12/17/15 22:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	1150	412	100		12/17/15 22:11	75-71-8	
1,1-Dichloroethane	**663**	ug/kg	573	172	100		12/17/15 22:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	573	252	100		12/17/15 22:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	573	206	100		12/17/15 22:11	75-35-4	
cis-1,2-Dichloroethene	**369J**	ug/kg	573	160	100		12/17/15 22:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	573	218	100		12/17/15 22:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	573	195	100		12/17/15 22:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	573	218	100		12/17/15 22:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	573	195	100		12/17/15 22:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	573	172	100		12/17/15 22:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	573	206	100		12/17/15 22:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	573	172	100		12/17/15 22:11	10061-02-6	
Diisopropyl ether	ND	ug/kg	573	195	100		12/17/15 22:11	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	17200	13700	100		12/17/15 22:11	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (13-15) **Lab ID: 92279773009** Collected: 12/14/15 11:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	**7920**	ug/kg	573	206	100		12/17/15 22:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	573	229	100		12/17/15 22:11	87-68-3	
2-Hexanone	ND	ug/kg	5730	447	100		12/17/15 22:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	573	218	100		12/17/15 22:11	98-82-8	
p-Isopropyltoluene	ND	ug/kg	573	195	100		12/17/15 22:11	99-87-6	
Methylene Chloride	ND	ug/kg	2290	344	100		12/17/15 22:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	5730	424	100		12/17/15 22:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	573	172	100		12/17/15 22:11	1634-04-4	
Naphthalene	ND	ug/kg	573	137	100		12/17/15 22:11	91-20-3	
n-Propylbenzene	ND	ug/kg	573	195	100		12/17/15 22:11	103-65-1	
Styrene	ND	ug/kg	573	206	100		12/17/15 22:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	573	240	100		12/17/15 22:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	573	218	100		12/17/15 22:11	79-34-5	
Tetrachloroethene	ND	ug/kg	573	195	100		12/17/15 22:11	127-18-4	
Toluene	**8050**	ug/kg	573	206	100		12/17/15 22:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	573	252	100		12/17/15 22:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	573	183	100		12/17/15 22:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	573	206	100		12/17/15 22:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	573	240	100		12/17/15 22:11	79-00-5	
Trichloroethene	ND	ug/kg	573	240	100		12/17/15 22:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	573	252	100		12/17/15 22:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	573	183	100		12/17/15 22:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	573	229	100		12/17/15 22:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	573	206	100		12/17/15 22:11	108-67-8	
Vinyl acetate	ND	ug/kg	5730	1010	100		12/17/15 22:11	108-05-4	
Vinyl chloride	ND	ug/kg	1150	206	100		12/17/15 22:11	75-01-4	
Xylene (Total)	**51800**	ug/kg	1150	412	100		12/17/15 22:11	1330-20-7	
m&p-Xylene	**37800**	ug/kg	1150	412	100		12/17/15 22:11	179601-23-1	
o-Xylene	**14000**	ug/kg	573	218	100		12/17/15 22:11	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		100		12/17/15 22:11	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		100		12/17/15 22:11	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-132		100		12/17/15 22:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.5**	%	0.10	0.10	1		12/16/15 06:45		

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-02 **Lab ID: 92279773010** Collected: 12/14/15 11:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.0	10.0	1		12/17/15 23:47	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%	50-150		1		12/17/15 23:47	17060-07-0	
Toluene-d8 (S)	87	%	50-150		1		12/17/15 23:47	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		12/17/15 07:58	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/17/15 07:58	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/17/15 07:58	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/17/15 07:58	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/17/15 07:58	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		12/17/15 07:58	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/17/15 07:58	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/17/15 07:58	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/17/15 07:58	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/17/15 07:58	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/17/15 07:58	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/17/15 07:58	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/17/15 07:58	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/17/15 07:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/17/15 07:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/17/15 07:58	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/17/15 07:58	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/17/15 07:58	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/17/15 07:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/17/15 07:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/17/15 07:58	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/17/15 07:58	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-02 **Lab ID: 92279773010** Collected: 12/14/15 11:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/17/15 07:58	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/17/15 07:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	99-87-6	
Methylene Chloride	**11.9J**	ug/kg	20.0	3.0	1		12/17/15 07:58	75-09-2	B
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/17/15 07:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/17/15 07:58	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/17/15 07:58	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/17/15 07:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/17/15 07:58	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/17/15 07:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/17/15 07:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/17/15 07:58	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/17/15 07:58	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/17/15 07:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/17/15 07:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/17/15 07:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/17/15 07:58	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/17/15 07:58	108-05-4	L2
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/17/15 07:58	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/17/15 07:58	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/17/15 07:58	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/17/15 07:58	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/17/15 07:58	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/17/15 07:58	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-132		1		12/17/15 07:58	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (28-30) **Lab ID: 92279773011** Collected: 12/14/15 11:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**96.7**	ug/kg	12.1	12.1	1		12/18/15 00:07	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	90	%	50-150		1		12/18/15 00:07	17060-07-0	
Toluene-d8 (S)	81	%	50-150		1		12/18/15 00:07	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	112	11.2	1		12/19/15 12:14	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		12/19/15 12:14	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.2	1		12/19/15 12:14	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		12/19/15 12:14	75-25-2	
Bromomethane	ND	ug/kg	11.2	2.8	1		12/19/15 12:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	112	3.3	1		12/19/15 12:14	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		12/19/15 12:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.2	1		12/19/15 12:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		12/19/15 12:14	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	108-90-7	
Chloroethane	ND	ug/kg	11.2	2.7	1		12/19/15 12:14	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		12/19/15 12:14	67-66-3	
Chloromethane	ND	ug/kg	11.2	2.7	1		12/19/15 12:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.0	1		12/19/15 12:14	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		12/19/15 12:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.2	1		12/19/15 12:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.2	4.0	1		12/19/15 12:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1.7	1		12/19/15 12:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.5	1		12/19/15 12:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1.6	1		12/19/15 12:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/19/15 12:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/19/15 12:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	169	135	1		12/19/15 12:14	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (28-30) **Lab ID: 92279773011** Collected: 12/14/15 11:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.2	1		12/19/15 12:14	87-68-3	
2-Hexanone	ND	ug/kg	56.2	4.4	1		12/19/15 12:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	99-87-6	
Methylene Chloride	**11.6J**	ug/kg	22.5	3.4	1		12/19/15 12:14	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.2	4.2	1		12/19/15 12:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		12/19/15 12:14	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.3	1		12/19/15 12:14	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.4	1		12/19/15 12:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	79-34-5	
Tetrachloroethene	ND	ug/kg	5.6	1.9	1		12/19/15 12:14	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.5	1		12/19/15 12:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		12/19/15 12:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.4	1		12/19/15 12:14	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.4	1		12/19/15 12:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.5	1		12/19/15 12:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		12/19/15 12:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.2	1		12/19/15 12:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 12:14	108-67-8	
Vinyl acetate	ND	ug/kg	56.2	9.9	1		12/19/15 12:14	108-05-4	
Vinyl chloride	ND	ug/kg	11.2	2.0	1		12/19/15 12:14	75-01-4	
Xylene (Total)	ND	ug/kg	11.2	4.0	1		12/19/15 12:14	1330-20-7	
m&p-Xylene	ND	ug/kg	11.2	4.0	1		12/19/15 12:14	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		12/19/15 12:14	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/19/15 12:14	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1		12/19/15 12:14	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-132		1		12/19/15 12:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.3**	%	0.10	0.10	1		12/16/15 06:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (23-25) **Lab ID: 92279773012** Collected: 12/14/15 11:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**203**	ug/kg	10.8	10.8	1		12/18/15 00:28	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%	50-150		1		12/18/15 00:28	17060-07-0	
Toluene-d8 (S)	95	%	50-150		1		12/18/15 00:28	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**16.0J**	ug/kg	121	12.1	1		12/19/15 12:34	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		12/19/15 12:34	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		12/19/15 12:34	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	75-27-4	
Bromoform	ND	ug/kg	6.0	2.8	1		12/19/15 12:34	75-25-2	
Bromomethane	ND	ug/kg	12.1	3.0	1		12/19/15 12:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	121	3.5	1		12/19/15 12:34	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		12/19/15 12:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		12/19/15 12:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		12/19/15 12:34	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	108-90-7	
Chloroethane	ND	ug/kg	12.1	2.9	1		12/19/15 12:34	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		12/19/15 12:34	67-66-3	
Chloromethane	ND	ug/kg	12.1	2.9	1		12/19/15 12:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		12/19/15 12:34	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		12/19/15 12:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		12/19/15 12:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.1	4.3	1		12/19/15 12:34	75-71-8	
1,1-Dichloroethane	**2.1J**	ug/kg	6.0	1.8	1		12/19/15 12:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.7	1		12/19/15 12:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	75-35-4	
cis-1,2-Dichloroethene	**5.6J**	ug/kg	6.0	1.7	1		12/19/15 12:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		12/19/15 12:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		12/19/15 12:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	181	145	1		12/19/15 12:34	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (23-25) **Lab ID: 92279773012** Collected: 12/14/15 11:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		12/19/15 12:34	87-68-3	
2-Hexanone	ND	ug/kg	60.4	4.7	1		12/19/15 12:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	99-87-6	
Methylene Chloride	**11.9J**	ug/kg	24.2	3.6	1		12/19/15 12:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.4	4.5	1		12/19/15 12:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		12/19/15 12:34	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		12/19/15 12:34	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	103-65-1	
Styrene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		12/19/15 12:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	79-34-5	
Tetrachloroethene	ND	ug/kg	6.0	2.1	1		12/19/15 12:34	127-18-4	
Toluene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.7	1		12/19/15 12:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		12/19/15 12:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		12/19/15 12:34	79-00-5	
Trichloroethene	ND	ug/kg	6.0	2.5	1		12/19/15 12:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.7	1		12/19/15 12:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		12/19/15 12:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		12/19/15 12:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.2	1		12/19/15 12:34	108-67-8	
Vinyl acetate	ND	ug/kg	60.4	10.6	1		12/19/15 12:34	108-05-4	
Vinyl chloride	ND	ug/kg	12.1	2.2	1		12/19/15 12:34	75-01-4	
Xylene (Total)	ND	ug/kg	12.1	4.3	1		12/19/15 12:34	1330-20-7	
m&p-Xylene	ND	ug/kg	12.1	4.3	1		12/19/15 12:34	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		12/19/15 12:34	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/19/15 12:34	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/19/15 12:34	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-132		1		12/19/15 12:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.4**	%	0.10	0.10	1		12/16/15 06:45		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (23-25) **Lab ID: 92279773013** Collected: 12/14/15 11:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	300	300	25		12/18/15 12:58	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	92	%	50-150		1		12/18/15 00:48	17060-07-0	
Toluene-d8 (S)	79	%	50-150		1		12/18/15 00:48	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	117	11.7	1		12/19/15 12:53	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		12/19/15 12:53	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.3	1		12/19/15 12:53	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		12/19/15 12:53	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		12/19/15 12:53	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		12/19/15 12:53	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		12/19/15 12:53	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.3	1		12/19/15 12:53	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		12/19/15 12:53	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		12/19/15 12:53	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		12/19/15 12:53	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		12/19/15 12:53	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		12/19/15 12:53	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		12/19/15 12:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		12/19/15 12:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		12/19/15 12:53	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		12/19/15 12:53	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		12/19/15 12:53	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	75-35-4	
cis-1,2-Dichloroethene	**2.4J**	ug/kg	5.9	1.6	1		12/19/15 12:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/19/15 12:53	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/19/15 12:53	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	108-20-3	
1,4-Dioxane (p-Dioxane)	**206**	ug/kg	176	141	1		12/19/15 12:53	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (23-25) **Lab ID: 92279773013** Collected: 12/14/15 11:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.3	1		12/19/15 12:53	87-68-3	
2-Hexanone	ND	ug/kg	58.7	4.6	1		12/19/15 12:53	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	99-87-6	
Methylene Chloride	**15.3J**	ug/kg	23.5	3.5	1		12/19/15 12:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.7	4.3	1		12/19/15 12:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		12/19/15 12:53	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		12/19/15 12:53	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		12/19/15 12:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		12/19/15 12:53	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		12/19/15 12:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		12/19/15 12:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		12/19/15 12:53	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		12/19/15 12:53	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		12/19/15 12:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		12/19/15 12:53	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.3	1		12/19/15 12:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 12:53	108-67-8	
Vinyl acetate	ND	ug/kg	58.7	10.3	1		12/19/15 12:53	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		12/19/15 12:53	75-01-4	
Xylene (Total)	ND	ug/kg	11.7	4.2	1		12/19/15 12:53	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	4.2	1		12/19/15 12:53	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		12/19/15 12:53	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/19/15 12:53	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/19/15 12:53	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		1		12/19/15 12:53	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.5**	%	0.10	0.10	1		12/16/15 06:45		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (28-30) **Lab ID: 92279773014** Collected: 12/14/15 11:55 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**175**	ug/kg	11.7	11.7	1		12/18/15 01:08	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	90	%	50-150		1		12/18/15 01:08	17060-07-0	
Toluene-d8 (S)	82	%	50-150		1		12/18/15 01:08	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	113	11.3	1		12/19/15 13:13	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		12/19/15 13:13	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		12/19/15 13:13	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		12/19/15 13:13	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		12/19/15 13:13	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		12/19/15 13:13	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		12/19/15 13:13	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		12/19/15 13:13	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	2.9	1		12/19/15 13:13	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		12/19/15 13:13	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		12/19/15 13:13	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		12/19/15 13:13	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		12/19/15 13:13	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.8	1		12/19/15 13:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		12/19/15 13:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		12/19/15 13:13	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		12/19/15 13:13	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		12/19/15 13:13	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		12/19/15 13:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/19/15 13:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/19/15 13:13	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	108-20-3	
1,4-Dioxane (p-Dioxane)	**160J**	ug/kg	170	136	1		12/19/15 13:13	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (28-30) **Lab ID: 92279773014** Collected: 12/14/15 11:55 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		12/19/15 13:13	87-68-3	
2-Hexanone	ND	ug/kg	56.6	4.4	1		12/19/15 13:13	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	99-87-6	
Methylene Chloride	**15.4J**	ug/kg	22.6	3.4	1		12/19/15 13:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.6	4.2	1		12/19/15 13:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		12/19/15 13:13	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		12/19/15 13:13	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	103-65-1	
Styrene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		12/19/15 13:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1.9	1		12/19/15 13:13	127-18-4	
Toluene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		12/19/15 13:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		12/19/15 13:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		12/19/15 13:13	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		12/19/15 13:13	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		12/19/15 13:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		12/19/15 13:13	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		12/19/15 13:13	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.0	1		12/19/15 13:13	108-67-8	
Vinyl acetate	ND	ug/kg	56.6	10	1		12/19/15 13:13	108-05-4	
Vinyl chloride	ND	ug/kg	11.3	2.0	1		12/19/15 13:13	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		12/19/15 13:13	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		12/19/15 13:13	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.1	1		12/19/15 13:13	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/19/15 13:13	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/19/15 13:13	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		12/19/15 13:13	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.1**	%	0.10	0.10	1		12/16/15 06:46		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (13-15) **Lab ID: 92279773015** Collected: 12/14/15 12:00 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**24.9**	ug/kg	11.2	11.2	1		12/18/15 01:29	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	96	%	50-150		1		12/18/15 01:29	17060-07-0	
Toluene-d8 (S)	85	%	50-150		1		12/18/15 01:29	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**11.9J**	ug/kg	110	11.0	1		12/19/15 13:33	67-64-1	
Benzene	ND	ug/kg	5.5	1.8	1		12/19/15 13:33	71-43-2	
Bromobenzene	ND	ug/kg	5.5	2.2	1		12/19/15 13:33	108-86-1	
Bromochloromethane	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	74-97-5	
Bromodichloromethane	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	75-27-4	
Bromoform	ND	ug/kg	5.5	2.5	1		12/19/15 13:33	75-25-2	
Bromomethane	ND	ug/kg	11.0	2.8	1		12/19/15 13:33	74-83-9	
2-Butanone (MEK)	ND	ug/kg	110	3.2	1		12/19/15 13:33	78-93-3	
n-Butylbenzene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.5	1.8	1		12/19/15 13:33	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.5	2.2	1		12/19/15 13:33	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.5	2.9	1		12/19/15 13:33	56-23-5	
Chlorobenzene	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	108-90-7	
Chloroethane	ND	ug/kg	11.0	2.6	1		12/19/15 13:33	75-00-3	
Chloroform	ND	ug/kg	5.5	1.8	1		12/19/15 13:33	67-66-3	
Chloromethane	ND	ug/kg	11.0	2.6	1		12/19/15 13:33	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.5	4.0	1		12/19/15 13:33	96-12-8	
Dibromochloromethane	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	106-93-4	
Dibromomethane	ND	ug/kg	5.5	2.8	1		12/19/15 13:33	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.5	2.2	1		12/19/15 13:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.0	4.0	1		12/19/15 13:33	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.5	1.7	1		12/19/15 13:33	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.5	2.4	1		12/19/15 13:33	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.5	1.5	1		12/19/15 13:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.5	1.7	1		12/19/15 13:33	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.5	1.7	1		12/19/15 13:33	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	165	132	1		12/19/15 13:33	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (13-15) **Lab ID: 92279773015** Collected: 12/14/15 12:00 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.5	2.2	1		12/19/15 13:33	87-68-3	
2-Hexanone	ND	ug/kg	55.1	4.3	1		12/19/15 13:33	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	99-87-6	
Methylene Chloride	**13.4J**	ug/kg	22.0	3.3	1		12/19/15 13:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.1	4.1	1		12/19/15 13:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.5	1.7	1		12/19/15 13:33	1634-04-4	
Naphthalene	ND	ug/kg	5.5	1.3	1		12/19/15 13:33	91-20-3	
n-Propylbenzene	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	103-65-1	
Styrene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.5	2.3	1		12/19/15 13:33	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	79-34-5	
Tetrachloroethene	ND	ug/kg	5.5	1.9	1		12/19/15 13:33	127-18-4	
Toluene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.5	2.4	1		12/19/15 13:33	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.5	1.8	1		12/19/15 13:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.5	2.3	1		12/19/15 13:33	79-00-5	
Trichloroethene	ND	ug/kg	5.5	2.3	1		12/19/15 13:33	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.5	2.4	1		12/19/15 13:33	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.5	1.8	1		12/19/15 13:33	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.5	2.2	1		12/19/15 13:33	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.5	2.0	1		12/19/15 13:33	108-67-8	
Vinyl acetate	ND	ug/kg	55.1	9.7	1		12/19/15 13:33	108-05-4	
Vinyl chloride	ND	ug/kg	11.0	2.0	1		12/19/15 13:33	75-01-4	
Xylene (Total)	ND	ug/kg	11.0	4.0	1		12/19/15 13:33	1330-20-7	
m&p-Xylene	ND	ug/kg	11.0	4.0	1		12/19/15 13:33	179601-23-1	
o-Xylene	ND	ug/kg	5.5	2.1	1		12/19/15 13:33	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/19/15 13:33	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/19/15 13:33	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-132		1		12/19/15 13:33	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.1**	%	0.10	0.10	1		12/16/15 06:46		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (18-20) **Lab ID: 92279773016** Collected: 12/14/15 12:10 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**212**	ug/kg	12.0	12.0	1		12/18/15 01:49	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	88	%	50-150		1		12/18/15 01:49	17060-07-0	
Toluene-d8 (S)	87	%	50-150		1		12/18/15 01:49	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**40.8J**	ug/kg	107	10.7	1		12/19/15 13:52	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		12/19/15 13:52	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.1	1		12/19/15 13:52	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		12/19/15 13:52	75-25-2	
Bromomethane	ND	ug/kg	10.7	2.7	1		12/19/15 13:52	74-83-9	
2-Butanone (MEK)	ND	ug/kg	107	3.1	1		12/19/15 13:52	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		12/19/15 13:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.1	1		12/19/15 13:52	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		12/19/15 13:52	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	108-90-7	
Chloroethane	ND	ug/kg	10.7	2.6	1		12/19/15 13:52	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		12/19/15 13:52	67-66-3	
Chloromethane	ND	ug/kg	10.7	2.6	1		12/19/15 13:52	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		12/19/15 13:52	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		12/19/15 13:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		12/19/15 13:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.7	3.9	1		12/19/15 13:52	75-71-8	
1,1-Dichloroethane	**8.1**	ug/kg	5.4	1.6	1		12/19/15 13:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		12/19/15 13:52	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	75-35-4	
cis-1,2-Dichloroethene	**20.2**	ug/kg	5.4	1.5	1		12/19/15 13:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		12/19/15 13:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		12/19/15 13:52	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	108-20-3	
1,4-Dioxane (p-Dioxane)	**240**	ug/kg	161	129	1		12/19/15 13:52	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28A (18-20) **Lab ID: 92279773016** Collected: 12/14/15 12:10 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	**2.0J**	ug/kg	5.4	1.9	1		12/19/15 13:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.1	1		12/19/15 13:52	87-68-3	
2-Hexanone	ND	ug/kg	53.6	4.2	1		12/19/15 13:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	99-87-6	
Methylene Chloride	**9.6J**	ug/kg	21.5	3.2	1		12/19/15 13:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53.6	4.0	1		12/19/15 13:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		12/19/15 13:52	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		12/19/15 13:52	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		12/19/15 13:52	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		12/19/15 13:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.0	1		12/19/15 13:52	79-34-5	
Tetrachloroethene	**8000**	ug/kg	536	182	100		12/21/15 13:59	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		12/19/15 13:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		12/19/15 13:52	120-82-1	
1,1,1-Trichloroethane	**9.7**	ug/kg	5.4	1.9	1		12/19/15 13:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		12/19/15 13:52	79-00-5	
Trichloroethene	**67.8**	ug/kg	5.4	2.3	1		12/19/15 13:52	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		12/19/15 13:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		12/19/15 13:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.1	1		12/19/15 13:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		12/19/15 13:52	108-67-8	
Vinyl acetate	ND	ug/kg	53.6	9.4	1		12/19/15 13:52	108-05-4	
Vinyl chloride	ND	ug/kg	10.7	1.9	1		12/19/15 13:52	75-01-4	
Xylene (Total)	**11.0**	ug/kg	10.7	3.9	1		12/19/15 13:52	1330-20-7	
m&p-Xylene	**11.0**	ug/kg	10.7	3.9	1		12/19/15 13:52	179601-23-1	
o-Xylene	**3.3J**	ug/kg	5.4	2.0	1		12/19/15 13:52	95-47-6	
Surrogates									
Toluene-d8 (S)	89	%	70-130		1		12/19/15 13:52	2037-26-5	IO
4-Bromofluorobenzene (S)	82	%	70-130		1		12/19/15 13:52	460-00-4	
1,2-Dichloroethane-d4 (S)	132	%	70-132		1		12/19/15 13:52	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.9**	%	0.10	0.10	1		12/16/15 06:46		

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (18-20) **Lab ID: 92279773017** Collected: 12/14/15 12:10 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**48.9**	ug/kg	11.1	11.1	1		12/18/15 02:10	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%	50-150		1		12/18/15 02:10	17060-07-0	
Toluene-d8 (S)	88	%	50-150		1		12/18/15 02:10	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	115	11.5	1		12/19/15 14:12	67-64-1	
Benzene	ND	ug/kg	5.8	1.8	1		12/19/15 14:12	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		12/19/15 14:12	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		12/19/15 14:12	75-25-2	
Bromomethane	ND	ug/kg	11.5	2.9	1		12/19/15 14:12	74-83-9	
2-Butanone (MEK)	ND	ug/kg	115	3.3	1		12/19/15 14:12	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.8	1		12/19/15 14:12	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		12/19/15 14:12	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		12/19/15 14:12	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	108-90-7	
Chloroethane	ND	ug/kg	11.5	2.8	1		12/19/15 14:12	75-00-3	
Chloroform	ND	ug/kg	5.8	1.8	1		12/19/15 14:12	67-66-3	
Chloromethane	ND	ug/kg	11.5	2.8	1		12/19/15 14:12	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.1	1		12/19/15 14:12	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		12/19/15 14:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		12/19/15 14:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.5	4.1	1		12/19/15 14:12	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		12/19/15 14:12	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.5	1		12/19/15 14:12	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		12/19/15 14:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/19/15 14:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/19/15 14:12	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	173	138	1		12/19/15 14:12	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-19A (18-20) **Lab ID: 92279773017** Collected: 12/14/15 12:10 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		12/19/15 14:12	87-68-3	
2-Hexanone	ND	ug/kg	57.6	4.5	1		12/19/15 14:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	99-87-6	
Methylene Chloride	**18.6J**	ug/kg	23.1	3.5	1		12/19/15 14:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.6	4.3	1		12/19/15 14:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		12/19/15 14:12	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		12/19/15 14:12	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		12/19/15 14:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		12/19/15 14:12	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.5	1		12/19/15 14:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.8	1		12/19/15 14:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		12/19/15 14:12	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		12/19/15 14:12	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.5	1		12/19/15 14:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.8	1		12/19/15 14:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		12/19/15 14:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		12/19/15 14:12	108-67-8	
Vinyl acetate	ND	ug/kg	57.6	10.1	1		12/19/15 14:12	108-05-4	
Vinyl chloride	ND	ug/kg	11.5	2.1	1		12/19/15 14:12	75-01-4	
Xylene (Total)	ND	ug/kg	11.5	4.1	1		12/19/15 14:12	1330-20-7	
m&p-Xylene	ND	ug/kg	11.5	4.1	1		12/19/15 14:12	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		12/19/15 14:12	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/19/15 14:12	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/19/15 14:12	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		12/19/15 14:12	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.3**	%	0.10	0.10	1		12/16/15 06:47		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-03 **Lab ID: 92279773018** Collected: 12/14/15 12:20 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.0	10.0	1		12/18/15 14:00	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	82	%	50-150		1		12/18/15 14:00	17060-07-0	
Toluene-d8 (S)	128	%	50-150		1		12/18/15 14:00	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		12/19/15 14:32	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/19/15 14:32	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/19/15 14:32	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/19/15 14:32	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/19/15 14:32	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		12/19/15 14:32	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/19/15 14:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/19/15 14:32	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/19/15 14:32	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/19/15 14:32	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/19/15 14:32	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/19/15 14:32	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/19/15 14:32	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/19/15 14:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/19/15 14:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/19/15 14:32	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/19/15 14:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/19/15 14:32	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/19/15 14:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/19/15 14:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/19/15 14:32	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/19/15 14:32	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-03 **Lab ID: 92279773018** Collected: 12/14/15 12:20 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/19/15 14:32	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/19/15 14:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	99-87-6	
Methylene Chloride	**15.4J**	ug/kg	20.0	3.0	1		12/19/15 14:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/19/15 14:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/19/15 14:32	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/19/15 14:32	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/19/15 14:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/19/15 14:32	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/19/15 14:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/19/15 14:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/19/15 14:32	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/19/15 14:32	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/19/15 14:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/19/15 14:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/19/15 14:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/19/15 14:32	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/19/15 14:32	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/19/15 14:32	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/19/15 14:32	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/19/15 14:32	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/19/15 14:32	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/19/15 14:32	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		12/19/15 14:32	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-132		1		12/19/15 14:32	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28-A (30-32) **Lab ID: 92279773019** Collected: 12/14/15 12:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	296	296	25		12/18/15 14:20	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	81	%	50-150		25		12/18/15 14:20	17060-07-0	D3
Toluene-d8 (S)	127	%	50-150		25		12/18/15 14:20	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**79.3J**	ug/kg	117	11.7	1		12/20/15 16:52	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		12/20/15 16:52	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.3	1		12/20/15 16:52	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		12/20/15 16:52	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		12/20/15 16:52	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		12/20/15 16:52	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		12/20/15 16:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.3	1		12/20/15 16:52	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		12/20/15 16:52	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		12/20/15 16:52	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		12/20/15 16:52	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		12/20/15 16:52	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		12/20/15 16:52	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		12/20/15 16:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		12/20/15 16:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		12/20/15 16:52	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		12/20/15 16:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		12/20/15 16:52	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.6	1		12/20/15 16:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/20/15 16:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/20/15 16:52	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	176	141	1		12/20/15 16:52	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-28-A (30-32) **Lab ID: 92279773019** Collected: 12/14/15 12:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	**63.5**	ug/kg	5.9	2.1	1		12/20/15 16:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.3	1		12/20/15 16:52	87-68-3	
2-Hexanone	ND	ug/kg	58.7	4.6	1		12/20/15 16:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	99-87-6	
Methylene Chloride	**61.5**	ug/kg	23.5	3.5	1		12/20/15 16:52	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.7	4.3	1		12/20/15 16:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		12/20/15 16:52	1634-04-4	
Naphthalene	**4.6J**	ug/kg	5.9	1.4	1		12/20/15 16:52	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	103-65-1	
Styrene	**2.5J**	ug/kg	5.9	2.1	1		12/20/15 16:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		12/20/15 16:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		12/20/15 16:52	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		12/20/15 16:52	127-18-4	
Toluene	**5.9**	ug/kg	5.9	2.1	1		12/20/15 16:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		12/20/15 16:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		12/20/15 16:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		12/20/15 16:52	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		12/20/15 16:52	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		12/20/15 16:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		12/20/15 16:52	96-18-4	
1,2,4-Trimethylbenzene	**4.2J**	ug/kg	5.9	2.3	1		12/20/15 16:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		12/20/15 16:52	108-67-8	
Vinyl acetate	ND	ug/kg	58.7	10.3	1		12/20/15 16:52	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		12/20/15 16:52	75-01-4	
Xylene (Total)	**433**	ug/kg	11.7	4.2	1		12/20/15 16:52	1330-20-7	
m&p-Xylene	**295**	ug/kg	11.7	4.2	1		12/20/15 16:52	179601-23-1	
o-Xylene	**137**	ug/kg	5.9	2.2	1		12/20/15 16:52	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/20/15 16:52	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/20/15 16:52	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-132		1		12/20/15 16:52	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.9**	%	0.10	0.10	1		12/16/15 06:47		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (8-10) **Lab ID: 92279773020** Collected: 12/14/15 12:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	13.5	13.5	1		12/18/15 14:41	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	81	%	50-150		1		12/18/15 14:41	17060-07-0	
Toluene-d8 (S)	123	%	50-150		1		12/18/15 14:41	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	139	13.9	1		12/19/15 15:12	67-64-1	
Benzene	ND	ug/kg	6.9	2.2	1		12/19/15 15:12	71-43-2	
Bromobenzene	ND	ug/kg	6.9	2.8	1		12/19/15 15:12	108-86-1	
Bromochloromethane	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	74-97-5	
Bromodichloromethane	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	75-27-4	
Bromoform	ND	ug/kg	6.9	3.2	1		12/19/15 15:12	75-25-2	
Bromomethane	ND	ug/kg	13.9	3.5	1		12/19/15 15:12	74-83-9	
2-Butanone (MEK)	ND	ug/kg	139	4.0	1		12/19/15 15:12	78-93-3	
n-Butylbenzene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.9	2.2	1		12/19/15 15:12	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.9	2.8	1		12/19/15 15:12	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.9	3.6	1		12/19/15 15:12	56-23-5	
Chlorobenzene	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	108-90-7	
Chloroethane	ND	ug/kg	13.9	3.3	1		12/19/15 15:12	75-00-3	
Chloroform	ND	ug/kg	6.9	2.2	1		12/19/15 15:12	67-66-3	
Chloromethane	ND	ug/kg	13.9	3.3	1		12/19/15 15:12	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.9	5.0	1		12/19/15 15:12	96-12-8	
Dibromochloromethane	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	106-93-4	
Dibromomethane	ND	ug/kg	6.9	3.5	1		12/19/15 15:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.9	2.8	1		12/19/15 15:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.9	5.0	1		12/19/15 15:12	75-71-8	
1,1-Dichloroethane	**38.6**	ug/kg	6.9	2.1	1		12/19/15 15:12	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.9	3.1	1		12/19/15 15:12	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	75-35-4	
cis-1,2-Dichloroethene	**41.5**	ug/kg	6.9	1.9	1		12/19/15 15:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.9	2.1	1		12/19/15 15:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.9	2.1	1		12/19/15 15:12	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	208	167	1		12/19/15 15:12	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (8-10) **Lab ID: 92279773020** Collected: 12/14/15 12:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.9	2.8	1		12/19/15 15:12	87-68-3	
2-Hexanone	ND	ug/kg	69.4	5.4	1		12/19/15 15:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	99-87-6	
Methylene Chloride	**36.2**	ug/kg	27.8	4.2	1		12/19/15 15:12	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	69.4	5.1	1		12/19/15 15:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.9	2.1	1		12/19/15 15:12	1634-04-4	
Naphthalene	ND	ug/kg	6.9	1.7	1		12/19/15 15:12	91-20-3	
n-Propylbenzene	ND	ug/kg	6.9	2.4	1		12/19/15 15:12	103-65-1	
Styrene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.9	2.9	1		12/19/15 15:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	79-34-5	
Tetrachloroethene	**2990**	ug/kg	347	118	50		12/20/15 15:32	127-18-4	
Toluene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.9	3.1	1		12/19/15 15:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.9	2.2	1		12/19/15 15:12	120-82-1	
1,1,1-Trichloroethane	**58.5**	ug/kg	6.9	2.5	1		12/19/15 15:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.9	2.9	1		12/19/15 15:12	79-00-5	
Trichloroethene	**120**	ug/kg	6.9	2.9	1		12/19/15 15:12	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.9	3.1	1		12/19/15 15:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.9	2.2	1		12/19/15 15:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.9	2.8	1		12/19/15 15:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.9	2.5	1		12/19/15 15:12	108-67-8	
Vinyl acetate	ND	ug/kg	69.4	12.2	1		12/19/15 15:12	108-05-4	
Vinyl chloride	ND	ug/kg	13.9	2.5	1		12/19/15 15:12	75-01-4	
Xylene (Total)	ND	ug/kg	13.9	5.0	1		12/19/15 15:12	1330-20-7	
m&p-Xylene	ND	ug/kg	13.9	5.0	1		12/19/15 15:12	179601-23-1	
o-Xylene	ND	ug/kg	6.9	2.6	1		12/19/15 15:12	95-47-6	
Surrogates									
Toluene-d8 (S)	84	%	70-130		1		12/19/15 15:12	2037-26-5	IO
4-Bromofluorobenzene (S)	70	%	70-130		1		12/19/15 15:12	460-00-4	
1,2-Dichloroethane-d4 (S)	150	%	70-132		1		12/19/15 15:12	17060-07-0	S1
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.3**	%	0.10	0.10	1		12/16/15 06:47		

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (18-20) **Lab ID: 92279773021** Collected: 12/14/15 12:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**22.2**	ug/kg	11.9	11.9	1		12/18/15 15:01	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	77	%	50-150		1		12/18/15 15:01	17060-07-0	
Toluene-d8 (S)	118	%	50-150		1		12/18/15 15:01	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**29.1J**	ug/kg	118	11.8	1		12/19/15 15:31	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		12/19/15 15:31	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.4	1		12/19/15 15:31	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		12/19/15 15:31	75-25-2	
Bromomethane	ND	ug/kg	11.8	3.0	1		12/19/15 15:31	74-83-9	
2-Butanone (MEK)	ND	ug/kg	118	3.4	1		12/19/15 15:31	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		12/19/15 15:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.4	1		12/19/15 15:31	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		12/19/15 15:31	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	108-90-7	
Chloroethane	ND	ug/kg	11.8	2.8	1		12/19/15 15:31	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		12/19/15 15:31	67-66-3	
Chloromethane	ND	ug/kg	11.8	2.8	1		12/19/15 15:31	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.3	1		12/19/15 15:31	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	106-93-4	
Dibromomethane	ND	ug/kg	5.9	3.0	1		12/19/15 15:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.4	1		12/19/15 15:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.8	4.3	1		12/19/15 15:31	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		12/19/15 15:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		12/19/15 15:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.7	1		12/19/15 15:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/19/15 15:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/19/15 15:31	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	177	142	1		12/19/15 15:31	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (18-20) **Lab ID: 92279773021** Collected: 12/14/15 12:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.4	1		12/19/15 15:31	87-68-3	
2-Hexanone	ND	ug/kg	59.1	4.6	1		12/19/15 15:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	99-87-6	
Methylene Chloride	**28.0**	ug/kg	23.6	3.5	1		12/19/15 15:31	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.1	4.4	1		12/19/15 15:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		12/19/15 15:31	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		12/19/15 15:31	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		12/19/15 15:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		12/19/15 15:31	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		12/19/15 15:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		12/19/15 15:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		12/19/15 15:31	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		12/19/15 15:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		12/19/15 15:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		12/19/15 15:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.4	1		12/19/15 15:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 15:31	108-67-8	
Vinyl acetate	ND	ug/kg	59.1	10.4	1		12/19/15 15:31	108-05-4	
Vinyl chloride	ND	ug/kg	11.8	2.1	1		12/19/15 15:31	75-01-4	
Xylene (Total)	ND	ug/kg	11.8	4.3	1		12/19/15 15:31	1330-20-7	
m&p-Xylene	ND	ug/kg	11.8	4.3	1		12/19/15 15:31	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		12/19/15 15:31	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/19/15 15:31	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/19/15 15:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		12/19/15 15:31	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.4**	%	0.10	0.10	1		12/16/15 06:48		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (0-2) **Lab ID: 92279773022** Collected: 12/14/15 12:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.5	11.5	1		12/18/15 15:22	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	78	%	50-150		1		12/18/15 15:22	17060-07-0	
Toluene-d8 (S)	119	%	50-150		1		12/18/15 15:22	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	122	12.2	1		12/19/15 15:51	67-64-1	
Benzene	ND	ug/kg	6.1	1.9	1		12/19/15 15:51	71-43-2	
Bromobenzene	ND	ug/kg	6.1	2.4	1		12/19/15 15:51	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	74-97-5	
Bromodichloromethane	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	75-27-4	
Bromoform	ND	ug/kg	6.1	2.8	1		12/19/15 15:51	75-25-2	
Bromomethane	ND	ug/kg	12.2	3.0	1		12/19/15 15:51	74-83-9	
2-Butanone (MEK)	ND	ug/kg	122	3.5	1		12/19/15 15:51	78-93-3	
n-Butylbenzene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	1.9	1		12/19/15 15:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	2.4	1		12/19/15 15:51	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	3.2	1		12/19/15 15:51	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	108-90-7	
Chloroethane	ND	ug/kg	12.2	2.9	1		12/19/15 15:51	75-00-3	
Chloroform	ND	ug/kg	6.1	1.9	1		12/19/15 15:51	67-66-3	
Chloromethane	ND	ug/kg	12.2	2.9	1		12/19/15 15:51	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	4.4	1		12/19/15 15:51	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	106-93-4	
Dibromomethane	ND	ug/kg	6.1	3.0	1		12/19/15 15:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	2.4	1		12/19/15 15:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.2	4.4	1		12/19/15 15:51	75-71-8	
1,1-Dichloroethane	**46.6**	ug/kg	6.1	1.8	1		12/19/15 15:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	2.7	1		12/19/15 15:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	75-35-4	
cis-1,2-Dichloroethene	**66.0**	ug/kg	6.1	1.7	1		12/19/15 15:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.1	1.8	1		12/19/15 15:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1.8	1		12/19/15 15:51	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	183	146	1		12/19/15 15:51	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (0-2) **Lab ID: 92279773022** Collected: 12/14/15 12:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	2.4	1		12/19/15 15:51	87-68-3	
2-Hexanone	ND	ug/kg	60.9	4.8	1		12/19/15 15:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	99-87-6	
Methylene Chloride	**11.4J**	ug/kg	24.4	3.7	1		12/19/15 15:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.9	4.5	1		12/19/15 15:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.8	1		12/19/15 15:51	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1.5	1		12/19/15 15:51	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	2.1	1		12/19/15 15:51	103-65-1	
Styrene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	2.6	1		12/19/15 15:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	79-34-5	
Tetrachloroethene	**29.7**	ug/kg	6.1	2.1	1		12/19/15 15:51	127-18-4	
Toluene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	2.7	1		12/19/15 15:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.9	1		12/19/15 15:51	120-82-1	
1,1,1-Trichloroethane	**23.1**	ug/kg	6.1	2.2	1		12/19/15 15:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	2.6	1		12/19/15 15:51	79-00-5	
Trichloroethene	**4.5J**	ug/kg	6.1	2.6	1		12/19/15 15:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	2.7	1		12/19/15 15:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.9	1		12/19/15 15:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	2.4	1		12/19/15 15:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	2.2	1		12/19/15 15:51	108-67-8	
Vinyl acetate	ND	ug/kg	60.9	10.7	1		12/19/15 15:51	108-05-4	
Vinyl chloride	ND	ug/kg	12.2	2.2	1		12/19/15 15:51	75-01-4	
Xylene (Total)	ND	ug/kg	12.2	4.4	1		12/19/15 15:51	1330-20-7	
m&p-Xylene	ND	ug/kg	12.2	4.4	1		12/19/15 15:51	179601-23-1	
o-Xylene	ND	ug/kg	6.1	2.3	1		12/19/15 15:51	95-47-6	
Surrogates									
Toluene-d8 (S)	95	%	70-130		1		12/19/15 15:51	2037-26-5	
4-Bromofluorobenzene (S)	88	%	70-130		1		12/19/15 15:51	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		12/19/15 15:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.8**	%	0.10	0.10	1		12/16/15 06:48		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (13-15) **Lab ID: 92279773023** Collected: 12/14/15 12:55 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**14.6**	ug/kg	11.6	11.6	1		12/18/15 15:42	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	81	%	50-150		1		12/18/15 15:42	17060-07-0	
Toluene-d8 (S)	121	%	50-150		1		12/18/15 15:42	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**19.8J**	ug/kg	124	12.4	1		12/19/15 16:11	67-64-1	
Benzene	ND	ug/kg	6.2	2.0	1		12/19/15 16:11	71-43-2	
Bromobenzene	ND	ug/kg	6.2	2.5	1		12/19/15 16:11	108-86-1	
Bromochloromethane	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	74-97-5	
Bromodichloromethane	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	75-27-4	
Bromoform	ND	ug/kg	6.2	2.8	1		12/19/15 16:11	75-25-2	
Bromomethane	ND	ug/kg	12.4	3.1	1		12/19/15 16:11	74-83-9	
2-Butanone (MEK)	ND	ug/kg	124	3.6	1		12/19/15 16:11	78-93-3	
n-Butylbenzene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.2	2.0	1		12/19/15 16:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.2	2.5	1		12/19/15 16:11	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.2	3.2	1		12/19/15 16:11	56-23-5	
Chlorobenzene	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	108-90-7	
Chloroethane	ND	ug/kg	12.4	3.0	1		12/19/15 16:11	75-00-3	
Chloroform	ND	ug/kg	6.2	2.0	1		12/19/15 16:11	67-66-3	
Chloromethane	ND	ug/kg	12.4	3.0	1		12/19/15 16:11	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.2	4.4	1		12/19/15 16:11	96-12-8	
Dibromochloromethane	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	106-93-4	
Dibromomethane	ND	ug/kg	6.2	3.1	1		12/19/15 16:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.2	2.5	1		12/19/15 16:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.4	4.4	1		12/19/15 16:11	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.2	1.9	1		12/19/15 16:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.2	2.7	1		12/19/15 16:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.2	1.7	1		12/19/15 16:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.2	1.9	1		12/19/15 16:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.2	1.9	1		12/19/15 16:11	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	185	148	1		12/19/15 16:11	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (13-15) **Lab ID: 92279773023** Collected: 12/14/15 12:55 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.2	2.5	1		12/19/15 16:11	87-68-3	
2-Hexanone	ND	ug/kg	61.8	4.8	1		12/19/15 16:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	99-87-6	
Methylene Chloride	**30.9**	ug/kg	24.7	3.7	1		12/19/15 16:11	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61.8	4.6	1		12/19/15 16:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.2	1.9	1		12/19/15 16:11	1634-04-4	
Naphthalene	ND	ug/kg	6.2	1.5	1		12/19/15 16:11	91-20-3	
n-Propylbenzene	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	103-65-1	
Styrene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.2	2.6	1		12/19/15 16:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	79-34-5	
Tetrachloroethene	ND	ug/kg	6.2	2.1	1		12/19/15 16:11	127-18-4	
Toluene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.2	2.7	1		12/19/15 16:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.2	2.0	1		12/19/15 16:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.2	2.6	1		12/19/15 16:11	79-00-5	
Trichloroethene	ND	ug/kg	6.2	2.6	1		12/19/15 16:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.2	2.7	1		12/19/15 16:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.2	2.0	1		12/19/15 16:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.2	2.5	1		12/19/15 16:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.2	2.2	1		12/19/15 16:11	108-67-8	
Vinyl acetate	ND	ug/kg	61.8	10.9	1		12/19/15 16:11	108-05-4	
Vinyl chloride	ND	ug/kg	12.4	2.2	1		12/19/15 16:11	75-01-4	
Xylene (Total)	ND	ug/kg	12.4	4.4	1		12/19/15 16:11	1330-20-7	
m&p-Xylene	ND	ug/kg	12.4	4.4	1		12/19/15 16:11	179601-23-1	
o-Xylene	ND	ug/kg	6.2	2.3	1		12/19/15 16:11	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/19/15 16:11	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		12/19/15 16:11	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		12/19/15 16:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.9**	%	0.10	0.10	1		12/16/15 06:48		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (3-5) **Lab ID: 92279773024** Collected: 12/14/15 12:55 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	11.2	11.2	1		12/18/15 16:02	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	84	%	50-150		1		12/18/15 16:02	17060-07-0	
Toluene-d8 (S)	130	%	50-150		1		12/18/15 16:02	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	113	11.3	1		12/19/15 16:31	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		12/19/15 16:31	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.3	1		12/19/15 16:31	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		12/19/15 16:31	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		12/19/15 16:31	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		12/19/15 16:31	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		12/19/15 16:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.3	1		12/19/15 16:31	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		12/19/15 16:31	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		12/19/15 16:31	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		12/19/15 16:31	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		12/19/15 16:31	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.1	1		12/19/15 16:31	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		12/19/15 16:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.3	1		12/19/15 16:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		12/19/15 16:31	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1.7	1		12/19/15 16:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.5	1		12/19/15 16:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1.6	1		12/19/15 16:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/19/15 16:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/19/15 16:31	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	169	136	1		12/19/15 16:31	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20-A (3-5) **Lab ID: 92279773024** Collected: 12/14/15 12:55 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.3	1		12/19/15 16:31	87-68-3	
2-Hexanone	ND	ug/kg	56.5	4.4	1		12/19/15 16:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	99-87-6	
Methylene Chloride	**17.9J**	ug/kg	22.6	3.4	1		12/19/15 16:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.5	4.2	1		12/19/15 16:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		12/19/15 16:31	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.4	1		12/19/15 16:31	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.4	1		12/19/15 16:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	79-34-5	
Tetrachloroethene	ND	ug/kg	5.6	1.9	1		12/19/15 16:31	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.5	1		12/19/15 16:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		12/19/15 16:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.4	1		12/19/15 16:31	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.4	1		12/19/15 16:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.5	1		12/19/15 16:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		12/19/15 16:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.3	1		12/19/15 16:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 16:31	108-67-8	
Vinyl acetate	ND	ug/kg	56.5	9.9	1		12/19/15 16:31	108-05-4	
Vinyl chloride	ND	ug/kg	11.3	2.0	1		12/19/15 16:31	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		12/19/15 16:31	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		12/19/15 16:31	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		12/19/15 16:31	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/19/15 16:31	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/19/15 16:31	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-132		1		12/19/15 16:31	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.3**	%	0.10	0.10	1		12/16/15 06:49		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20A (28-30) **Lab ID: 92279773025** Collected: 12/14/15 13:05 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**134**	ug/kg	10.2	10.2	1		12/18/15 16:22	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	88	%	50-150		1		12/18/15 16:22	17060-07-0	
Toluene-d8 (S)	136	%	50-150		1		12/18/15 16:22	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**53.9J**	ug/kg	108	10.8	1		12/19/15 16:51	67-64-1	
Benzene	ND	ug/kg	5.4	1.7	1		12/19/15 16:51	71-43-2	
Bromobenzene	ND	ug/kg	5.4	2.2	1		12/19/15 16:51	108-86-1	
Bromochloromethane	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	74-97-5	
Bromodichloromethane	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	75-27-4	
Bromoform	ND	ug/kg	5.4	2.5	1		12/19/15 16:51	75-25-2	
Bromomethane	ND	ug/kg	10.8	2.7	1		12/19/15 16:51	74-83-9	
2-Butanone (MEK)	ND	ug/kg	108	3.1	1		12/19/15 16:51	78-93-3	
n-Butylbenzene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.4	1.7	1		12/19/15 16:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.4	2.2	1		12/19/15 16:51	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.4	2.8	1		12/19/15 16:51	56-23-5	
Chlorobenzene	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	108-90-7	
Chloroethane	ND	ug/kg	10.8	2.6	1		12/19/15 16:51	75-00-3	
Chloroform	ND	ug/kg	5.4	1.7	1		12/19/15 16:51	67-66-3	
Chloromethane	ND	ug/kg	10.8	2.6	1		12/19/15 16:51	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.4	3.9	1		12/19/15 16:51	96-12-8	
Dibromochloromethane	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	106-93-4	
Dibromomethane	ND	ug/kg	5.4	2.7	1		12/19/15 16:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.4	2.2	1		12/19/15 16:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.8	3.9	1		12/19/15 16:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.4	1.6	1		12/19/15 16:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.4	2.4	1		12/19/15 16:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.4	1.5	1		12/19/15 16:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.4	1.6	1		12/19/15 16:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.4	1.6	1		12/19/15 16:51	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	162	130	1		12/19/15 16:51	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20A (28-30) **Lab ID: 92279773025** Collected: 12/14/15 13:05 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.4	2.2	1		12/19/15 16:51	87-68-3	
2-Hexanone	ND	ug/kg	54.0	4.2	1		12/19/15 16:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	99-87-6	
Methylene Chloride	**46.3**	ug/kg	21.6	3.2	1		12/19/15 16:51	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54.0	4.0	1		12/19/15 16:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.4	1.6	1		12/19/15 16:51	1634-04-4	
Naphthalene	ND	ug/kg	5.4	1.3	1		12/19/15 16:51	91-20-3	
n-Propylbenzene	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	103-65-1	
Styrene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.4	2.3	1		12/19/15 16:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	79-34-5	
Tetrachloroethene	ND	ug/kg	5.4	1.8	1		12/19/15 16:51	127-18-4	
Toluene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.4	2.4	1		12/19/15 16:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.4	1.7	1		12/19/15 16:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.4	2.3	1		12/19/15 16:51	79-00-5	
Trichloroethene	ND	ug/kg	5.4	2.3	1		12/19/15 16:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.4	2.4	1		12/19/15 16:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.4	1.7	1		12/19/15 16:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.4	2.2	1		12/19/15 16:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.4	1.9	1		12/19/15 16:51	108-67-8	
Vinyl acetate	ND	ug/kg	54.0	9.5	1		12/19/15 16:51	108-05-4	
Vinyl chloride	ND	ug/kg	10.8	1.9	1		12/19/15 16:51	75-01-4	
Xylene (Total)	ND	ug/kg	10.8	3.9	1		12/19/15 16:51	1330-20-7	
m&p-Xylene	ND	ug/kg	10.8	3.9	1		12/19/15 16:51	179601-23-1	
o-Xylene	ND	ug/kg	5.4	2.1	1		12/19/15 16:51	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/19/15 16:51	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/19/15 16:51	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		12/19/15 16:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.1**	%	0.10	0.10	1		12/16/15 06:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20A (23-25) **Lab ID: 92279773026** Collected: 12/14/15 13:05 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**47.0**	ug/kg	13.7	13.7	1		12/18/15 16:43	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	69	%	50-150		1		12/18/15 16:43	17060-07-0	
Toluene-d8 (S)	103	%	50-150		1		12/18/15 16:43	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	127	12.7	1		12/20/15 17:11	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		12/20/15 17:11	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		12/20/15 17:11	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		12/20/15 17:11	75-25-2	
Bromomethane	ND	ug/kg	12.7	3.2	1		12/20/15 17:11	74-83-9	
2-Butanone (MEK)	ND	ug/kg	127	3.7	1		12/20/15 17:11	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		12/20/15 17:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		12/20/15 17:11	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		12/20/15 17:11	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	108-90-7	
Chloroethane	ND	ug/kg	12.7	3.0	1		12/20/15 17:11	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		12/20/15 17:11	67-66-3	
Chloromethane	ND	ug/kg	12.7	3.0	1		12/20/15 17:11	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.6	1		12/20/15 17:11	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.2	1		12/20/15 17:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		12/20/15 17:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.7	4.6	1		12/20/15 17:11	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		12/20/15 17:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		12/20/15 17:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	75-35-4	
cis-1,2-Dichloroethene	**2.8J**	ug/kg	6.3	1.8	1		12/20/15 17:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/20/15 17:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/20/15 17:11	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	190	152	1		12/20/15 17:11	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-20A (23-25) **Lab ID: 92279773026** Collected: 12/14/15 13:05 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		12/20/15 17:11	87-68-3	
2-Hexanone	ND	ug/kg	63.4	4.9	1		12/20/15 17:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	99-87-6	
Methylene Chloride	**5.6J**	ug/kg	25.4	3.8	1		12/20/15 17:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.4	4.7	1		12/20/15 17:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		12/20/15 17:11	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		12/20/15 17:11	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.7	1		12/20/15 17:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.2	1		12/20/15 17:11	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		12/20/15 17:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		12/20/15 17:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.7	1		12/20/15 17:11	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.7	1		12/20/15 17:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		12/20/15 17:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		12/20/15 17:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		12/20/15 17:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 17:11	108-67-8	
Vinyl acetate	ND	ug/kg	63.4	11.2	1		12/20/15 17:11	108-05-4	
Vinyl chloride	ND	ug/kg	12.7	2.3	1		12/20/15 17:11	75-01-4	
Xylene (Total)	ND	ug/kg	12.7	4.6	1		12/20/15 17:11	1330-20-7	
m&p-Xylene	ND	ug/kg	12.7	4.6	1		12/20/15 17:11	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		12/20/15 17:11	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/20/15 17:11	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/20/15 17:11	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-132		1		12/20/15 17:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.6**	%	0.10	0.10	1		12/16/15 07:00		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-04 **Lab ID: 92279773027** Collected: 12/14/15 13:15 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.0	10.0	1		12/18/15 17:03	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	84	%	50-150		1		12/18/15 17:03	17060-07-0	
Toluene-d8 (S)	128	%	50-150		1		12/18/15 17:03	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**23.9J**	ug/kg	100	10.0	1		12/20/15 17:31	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/20/15 17:31	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/20/15 17:31	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/20/15 17:31	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/20/15 17:31	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		12/20/15 17:31	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/20/15 17:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/20/15 17:31	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/20/15 17:31	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/20/15 17:31	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/20/15 17:31	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/20/15 17:31	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/20/15 17:31	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/20/15 17:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/20/15 17:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/20/15 17:31	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/20/15 17:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/20/15 17:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/20/15 17:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/20/15 17:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/20/15 17:31	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/20/15 17:31	123-91-1	

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-04 **Lab ID: 92279773027** Collected: 12/14/15 13:15 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/20/15 17:31	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/20/15 17:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	99-87-6	
Methylene Chloride	**44.6**	ug/kg	20.0	3.0	1		12/20/15 17:31	75-09-2	C0,C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/20/15 17:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/20/15 17:31	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/20/15 17:31	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/20/15 17:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/20/15 17:31	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/20/15 17:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/20/15 17:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/20/15 17:31	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/20/15 17:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/20/15 17:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/20/15 17:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/20/15 17:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/20/15 17:31	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/20/15 17:31	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/20/15 17:31	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/20/15 17:31	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/20/15 17:31	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/20/15 17:31	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/20/15 17:31	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/20/15 17:31	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-132		1		12/20/15 17:31	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (23-25) **Lab ID: 92279773028** Collected: 12/14/15 13:15 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**76.4**	ug/kg	11.8	11.8	1		12/18/15 17:23	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	77	%	50-150		1		12/18/15 17:23	17060-07-0	
Toluene-d8 (S)	118	%	50-150		1		12/18/15 17:23	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**48.7J**	ug/kg	113	11.3	1		12/20/15 17:51	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		12/20/15 17:51	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.3	1		12/20/15 17:51	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		12/20/15 17:51	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		12/20/15 17:51	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		12/20/15 17:51	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		12/20/15 17:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.3	1		12/20/15 17:51	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		12/20/15 17:51	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		12/20/15 17:51	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		12/20/15 17:51	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		12/20/15 17:51	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.1	1		12/20/15 17:51	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		12/20/15 17:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.3	1		12/20/15 17:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		12/20/15 17:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1.7	1		12/20/15 17:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.5	1		12/20/15 17:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1.6	1		12/20/15 17:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/20/15 17:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/20/15 17:51	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	169	135	1		12/20/15 17:51	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (23-25) **Lab ID: 92279773028** Collected: 12/14/15 13:15 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.3	1		12/20/15 17:51	87-68-3	
2-Hexanone	ND	ug/kg	56.3	4.4	1		12/20/15 17:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	99-87-6	
Methylene Chloride	**26.3**	ug/kg	22.5	3.4	1		12/20/15 17:51	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.3	4.2	1		12/20/15 17:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		12/20/15 17:51	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.4	1		12/20/15 17:51	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.4	1		12/20/15 17:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	79-34-5	
Tetrachloroethene	ND	ug/kg	5.6	1.9	1		12/20/15 17:51	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.5	1		12/20/15 17:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		12/20/15 17:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.4	1		12/20/15 17:51	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.4	1		12/20/15 17:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.5	1		12/20/15 17:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		12/20/15 17:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.3	1		12/20/15 17:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		12/20/15 17:51	108-67-8	
Vinyl acetate	ND	ug/kg	56.3	9.9	1		12/20/15 17:51	108-05-4	
Vinyl chloride	ND	ug/kg	11.3	2.0	1		12/20/15 17:51	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		12/20/15 17:51	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		12/20/15 17:51	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		12/20/15 17:51	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/20/15 17:51	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/20/15 17:51	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		1		12/20/15 17:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.2**	%	0.10	0.10	1		12/16/15 06:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (18-20) **Lab ID: 92279773029** Collected: 12/14/15 13:20 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**20.8**	ug/kg	11.0	11.0	1		12/18/15 17:43	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	83	%	50-150		1		12/18/15 17:43	17060-07-0	
Toluene-d8 (S)	123	%	50-150		1		12/18/15 17:43	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**34.7J**	ug/kg	126	12.6	1		12/19/15 18:10	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		12/19/15 18:10	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		12/19/15 18:10	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		12/19/15 18:10	75-25-2	
Bromomethane	ND	ug/kg	12.6	3.2	1		12/19/15 18:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	126	3.7	1		12/19/15 18:10	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		12/19/15 18:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		12/19/15 18:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		12/19/15 18:10	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	108-90-7	
Chloroethane	ND	ug/kg	12.6	3.0	1		12/19/15 18:10	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		12/19/15 18:10	67-66-3	
Chloromethane	ND	ug/kg	12.6	3.0	1		12/19/15 18:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.6	1		12/19/15 18:10	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.2	1		12/19/15 18:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		12/19/15 18:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.6	4.6	1		12/19/15 18:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		12/19/15 18:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		12/19/15 18:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	75-35-4	
cis-1,2-Dichloroethene	**3.1J**	ug/kg	6.3	1.8	1		12/19/15 18:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/19/15 18:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/19/15 18:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	190	152	1		12/19/15 18:10	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (18-20) **Lab ID: 92279773029** Collected: 12/14/15 13:20 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		12/19/15 18:10	87-68-3	
2-Hexanone	ND	ug/kg	63.2	4.9	1		12/19/15 18:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	99-87-6	
Methylene Chloride	**34.2**	ug/kg	25.3	3.8	1		12/19/15 18:10	75-09-2	C9
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.2	4.7	1		12/19/15 18:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		12/19/15 18:10	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		12/19/15 18:10	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.7	1		12/19/15 18:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.2	1		12/19/15 18:10	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		12/19/15 18:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		12/19/15 18:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.7	1		12/19/15 18:10	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.7	1		12/19/15 18:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		12/19/15 18:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		12/19/15 18:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		12/19/15 18:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		12/19/15 18:10	108-67-8	
Vinyl acetate	ND	ug/kg	63.2	11.1	1		12/19/15 18:10	108-05-4	
Vinyl chloride	ND	ug/kg	12.6	2.3	1		12/19/15 18:10	75-01-4	
Xylene (Total)	ND	ug/kg	12.6	4.6	1		12/19/15 18:10	1330-20-7	
m&p-Xylene	ND	ug/kg	12.6	4.6	1		12/19/15 18:10	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		12/19/15 18:10	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/19/15 18:10	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		12/19/15 18:10	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-132		1		12/19/15 18:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.3**	%	0.10	0.10	1		12/16/15 06:50		

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (13-15) **Lab ID: 92279773030** Collected: 12/14/15 13:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	296	296	25		12/18/15 18:04	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	77	%	50-150		25		12/18/15 18:04	17060-07-0	D3
Toluene-d8 (S)	143	%	50-150		25		12/18/15 18:04	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	22800	2280	200		12/19/15 18:29	67-64-1	
Benzene	ND	ug/kg	1140	365	200		12/19/15 18:29	71-43-2	
Bromobenzene	ND	ug/kg	1140	456	200		12/19/15 18:29	108-86-1	
Bromochloromethane	ND	ug/kg	1140	387	200		12/19/15 18:29	74-97-5	
Bromodichloromethane	ND	ug/kg	1140	433	200		12/19/15 18:29	75-27-4	
Bromoform	ND	ug/kg	1140	524	200		12/19/15 18:29	75-25-2	
Bromomethane	ND	ug/kg	2280	570	200		12/19/15 18:29	74-83-9	
2-Butanone (MEK)	ND	ug/kg	22800	661	200		12/19/15 18:29	78-93-3	
n-Butylbenzene	ND	ug/kg	1140	410	200		12/19/15 18:29	104-51-8	
sec-Butylbenzene	ND	ug/kg	1140	365	200		12/19/15 18:29	135-98-8	
tert-Butylbenzene	ND	ug/kg	1140	456	200		12/19/15 18:29	98-06-6	
Carbon tetrachloride	ND	ug/kg	1140	593	200		12/19/15 18:29	56-23-5	
Chlorobenzene	ND	ug/kg	1140	433	200		12/19/15 18:29	108-90-7	
Chloroethane	ND	ug/kg	2280	547	200		12/19/15 18:29	75-00-3	
Chloroform	ND	ug/kg	1140	365	200		12/19/15 18:29	67-66-3	
Chloromethane	ND	ug/kg	2280	547	200		12/19/15 18:29	74-87-3	
2-Chlorotoluene	ND	ug/kg	1140	387	200		12/19/15 18:29	95-49-8	
4-Chlorotoluene	ND	ug/kg	1140	410	200		12/19/15 18:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	1140	820	200		12/19/15 18:29	96-12-8	
Dibromochloromethane	ND	ug/kg	1140	410	200		12/19/15 18:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	1140	410	200		12/19/15 18:29	106-93-4	
Dibromomethane	ND	ug/kg	1140	570	200		12/19/15 18:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	1140	433	200		12/19/15 18:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	1140	456	200		12/19/15 18:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	1140	387	200		12/19/15 18:29	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	2280	820	200		12/19/15 18:29	75-71-8	
1,1-Dichloroethane	ND	ug/kg	1140	342	200		12/19/15 18:29	75-34-3	
1,2-Dichloroethane	ND	ug/kg	1140	501	200		12/19/15 18:29	107-06-2	
1,1-Dichloroethene	ND	ug/kg	1140	410	200		12/19/15 18:29	75-35-4	
cis-1,2-Dichloroethene	**1670**	ug/kg	1140	319	200		12/19/15 18:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	1140	433	200		12/19/15 18:29	156-60-5	
1,2-Dichloropropane	ND	ug/kg	1140	387	200		12/19/15 18:29	78-87-5	
1,3-Dichloropropane	ND	ug/kg	1140	433	200		12/19/15 18:29	142-28-9	
2,2-Dichloropropane	ND	ug/kg	1140	387	200		12/19/15 18:29	594-20-7	
1,1-Dichloropropene	ND	ug/kg	1140	342	200		12/19/15 18:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	1140	410	200		12/19/15 18:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	1140	342	200		12/19/15 18:29	10061-02-6	
Diisopropyl ether	ND	ug/kg	1140	387	200		12/19/15 18:29	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	34200	27300	200		12/19/15 18:29	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (13-15) **Lab ID: 92279773030** Collected: 12/14/15 13:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	1140	410	200		12/19/15 18:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	1140	456	200		12/19/15 18:29	87-68-3	
2-Hexanone	ND	ug/kg	11400	889	200		12/19/15 18:29	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	1140	433	200		12/19/15 18:29	98-82-8	
p-Isopropyltoluene	ND	ug/kg	1140	387	200		12/19/15 18:29	99-87-6	
Methylene Chloride	ND	ug/kg	4560	684	200		12/19/15 18:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11400	843	200		12/19/15 18:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	1140	342	200		12/19/15 18:29	1634-04-4	
Naphthalene	ND	ug/kg	1140	273	200		12/19/15 18:29	91-20-3	
n-Propylbenzene	ND	ug/kg	1140	387	200		12/19/15 18:29	103-65-1	
Styrene	ND	ug/kg	1140	410	200		12/19/15 18:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	1140	479	200		12/19/15 18:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	1140	433	200		12/19/15 18:29	79-34-5	
Tetrachloroethene	**15300**	ug/kg	1140	387	200		12/19/15 18:29	127-18-4	
Toluene	ND	ug/kg	1140	410	200		12/19/15 18:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	1140	501	200		12/19/15 18:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	1140	365	200		12/19/15 18:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	1140	410	200		12/19/15 18:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	1140	479	200		12/19/15 18:29	79-00-5	
Trichloroethene	ND	ug/kg	1140	479	200		12/19/15 18:29	79-01-6	
Trichlorofluoromethane	ND	ug/kg	1140	501	200		12/19/15 18:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	1140	365	200		12/19/15 18:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	1140	456	200		12/19/15 18:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	1140	410	200		12/19/15 18:29	108-67-8	
Vinyl acetate	ND	ug/kg	11400	2010	200		12/19/15 18:29	108-05-4	
Vinyl chloride	ND	ug/kg	2280	410	200		12/19/15 18:29	75-01-4	
Xylene (Total)	ND	ug/kg	2280	820	200		12/19/15 18:29	1330-20-7	
m&p-Xylene	ND	ug/kg	2280	820	200		12/19/15 18:29	179601-23-1	
o-Xylene	ND	ug/kg	1140	433	200		12/19/15 18:29	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		200		12/19/15 18:29	2037-26-5	D3
4-Bromofluorobenzene (S)	98	%	70-130		200		12/19/15 18:29	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		200		12/19/15 18:29	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.10	0.10	1		12/16/15 06:50		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (28-30) **Lab ID: 92279773031** Collected: 12/14/15 13:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**142**	ug/kg	12.0	12.0	1		12/18/15 18:24	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	78	%	50-150		1		12/18/15 18:24	17060-07-0	
Toluene-d8 (S)	116	%	50-150		1		12/18/15 18:24	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**117J**	ug/kg	131	13.1	1		12/19/15 18:49	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		12/19/15 18:49	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		12/19/15 18:49	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		12/19/15 18:49	75-25-2	
Bromomethane	ND	ug/kg	13.1	3.3	1		12/19/15 18:49	74-83-9	
2-Butanone (MEK)	ND	ug/kg	131	3.8	1		12/19/15 18:49	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		12/19/15 18:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		12/19/15 18:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		12/19/15 18:49	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	108-90-7	
Chloroethane	ND	ug/kg	13.1	3.1	1		12/19/15 18:49	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		12/19/15 18:49	67-66-3	
Chloromethane	ND	ug/kg	13.1	3.1	1		12/19/15 18:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.7	1		12/19/15 18:49	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		12/19/15 18:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		12/19/15 18:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.1	4.7	1		12/19/15 18:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		12/19/15 18:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		12/19/15 18:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.8	1		12/19/15 18:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		12/19/15 18:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		12/19/15 18:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	197	157	1		12/19/15 18:49	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (28-30) **Lab ID: 92279773031** Collected: 12/14/15 13:30 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		12/19/15 18:49	87-68-3	
2-Hexanone	ND	ug/kg	65.5	5.1	1		12/19/15 18:49	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	99-87-6	
Methylene Chloride	**25.8J**	ug/kg	26.2	3.9	1		12/19/15 18:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.5	4.8	1		12/19/15 18:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		12/19/15 18:49	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		12/19/15 18:49	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		12/19/15 18:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		12/19/15 18:49	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		12/19/15 18:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		12/19/15 18:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		12/19/15 18:49	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		12/19/15 18:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		12/19/15 18:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		12/19/15 18:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		12/19/15 18:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		12/19/15 18:49	108-67-8	
Vinyl acetate	ND	ug/kg	65.5	11.5	1		12/19/15 18:49	108-05-4	
Vinyl chloride	ND	ug/kg	13.1	2.4	1		12/19/15 18:49	75-01-4	
Xylene (Total)	ND	ug/kg	13.1	4.7	1		12/19/15 18:49	1330-20-7	
m&p-Xylene	ND	ug/kg	13.1	4.7	1		12/19/15 18:49	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		12/19/15 18:49	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/19/15 18:49	2037-26-5	1g
4-Bromofluorobenzene (S)	105	%	70-130		1		12/19/15 18:49	460-00-4	
1,2-Dichloroethane-d4 (S)	124	%	70-132		1		12/19/15 18:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.6**	%	0.10	0.10	1		12/16/15 06:51		

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (8-10) **Lab ID: 92279773032** Collected: 12/14/15 13:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	447	447	25		12/18/15 18:44	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	55	%	50-150		25		12/18/15 18:44	17060-07-0	D3
Toluene-d8 (S)	91	%	50-150		25		12/18/15 18:44	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	2680	268	25		12/20/15 18:11	67-64-1	
Benzene	ND	ug/kg	134	42.9	25		12/20/15 18:11	71-43-2	
Bromobenzene	ND	ug/kg	134	53.6	25		12/20/15 18:11	108-86-1	
Bromochloromethane	ND	ug/kg	134	45.5	25		12/20/15 18:11	74-97-5	
Bromodichloromethane	ND	ug/kg	134	50.9	25		12/20/15 18:11	75-27-4	
Bromoform	ND	ug/kg	134	61.6	25		12/20/15 18:11	75-25-2	
Bromomethane	ND	ug/kg	268	67.0	25		12/20/15 18:11	74-83-9	
2-Butanone (MEK)	ND	ug/kg	2680	77.7	25		12/20/15 18:11	78-93-3	
n-Butylbenzene	ND	ug/kg	134	48.2	25		12/20/15 18:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	134	42.9	25		12/20/15 18:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	134	53.6	25		12/20/15 18:11	98-06-6	
Carbon tetrachloride	ND	ug/kg	134	69.7	25		12/20/15 18:11	56-23-5	
Chlorobenzene	ND	ug/kg	134	50.9	25		12/20/15 18:11	108-90-7	
Chloroethane	ND	ug/kg	268	64.3	25		12/20/15 18:11	75-00-3	
Chloroform	ND	ug/kg	134	42.9	25		12/20/15 18:11	67-66-3	
Chloromethane	ND	ug/kg	268	64.3	25		12/20/15 18:11	74-87-3	
2-Chlorotoluene	ND	ug/kg	134	45.5	25		12/20/15 18:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	134	48.2	25		12/20/15 18:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	134	96.5	25		12/20/15 18:11	96-12-8	
Dibromochloromethane	ND	ug/kg	134	48.2	25		12/20/15 18:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	134	48.2	25		12/20/15 18:11	106-93-4	
Dibromomethane	ND	ug/kg	134	67.0	25		12/20/15 18:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	134	50.9	25		12/20/15 18:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	134	53.6	25		12/20/15 18:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	134	45.5	25		12/20/15 18:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	268	96.5	25		12/20/15 18:11	75-71-8	
1,1-Dichloroethane	**193**	ug/kg	134	40.2	25		12/20/15 18:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	134	58.9	25		12/20/15 18:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	134	48.2	25		12/20/15 18:11	75-35-4	
cis-1,2-Dichloroethene	**620**	ug/kg	134	37.5	25		12/20/15 18:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	134	50.9	25		12/20/15 18:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	134	45.5	25		12/20/15 18:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	134	50.9	25		12/20/15 18:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	134	45.5	25		12/20/15 18:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	134	40.2	25		12/20/15 18:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	134	48.2	25		12/20/15 18:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	134	40.2	25		12/20/15 18:11	10061-02-6	
Diisopropyl ether	ND	ug/kg	134	45.5	25		12/20/15 18:11	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	4020	3220	25		12/20/15 18:11	123-91-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (8-10) **Lab ID: 92279773032** Collected: 12/14/15 13:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	**1370**	ug/kg	134	48.2	25		12/20/15 18:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	134	53.6	25		12/20/15 18:11	87-68-3	
2-Hexanone	ND	ug/kg	1340	104	25		12/20/15 18:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	134	50.9	25		12/20/15 18:11	98-82-8	
p-Isopropyltoluene	**96.8J**	ug/kg	134	45.5	25		12/20/15 18:11	99-87-6	
Methylene Chloride	ND	ug/kg	536	80.4	25		12/20/15 18:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1340	99.1	25		12/20/15 18:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	134	40.2	25		12/20/15 18:11	1634-04-4	
Naphthalene	**75.7J**	ug/kg	134	32.2	25		12/20/15 18:11	91-20-3	
n-Propylbenzene	ND	ug/kg	134	45.5	25		12/20/15 18:11	103-65-1	
Styrene	ND	ug/kg	134	48.2	25		12/20/15 18:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	134	56.3	25		12/20/15 18:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	134	50.9	25		12/20/15 18:11	79-34-5	
Tetrachloroethene	**201**	ug/kg	134	45.5	25		12/20/15 18:11	127-18-4	
Toluene	**304**	ug/kg	134	48.2	25		12/20/15 18:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	134	58.9	25		12/20/15 18:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	134	42.9	25		12/20/15 18:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	134	48.2	25		12/20/15 18:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	134	56.3	25		12/20/15 18:11	79-00-5	
Trichloroethene	ND	ug/kg	134	56.3	25		12/20/15 18:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	134	58.9	25		12/20/15 18:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	134	42.9	25		12/20/15 18:11	96-18-4	
1,2,4-Trimethylbenzene	**134J**	ug/kg	134	53.6	25		12/20/15 18:11	95-63-6	
1,3,5-Trimethylbenzene	**59.6J**	ug/kg	134	48.2	25		12/20/15 18:11	108-67-8	
Vinyl acetate	ND	ug/kg	1340	236	25		12/20/15 18:11	108-05-4	
Vinyl chloride	ND	ug/kg	268	48.2	25		12/20/15 18:11	75-01-4	
Xylene (Total)	**8430**	ug/kg	268	96.5	25		12/20/15 18:11	1330-20-7	
m&p-Xylene	**6400**	ug/kg	268	96.5	25		12/20/15 18:11	179601-23-1	
o-Xylene	**2040**	ug/kg	134	50.9	25		12/20/15 18:11	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		25		12/20/15 18:11	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		25		12/20/15 18:11	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		25		12/20/15 18:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.8**	%	0.10	0.10	1		12/16/15 07:00		

REPORT OF LABORATORY ANALYSIS

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (0-2) **Lab ID: 92279773033** Collected: 12/14/15 13:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	15.0	15.0	1		12/18/15 19:05	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	60	%	50-150		1		12/18/15 19:05	17060-07-0	
Toluene-d8 (S)	88	%	50-150		1		12/18/15 19:05	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	127	12.7	1		12/19/15 19:29	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		12/19/15 19:29	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		12/19/15 19:29	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		12/19/15 19:29	75-25-2	
Bromomethane	ND	ug/kg	12.7	3.2	1		12/19/15 19:29	74-83-9	
2-Butanone (MEK)	ND	ug/kg	127	3.7	1		12/19/15 19:29	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		12/19/15 19:29	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		12/19/15 19:29	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		12/19/15 19:29	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	108-90-7	
Chloroethane	ND	ug/kg	12.7	3.0	1		12/19/15 19:29	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		12/19/15 19:29	67-66-3	
Chloromethane	ND	ug/kg	12.7	3.0	1		12/19/15 19:29	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.6	1		12/19/15 19:29	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.2	1		12/19/15 19:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		12/19/15 19:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.7	4.6	1		12/19/15 19:29	75-71-8	
1,1-Dichloroethane	**2750**	ug/kg	411	123	50		12/20/15 16:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		12/19/15 19:29	107-06-2	
1,1-Dichloroethene	**3.6J**	ug/kg	6.3	2.3	1		12/19/15 19:29	75-35-4	
cis-1,2-Dichloroethene	**91.7**	ug/kg	6.3	1.8	1		12/19/15 19:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/19/15 19:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/19/15 19:29	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	190	152	1		12/19/15 19:29	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (0-2) **Lab ID: 92279773033** Collected: 12/14/15 13:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		12/19/15 19:29	87-68-3	
2-Hexanone	ND	ug/kg	63.3	4.9	1		12/19/15 19:29	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	99-87-6	
Methylene Chloride	**22.7J**	ug/kg	25.3	3.8	1		12/19/15 19:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.3	4.7	1		12/19/15 19:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		12/19/15 19:29	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		12/19/15 19:29	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.2	1		12/19/15 19:29	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.7	1		12/19/15 19:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	79-34-5	
Tetrachloroethene	**3550**	ug/kg	411	140	50		12/20/15 16:32	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		12/19/15 19:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		12/19/15 19:29	120-82-1	
1,1,1-Trichloroethane	**2920**	ug/kg	411	148	50		12/20/15 16:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.7	1		12/19/15 19:29	79-00-5	
Trichloroethene	**43.0**	ug/kg	6.3	2.7	1		12/19/15 19:29	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		12/19/15 19:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		12/19/15 19:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		12/19/15 19:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		12/19/15 19:29	108-67-8	
Vinyl acetate	ND	ug/kg	63.3	11.1	1		12/19/15 19:29	108-05-4	
Vinyl chloride	ND	ug/kg	12.7	2.3	1		12/19/15 19:29	75-01-4	
Xylene (Total)	ND	ug/kg	12.7	4.6	1		12/19/15 19:29	1330-20-7	
m&p-Xylene	ND	ug/kg	12.7	4.6	1		12/19/15 19:29	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		12/19/15 19:29	95-47-6	
Surrogates									
Toluene-d8 (S)	88	%	70-130		1		12/19/15 19:29	2037-26-5	IO
4-Bromofluorobenzene (S)	80	%	70-130		1		12/19/15 19:29	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-132		1		12/19/15 19:29	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**2.0**	%	0.10	0.10	1		12/16/15 07:01		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-05 **Lab ID: 92279773034** Collected: 12/14/15 13:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	ND	ug/kg	10.0	10.0	1		12/18/15 19:25	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	82	%	50-150		1		12/18/15 19:25	17060-07-0	
Toluene-d8 (S)	127	%	50-150		1		12/18/15 19:25	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**27.1J**	ug/kg	100	10.0	1		12/19/15 19:49	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/19/15 19:49	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/19/15 19:49	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/19/15 19:49	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/19/15 19:49	74-83-9	
2-Butanone (MEK)	**13.0J**	ug/kg	100	2.9	1		12/19/15 19:49	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/19/15 19:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/19/15 19:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/19/15 19:49	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/19/15 19:49	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/19/15 19:49	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/19/15 19:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/19/15 19:49	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/19/15 19:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/19/15 19:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/19/15 19:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/19/15 19:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/19/15 19:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/19/15 19:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/19/15 19:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/19/15 19:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/19/15 19:49	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: TB-05 **Lab ID: 92279773034** Collected: 12/14/15 13:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/19/15 19:49	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/19/15 19:49	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	99-87-6	
Methylene Chloride	ND	ug/kg	20.0	3.0	1		12/19/15 19:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/19/15 19:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/19/15 19:49	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/19/15 19:49	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/19/15 19:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/19/15 19:49	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/19/15 19:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/19/15 19:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/19/15 19:49	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/19/15 19:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/19/15 19:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/19/15 19:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/19/15 19:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/19/15 19:49	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/19/15 19:49	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/19/15 19:49	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/19/15 19:49	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/19/15 19:49	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/19/15 19:49	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/19/15 19:49	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/19/15 19:49	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-132		1		12/19/15 19:49	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (3-5) **Lab ID: 92279773035** Collected: 12/14/15 13:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV SIM Soil	Analytical Method: EPA 8260B Mod.								
1,4-Dioxane (p-Dioxane)	**65.6**	ug/kg	12.5	12.5	1		12/18/15 19:45	123-91-1	
Surrogates									
1,2-Dichloroethane-d4 (S)	83	%	50-150		1		12/18/15 19:45	17060-07-0	
Toluene-d8 (S)	120	%	50-150		1		12/18/15 19:45	2037-26-5	
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**229**	ug/kg	111	11.1	1		12/19/15 20:08	67-64-1	M1
Benzene	ND	ug/kg	5.6	1.8	1		12/19/15 20:08	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.2	1		12/19/15 20:08	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		12/19/15 20:08	75-25-2	
Bromomethane	ND	ug/kg	11.1	2.8	1		12/19/15 20:08	74-83-9	
2-Butanone (MEK)	**32.2J**	ug/kg	111	3.2	1		12/19/15 20:08	78-93-3	M1
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		12/19/15 20:08	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.2	1		12/19/15 20:08	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		12/19/15 20:08	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	108-90-7	
Chloroethane	ND	ug/kg	11.1	2.7	1		12/19/15 20:08	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		12/19/15 20:08	67-66-3	
Chloromethane	ND	ug/kg	11.1	2.7	1		12/19/15 20:08	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.0	1		12/19/15 20:08	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		12/19/15 20:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.2	1		12/19/15 20:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.1	4.0	1		12/19/15 20:08	75-71-8	
1,1-Dichloroethane	**33.1**	ug/kg	5.6	1.7	1		12/19/15 20:08	75-34-3	M1
1,2-Dichloroethane	ND	ug/kg	5.6	2.4	1		12/19/15 20:08	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	75-35-4	
cis-1,2-Dichloroethene	**2.3J**	ug/kg	5.6	1.6	1		12/19/15 20:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/19/15 20:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/19/15 20:08	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	167	133	1		12/19/15 20:08	123-91-1	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-25A (3-5) **Lab ID: 92279773035** Collected: 12/14/15 13:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.2	1		12/19/15 20:08	87-68-3	
2-Hexanone	ND	ug/kg	55.5	4.3	1		12/19/15 20:08	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	99-87-6	
Methylene Chloride	**44.3**	ug/kg	22.2	3.3	1		12/19/15 20:08	75-09-2	C9,M1
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	55.5	4.1	1		12/19/15 20:08	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		12/19/15 20:08	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.3	1		12/19/15 20:08	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		12/19/15 20:08	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.3	1		12/19/15 20:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	79-34-5	M1
Tetrachloroethene	**134**	ug/kg	5.6	1.9	1		12/19/15 20:08	127-18-4	M1
Toluene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.4	1		12/19/15 20:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		12/19/15 20:08	120-82-1	
1,1,1-Trichloroethane	**9.8**	ug/kg	5.6	2.0	1		12/19/15 20:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.3	1		12/19/15 20:08	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.3	1		12/19/15 20:08	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.4	1		12/19/15 20:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		12/19/15 20:08	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.2	1		12/19/15 20:08	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		12/19/15 20:08	108-67-8	
Vinyl acetate	ND	ug/kg	55.5	9.8	1		12/19/15 20:08	108-05-4	M1
Vinyl chloride	ND	ug/kg	11.1	2.0	1		12/19/15 20:08	75-01-4	
Xylene (Total)	ND	ug/kg	11.1	4.0	1		12/19/15 20:08	1330-20-7	
m&p-Xylene	ND	ug/kg	11.1	4.0	1		12/19/15 20:08	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		12/19/15 20:08	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		12/19/15 20:08	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		12/19/15 20:08	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		1		12/19/15 20:08	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		12/16/15 07:01		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (0-2) **Lab ID: 92279773036** Collected: 12/14/15 14:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**1210**	ug/kg	101	10.1	1		12/19/15 20:28	67-64-1	E
Benzene	ND	ug/kg	5.1	1.6	1		12/19/15 20:28	71-43-2	
Bromobenzene	ND	ug/kg	5.1	2.0	1		12/19/15 20:28	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	75-27-4	
Bromoform	ND	ug/kg	5.1	2.3	1		12/19/15 20:28	75-25-2	
Bromomethane	ND	ug/kg	10.1	2.5	1		12/19/15 20:28	74-83-9	
2-Butanone (MEK)	ND	ug/kg	101	2.9	1		12/19/15 20:28	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1.6	1		12/19/15 20:28	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	2.0	1		12/19/15 20:28	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	2.6	1		12/19/15 20:28	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	108-90-7	
Chloroethane	ND	ug/kg	10.1	2.4	1		12/19/15 20:28	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		12/19/15 20:28	67-66-3	
Chloromethane	ND	ug/kg	10.1	2.4	1		12/19/15 20:28	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.6	1		12/19/15 20:28	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	106-93-4	
Dibromomethane	ND	ug/kg	5.1	2.5	1		12/19/15 20:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.0	1		12/19/15 20:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.1	3.6	1		12/19/15 20:28	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.1	1.5	1		12/19/15 20:28	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.2	1		12/19/15 20:28	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.1	1.4	1		12/19/15 20:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/19/15 20:28	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/19/15 20:28	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	152	122	1		12/19/15 20:28	123-91-1	
Ethylbenzene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	2.0	1		12/19/15 20:28	87-68-3	
2-Hexanone	ND	ug/kg	50.7	4.0	1		12/19/15 20:28	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	98-82-8	
p-Isopropyltoluene	**2.8J**	ug/kg	5.1	1.7	1		12/19/15 20:28	99-87-6	
Methylene Chloride	**12.7J**	ug/kg	20.3	3.0	1		12/19/15 20:28	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (0-2) **Lab ID: 92279773036** Collected: 12/14/15 14:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.7	3.8	1		12/19/15 20:28	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		12/19/15 20:28	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1.2	1		12/19/15 20:28	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	103-65-1	
Styrene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	2.1	1		12/19/15 20:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	79-34-5	
Tetrachloroethene	ND	ug/kg	5.1	1.7	1		12/19/15 20:28	127-18-4	
Toluene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.2	1		12/19/15 20:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		12/19/15 20:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.1	1		12/19/15 20:28	79-00-5	
Trichloroethene	ND	ug/kg	5.1	2.1	1		12/19/15 20:28	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.2	1		12/19/15 20:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1.6	1		12/19/15 20:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	2.0	1		12/19/15 20:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1.8	1		12/19/15 20:28	108-67-8	
Vinyl acetate	ND	ug/kg	50.7	8.9	1		12/19/15 20:28	108-05-4	
Vinyl chloride	ND	ug/kg	10.1	1.8	1		12/19/15 20:28	75-01-4	
Xylene (Total)	ND	ug/kg	10.1	3.6	1		12/19/15 20:28	1330-20-7	
m&p-Xylene	ND	ug/kg	10.1	3.6	1		12/19/15 20:28	179601-23-1	
o-Xylene	ND	ug/kg	5.1	1.9	1		12/19/15 20:28	95-47-6	
Surrogates									
Toluene-d8 (S)	96	%	70-130		1		12/19/15 20:28	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		12/19/15 20:28	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-132		1		12/19/15 20:28	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.4**	%	0.10	0.10	1		12/16/15 07:01		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (3-5) **Lab ID: 92279773037** Collected: 12/14/15 14:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	113	11.3	1		12/19/15 20:48	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		12/19/15 20:48	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		12/19/15 20:48	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		12/19/15 20:48	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		12/19/15 20:48	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		12/19/15 20:48	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		12/19/15 20:48	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		12/19/15 20:48	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	2.9	1		12/19/15 20:48	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		12/19/15 20:48	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		12/19/15 20:48	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		12/19/15 20:48	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		12/19/15 20:48	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.8	1		12/19/15 20:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		12/19/15 20:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		12/19/15 20:48	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		12/19/15 20:48	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		12/19/15 20:48	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1.6	1		12/19/15 20:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/19/15 20:48	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/19/15 20:48	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	170	136	1		12/19/15 20:48	123-91-1	
Ethylbenzene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		12/19/15 20:48	87-68-3	
2-Hexanone	ND	ug/kg	56.5	4.4	1		12/19/15 20:48	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	99-87-6	
Methylene Chloride	**18.6J**	ug/kg	22.6	3.4	1		12/19/15 20:48	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (3-5) **Lab ID: 92279773037** Collected: 12/14/15 14:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.5	4.2	1		12/19/15 20:48	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		12/19/15 20:48	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		12/19/15 20:48	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	103-65-1	
Styrene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		12/19/15 20:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1.9	1		12/19/15 20:48	127-18-4	
Toluene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		12/19/15 20:48	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		12/19/15 20:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		12/19/15 20:48	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		12/19/15 20:48	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		12/19/15 20:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		12/19/15 20:48	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		12/19/15 20:48	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.0	1		12/19/15 20:48	108-67-8	
Vinyl acetate	ND	ug/kg	56.5	9.9	1		12/19/15 20:48	108-05-4	
Vinyl chloride	ND	ug/kg	11.3	2.0	1		12/19/15 20:48	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		12/19/15 20:48	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		12/19/15 20:48	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.1	1		12/19/15 20:48	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1		12/19/15 20:48	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/19/15 20:48	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-132		1		12/19/15 20:48	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.3**	%	0.10	0.10	1		12/16/15 07:01		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (13-15) **Lab ID: 92279773038** Collected: 12/14/15 14:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	116	11.6	1		12/19/15 21:08	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		12/19/15 21:08	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		12/19/15 21:08	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		12/19/15 21:08	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		12/19/15 21:08	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		12/19/15 21:08	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		12/19/15 21:08	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		12/19/15 21:08	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		12/19/15 21:08	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		12/19/15 21:08	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		12/19/15 21:08	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		12/19/15 21:08	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		12/19/15 21:08	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		12/19/15 21:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		12/19/15 21:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		12/19/15 21:08	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		12/19/15 21:08	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.6	1		12/19/15 21:08	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		12/19/15 21:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/19/15 21:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/19/15 21:08	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	175	140	1		12/19/15 21:08	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		12/19/15 21:08	87-68-3	
2-Hexanone	ND	ug/kg	58.2	4.5	1		12/19/15 21:08	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	99-87-6	
Methylene Chloride	**14.7J**	ug/kg	23.3	3.5	1		12/19/15 21:08	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (13-15) **Lab ID: 92279773038** Collected: 12/14/15 14:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.2	4.3	1		12/19/15 21:08	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		12/19/15 21:08	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		12/19/15 21:08	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		12/19/15 21:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		12/19/15 21:08	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.6	1		12/19/15 21:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		12/19/15 21:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		12/19/15 21:08	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		12/19/15 21:08	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.6	1		12/19/15 21:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		12/19/15 21:08	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		12/19/15 21:08	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		12/19/15 21:08	108-67-8	
Vinyl acetate	ND	ug/kg	58.2	10.2	1		12/19/15 21:08	108-05-4	
Vinyl chloride	ND	ug/kg	11.6	2.1	1		12/19/15 21:08	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		12/19/15 21:08	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		12/19/15 21:08	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		12/19/15 21:08	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1		12/19/15 21:08	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		12/19/15 21:08	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		1		12/19/15 21:08	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.8**	%	0.10	0.10	1		12/16/15 07:02		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (8-10) **Lab ID: 92279773039** Collected: 12/14/15 14:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	117	11.7	1		12/19/15 21:27	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		12/19/15 21:27	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.3	1		12/19/15 21:27	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		12/19/15 21:27	75-25-2	
Bromomethane	ND	ug/kg	11.7	2.9	1		12/19/15 21:27	74-83-9	
2-Butanone (MEK)	ND	ug/kg	117	3.4	1		12/19/15 21:27	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		12/19/15 21:27	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.3	1		12/19/15 21:27	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.0	1		12/19/15 21:27	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	108-90-7	
Chloroethane	ND	ug/kg	11.7	2.8	1		12/19/15 21:27	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		12/19/15 21:27	67-66-3	
Chloromethane	ND	ug/kg	11.7	2.8	1		12/19/15 21:27	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.2	1		12/19/15 21:27	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	106-93-4	
Dibromomethane	ND	ug/kg	5.9	2.9	1		12/19/15 21:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		12/19/15 21:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.7	4.2	1		12/19/15 21:27	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		12/19/15 21:27	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		12/19/15 21:27	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.9	1.6	1		12/19/15 21:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/19/15 21:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/19/15 21:27	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	176	140	1		12/19/15 21:27	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.3	1		12/19/15 21:27	87-68-3	
2-Hexanone	ND	ug/kg	58.5	4.6	1		12/19/15 21:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	99-87-6	
Methylene Chloride	**10.6J**	ug/kg	23.4	3.5	1		12/19/15 21:27	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-51 (8-10) **Lab ID: 92279773039** Collected: 12/14/15 14:45 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.5	4.3	1		12/19/15 21:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		12/19/15 21:27	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		12/19/15 21:27	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		12/19/15 21:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		12/19/15 21:27	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		12/19/15 21:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		12/19/15 21:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		12/19/15 21:27	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		12/19/15 21:27	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		12/19/15 21:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		12/19/15 21:27	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.3	1		12/19/15 21:27	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		12/19/15 21:27	108-67-8	
Vinyl acetate	ND	ug/kg	58.5	10.3	1		12/19/15 21:27	108-05-4	
Vinyl chloride	ND	ug/kg	11.7	2.1	1		12/19/15 21:27	75-01-4	
Xylene (Total)	ND	ug/kg	11.7	4.2	1		12/19/15 21:27	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	4.2	1		12/19/15 21:27	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.2	1		12/19/15 21:27	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/19/15 21:27	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		12/19/15 21:27	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-132		1		12/19/15 21:27	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.0**	%	0.10	0.10	1		12/16/15 07:02		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (13-15) **Lab ID: 92279773040** Collected: 12/14/15 14:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	106	10.6	1		12/19/15 21:47	67-64-1	
Benzene	ND	ug/kg	5.3	1.7	1		12/19/15 21:47	71-43-2	
Bromobenzene	ND	ug/kg	5.3	2.1	1		12/19/15 21:47	108-86-1	
Bromochloromethane	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	74-97-5	
Bromodichloromethane	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	75-27-4	
Bromoform	ND	ug/kg	5.3	2.4	1		12/19/15 21:47	75-25-2	
Bromomethane	ND	ug/kg	10.6	2.6	1		12/19/15 21:47	74-83-9	
2-Butanone (MEK)	ND	ug/kg	106	3.1	1		12/19/15 21:47	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1.7	1		12/19/15 21:47	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	2.1	1		12/19/15 21:47	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.3	2.8	1		12/19/15 21:47	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	108-90-7	
Chloroethane	ND	ug/kg	10.6	2.5	1		12/19/15 21:47	75-00-3	
Chloroform	ND	ug/kg	5.3	1.7	1		12/19/15 21:47	67-66-3	
Chloromethane	ND	ug/kg	10.6	2.5	1		12/19/15 21:47	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.3	3.8	1		12/19/15 21:47	96-12-8	
Dibromochloromethane	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	106-93-4	
Dibromomethane	ND	ug/kg	5.3	2.6	1		12/19/15 21:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	2.1	1		12/19/15 21:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.6	3.8	1		12/19/15 21:47	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.3	1.6	1		12/19/15 21:47	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	2.3	1		12/19/15 21:47	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.3	1.5	1		12/19/15 21:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.3	1.6	1		12/19/15 21:47	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.6	1		12/19/15 21:47	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	159	127	1		12/19/15 21:47	123-91-1	
Ethylbenzene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.3	2.1	1		12/19/15 21:47	87-68-3	
2-Hexanone	ND	ug/kg	52.9	4.1	1		12/19/15 21:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	99-87-6	
Methylene Chloride	**16.2J**	ug/kg	21.2	3.2	1		12/19/15 21:47	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (13-15) **Lab ID: 92279773040** Collected: 12/14/15 14:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52.9	3.9	1		12/19/15 21:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1.6	1		12/19/15 21:47	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1.3	1		12/19/15 21:47	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	103-65-1	
Styrene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.3	2.2	1		12/19/15 21:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	79-34-5	
Tetrachloroethene	ND	ug/kg	5.3	1.8	1		12/19/15 21:47	127-18-4	
Toluene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.3	2.3	1		12/19/15 21:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.7	1		12/19/15 21:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	2.2	1		12/19/15 21:47	79-00-5	
Trichloroethene	ND	ug/kg	5.3	2.2	1		12/19/15 21:47	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.3	2.3	1		12/19/15 21:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.3	1.7	1		12/19/15 21:47	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.1	1		12/19/15 21:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1.9	1		12/19/15 21:47	108-67-8	
Vinyl acetate	ND	ug/kg	52.9	9.3	1		12/19/15 21:47	108-05-4	
Vinyl chloride	ND	ug/kg	10.6	1.9	1		12/19/15 21:47	75-01-4	
Xylene (Total)	ND	ug/kg	10.6	3.8	1		12/19/15 21:47	1330-20-7	
m&p-Xylene	ND	ug/kg	10.6	3.8	1		12/19/15 21:47	179601-23-1	
o-Xylene	ND	ug/kg	5.3	2.0	1		12/19/15 21:47	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/19/15 21:47	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		12/19/15 21:47	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-132		1		12/19/15 21:47	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.0**	%	0.10	0.10	1		12/16/15 07:02		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (0-2) **Lab ID: 92279773041** Collected: 12/14/15 14:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	121	12.1	1		12/20/15 18:30	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		12/20/15 18:30	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		12/20/15 18:30	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	75-27-4	
Bromoform	ND	ug/kg	6.0	2.8	1		12/20/15 18:30	75-25-2	
Bromomethane	ND	ug/kg	12.1	3.0	1		12/20/15 18:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	121	3.5	1		12/20/15 18:30	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		12/20/15 18:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		12/20/15 18:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		12/20/15 18:30	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	108-90-7	
Chloroethane	ND	ug/kg	12.1	2.9	1		12/20/15 18:30	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		12/20/15 18:30	67-66-3	
Chloromethane	ND	ug/kg	12.1	2.9	1		12/20/15 18:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		12/20/15 18:30	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		12/20/15 18:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		12/20/15 18:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.1	4.3	1		12/20/15 18:30	75-71-8	
1,1-Dichloroethane	**6.9**	ug/kg	6.0	1.8	1		12/20/15 18:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.7	1		12/20/15 18:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	75-35-4	
cis-1,2-Dichloroethene	**1790**	ug/kg	138	38.6	25		12/21/15 13:40	156-59-2	
trans-1,2-Dichloroethene	**3.9J**	ug/kg	6.0	2.3	1		12/20/15 18:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		12/20/15 18:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		12/20/15 18:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	181	145	1		12/20/15 18:30	123-91-1	
Ethylbenzene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		12/20/15 18:30	87-68-3	
2-Hexanone	ND	ug/kg	60.3	4.7	1		12/20/15 18:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	99-87-6	
Methylene Chloride	**29.2**	ug/kg	24.1	3.6	1		12/20/15 18:30	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (0-2) **Lab ID: 92279773041** Collected: 12/14/15 14:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.3	4.5	1		12/20/15 18:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		12/20/15 18:30	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		12/20/15 18:30	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.1	1		12/20/15 18:30	103-65-1	
Styrene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		12/20/15 18:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	79-34-5	
Tetrachloroethene	**3.4J**	ug/kg	6.0	2.1	1		12/20/15 18:30	127-18-4	
Toluene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.7	1		12/20/15 18:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		12/20/15 18:30	120-82-1	
1,1,1-Trichloroethane	**27.2**	ug/kg	6.0	2.2	1		12/20/15 18:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		12/20/15 18:30	79-00-5	
Trichloroethene	**7.3**	ug/kg	6.0	2.5	1		12/20/15 18:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.7	1		12/20/15 18:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		12/20/15 18:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		12/20/15 18:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.2	1		12/20/15 18:30	108-67-8	
Vinyl acetate	ND	ug/kg	60.3	10.6	1		12/20/15 18:30	108-05-4	
Vinyl chloride	ND	ug/kg	12.1	2.2	1		12/20/15 18:30	75-01-4	
Xylene (Total)	ND	ug/kg	12.1	4.3	1		12/20/15 18:30	1330-20-7	
m&p-Xylene	ND	ug/kg	12.1	4.3	1		12/20/15 18:30	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		12/20/15 18:30	95-47-6	
Surrogates									
Toluene-d8 (S)	97	%	70-130		1		12/20/15 18:30	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		12/20/15 18:30	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		12/20/15 18:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.4**	%	0.10	0.10	1		12/16/15 07:03		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (8-10) **Lab ID: 92279773042** Collected: 12/14/15 14:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	115	11.5	1		12/20/15 18:50	67-64-1	
Benzene	ND	ug/kg	5.8	1.8	1		12/20/15 18:50	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		12/20/15 18:50	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		12/20/15 18:50	75-25-2	
Bromomethane	ND	ug/kg	11.5	2.9	1		12/20/15 18:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	115	3.3	1		12/20/15 18:50	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.8	1		12/20/15 18:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		12/20/15 18:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		12/20/15 18:50	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	108-90-7	
Chloroethane	ND	ug/kg	11.5	2.8	1		12/20/15 18:50	75-00-3	
Chloroform	ND	ug/kg	5.8	1.8	1		12/20/15 18:50	67-66-3	
Chloromethane	ND	ug/kg	11.5	2.8	1		12/20/15 18:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		12/20/15 18:50	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		12/20/15 18:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		12/20/15 18:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.5	4.2	1		12/20/15 18:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		12/20/15 18:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.5	1		12/20/15 18:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		12/20/15 18:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/20/15 18:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/20/15 18:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	173	138	1		12/20/15 18:50	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		12/20/15 18:50	87-68-3	
2-Hexanone	ND	ug/kg	57.7	4.5	1		12/20/15 18:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	99-87-6	
Methylene Chloride	**24.1**	ug/kg	23.1	3.5	1		12/20/15 18:50	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (8-10) **Lab ID: 92279773042** Collected: 12/14/15 14:50 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57.7	4.3	1		12/20/15 18:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		12/20/15 18:50	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		12/20/15 18:50	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		12/20/15 18:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		12/20/15 18:50	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.5	1		12/20/15 18:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.8	1		12/20/15 18:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		12/20/15 18:50	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		12/20/15 18:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.5	1		12/20/15 18:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.8	1		12/20/15 18:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		12/20/15 18:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		12/20/15 18:50	108-67-8	
Vinyl acetate	ND	ug/kg	57.7	10.2	1		12/20/15 18:50	108-05-4	
Vinyl chloride	ND	ug/kg	11.5	2.1	1		12/20/15 18:50	75-01-4	
Xylene (Total)	ND	ug/kg	11.5	4.2	1		12/20/15 18:50	1330-20-7	
m&p-Xylene	ND	ug/kg	11.5	4.2	1		12/20/15 18:50	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		12/20/15 18:50	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/20/15 18:50	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/20/15 18:50	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		12/20/15 18:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.6**	%	0.10	0.10	1		12/16/15 07:03		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (3-5) **Lab ID: 92279773043** Collected: 12/14/15 15:00 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**32.2J**	ug/kg	128	12.8	1		12/20/15 19:10	67-64-1	
Benzene	ND	ug/kg	6.4	2.1	1		12/20/15 19:10	71-43-2	
Bromobenzene	ND	ug/kg	6.4	2.6	1		12/20/15 19:10	108-86-1	
Bromochloromethane	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	74-97-5	
Bromodichloromethane	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	75-27-4	
Bromoform	ND	ug/kg	6.4	2.9	1		12/20/15 19:10	75-25-2	
Bromomethane	ND	ug/kg	12.8	3.2	1		12/20/15 19:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	128	3.7	1		12/20/15 19:10	78-93-3	
n-Butylbenzene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.4	2.1	1		12/20/15 19:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.4	2.6	1		12/20/15 19:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.4	3.3	1		12/20/15 19:10	56-23-5	
Chlorobenzene	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	108-90-7	
Chloroethane	ND	ug/kg	12.8	3.1	1		12/20/15 19:10	75-00-3	
Chloroform	ND	ug/kg	6.4	2.1	1		12/20/15 19:10	67-66-3	
Chloromethane	ND	ug/kg	12.8	3.1	1		12/20/15 19:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.4	4.6	1		12/20/15 19:10	96-12-8	
Dibromochloromethane	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	106-93-4	
Dibromomethane	ND	ug/kg	6.4	3.2	1		12/20/15 19:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.4	2.6	1		12/20/15 19:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.8	4.6	1		12/20/15 19:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.4	1.9	1		12/20/15 19:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.4	2.8	1		12/20/15 19:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	75-35-4	
cis-1,2-Dichloroethene	**3.6J**	ug/kg	6.4	1.8	1		12/20/15 19:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.4	1.9	1		12/20/15 19:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.4	1.9	1		12/20/15 19:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	192	154	1		12/20/15 19:10	123-91-1	
Ethylbenzene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.4	2.6	1		12/20/15 19:10	87-68-3	
2-Hexanone	ND	ug/kg	64.1	5.0	1		12/20/15 19:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	99-87-6	
Methylene Chloride	**55.1**	ug/kg	25.6	3.8	1		12/20/15 19:10	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-52 (3-5) **Lab ID: 92279773043** Collected: 12/14/15 15:00 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.1	4.7	1		12/20/15 19:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.4	1.9	1		12/20/15 19:10	1634-04-4	
Naphthalene	ND	ug/kg	6.4	1.5	1		12/20/15 19:10	91-20-3	
n-Propylbenzene	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	103-65-1	
Styrene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.4	2.7	1		12/20/15 19:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	79-34-5	
Tetrachloroethene	ND	ug/kg	6.4	2.2	1		12/20/15 19:10	127-18-4	
Toluene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.4	2.8	1		12/20/15 19:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.4	2.1	1		12/20/15 19:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.4	2.7	1		12/20/15 19:10	79-00-5	
Trichloroethene	ND	ug/kg	6.4	2.7	1		12/20/15 19:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.4	2.8	1		12/20/15 19:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.4	2.1	1		12/20/15 19:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.4	2.6	1		12/20/15 19:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.4	2.3	1		12/20/15 19:10	108-67-8	
Vinyl acetate	ND	ug/kg	64.1	11.3	1		12/20/15 19:10	108-05-4	
Vinyl chloride	ND	ug/kg	12.8	2.3	1		12/20/15 19:10	75-01-4	
Xylene (Total)	ND	ug/kg	12.8	4.6	1		12/20/15 19:10	1330-20-7	
m&p-Xylene	ND	ug/kg	12.8	4.6	1		12/20/15 19:10	179601-23-1	
o-Xylene	ND	ug/kg	6.4	2.4	1		12/20/15 19:10	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/20/15 19:10	2037-26-5	
4-Bromofluorobenzene (S)	90	%	70-130		1		12/20/15 19:10	460-00-4	
1,2-Dichloroethane-d4 (S)	139	%	70-132		1		12/20/15 19:10	17060-07-0	S1
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.7**	%	0.10	0.10	1		12/16/15 07:03		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (13-15) **Lab ID: 92279773044** Collected: 12/14/15 15:05 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	126	12.6	1		12/20/15 19:30	67-64-1	M1
Benzene	ND	ug/kg	6.3	2.0	1		12/20/15 19:30	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		12/20/15 19:30	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		12/20/15 19:30	75-25-2	
Bromomethane	ND	ug/kg	12.6	3.2	1		12/20/15 19:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	126	3.7	1		12/20/15 19:30	78-93-3	M1
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		12/20/15 19:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		12/20/15 19:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		12/20/15 19:30	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	108-90-7	
Chloroethane	ND	ug/kg	12.6	3.0	1		12/20/15 19:30	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		12/20/15 19:30	67-66-3	
Chloromethane	ND	ug/kg	12.6	3.0	1		12/20/15 19:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.5	1		12/20/15 19:30	96-12-8	M1
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.2	1		12/20/15 19:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		12/20/15 19:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.6	4.5	1		12/20/15 19:30	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		12/20/15 19:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		12/20/15 19:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.3	1.8	1		12/20/15 19:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/20/15 19:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/20/15 19:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	189	151	1		12/20/15 19:30	123-91-1	M1
Ethylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		12/20/15 19:30	87-68-3	M1
2-Hexanone	ND	ug/kg	63.0	4.9	1		12/20/15 19:30	591-78-6	M1
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	99-87-6	
Methylene Chloride	**18.0J**	ug/kg	25.2	3.8	1		12/20/15 19:30	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (13-15) **Lab ID: 92279773044** Collected: 12/14/15 15:05 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.0	4.7	1		12/20/15 19:30	108-10-1	M1
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		12/20/15 19:30	1634-04-4	M1
Naphthalene	ND	ug/kg	6.3	1.5	1		12/20/15 19:30	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	100-42-5	M1
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.6	1		12/20/15 19:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	79-34-5	M1
Tetrachloroethene	ND	ug/kg	6.3	2.1	1		12/20/15 19:30	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		12/20/15 19:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		12/20/15 19:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.6	1		12/20/15 19:30	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.6	1		12/20/15 19:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		12/20/15 19:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		12/20/15 19:30	96-18-4	M1
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		12/20/15 19:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 19:30	108-67-8	
Vinyl acetate	ND	ug/kg	63.0	11.1	1		12/20/15 19:30	108-05-4	M1
Vinyl chloride	ND	ug/kg	12.6	2.3	1		12/20/15 19:30	75-01-4	
Xylene (Total)	ND	ug/kg	12.6	4.5	1		12/20/15 19:30	1330-20-7	
m&p-Xylene	ND	ug/kg	12.6	4.5	1		12/20/15 19:30	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		12/20/15 19:30	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/20/15 19:30	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/20/15 19:30	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		12/20/15 19:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		12/16/15 07:04		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (8-10) **Lab ID: 92279773045** Collected: 12/14/15 15:10 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	131	13.1	1		12/20/15 19:50	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		12/20/15 19:50	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		12/20/15 19:50	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		12/20/15 19:50	75-25-2	
Bromomethane	ND	ug/kg	13.1	3.3	1		12/20/15 19:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	131	3.8	1		12/20/15 19:50	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		12/20/15 19:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		12/20/15 19:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		12/20/15 19:50	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	108-90-7	
Chloroethane	ND	ug/kg	13.1	3.2	1		12/20/15 19:50	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		12/20/15 19:50	67-66-3	
Chloromethane	ND	ug/kg	13.1	3.2	1		12/20/15 19:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.7	1		12/20/15 19:50	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		12/20/15 19:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		12/20/15 19:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.1	4.7	1		12/20/15 19:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		12/20/15 19:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		12/20/15 19:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.8	1		12/20/15 19:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		12/20/15 19:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		12/20/15 19:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	197	158	1		12/20/15 19:50	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		12/20/15 19:50	87-68-3	
2-Hexanone	ND	ug/kg	65.7	5.1	1		12/20/15 19:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	99-87-6	
Methylene Chloride	**23.7J**	ug/kg	26.3	3.9	1		12/20/15 19:50	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (8-10) **Lab ID: 92279773045** Collected: 12/14/15 15:10 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.7	4.9	1		12/20/15 19:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		12/20/15 19:50	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		12/20/15 19:50	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		12/20/15 19:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		12/20/15 19:50	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		12/20/15 19:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		12/20/15 19:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		12/20/15 19:50	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		12/20/15 19:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		12/20/15 19:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		12/20/15 19:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		12/20/15 19:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		12/20/15 19:50	108-67-8	
Vinyl acetate	ND	ug/kg	65.7	11.6	1		12/20/15 19:50	108-05-4	
Vinyl chloride	ND	ug/kg	13.1	2.4	1		12/20/15 19:50	75-01-4	
Xylene (Total)	ND	ug/kg	13.1	4.7	1		12/20/15 19:50	1330-20-7	
m&p-Xylene	ND	ug/kg	13.1	4.7	1		12/20/15 19:50	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		12/20/15 19:50	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/20/15 19:50	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/20/15 19:50	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		12/20/15 19:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.6**	%	0.10	0.10	1		12/16/15 07:04		

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(704)875-9092

ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (0-2) **Lab ID: 92279773046** Collected: 12/14/15 15:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**48.3J**	ug/kg	132	13.2	1		12/21/15 19:16	67-64-1	
Benzene	ND	ug/kg	6.6	2.1	1		12/21/15 19:16	71-43-2	
Bromobenzene	ND	ug/kg	6.6	2.6	1		12/21/15 19:16	108-86-1	
Bromochloromethane	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	74-97-5	
Bromodichloromethane	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	75-27-4	
Bromoform	ND	ug/kg	6.6	3.0	1		12/21/15 19:16	75-25-2	
Bromomethane	ND	ug/kg	13.2	3.3	1		12/21/15 19:16	74-83-9	
2-Butanone (MEK)	ND	ug/kg	132	3.8	1		12/21/15 19:16	78-93-3	
n-Butylbenzene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.6	2.1	1		12/21/15 19:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.6	2.6	1		12/21/15 19:16	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.6	3.4	1		12/21/15 19:16	56-23-5	
Chlorobenzene	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	108-90-7	
Chloroethane	ND	ug/kg	13.2	3.2	1		12/21/15 19:16	75-00-3	
Chloroform	ND	ug/kg	6.6	2.1	1		12/21/15 19:16	67-66-3	
Chloromethane	ND	ug/kg	13.2	3.2	1		12/21/15 19:16	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.6	4.7	1		12/21/15 19:16	96-12-8	
Dibromochloromethane	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	106-93-4	
Dibromomethane	ND	ug/kg	6.6	3.3	1		12/21/15 19:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.6	2.6	1		12/21/15 19:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	13.2	4.7	1		12/21/15 19:16	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.6	2.0	1		12/21/15 19:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.6	2.9	1		12/21/15 19:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.6	1.8	1		12/21/15 19:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.6	2.0	1		12/21/15 19:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.6	2.0	1		12/21/15 19:16	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	198	158	1		12/21/15 19:16	123-91-1	
Ethylbenzene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.6	2.6	1		12/21/15 19:16	87-68-3	
2-Hexanone	ND	ug/kg	65.8	5.1	1		12/21/15 19:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	99-87-6	
Methylene Chloride	**11.5J**	ug/kg	26.3	4.0	1		12/21/15 19:16	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (0-2) **Lab ID: 92279773046** Collected: 12/14/15 15:35 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	65.8	4.9	1		12/21/15 19:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.6	2.0	1		12/21/15 19:16	1634-04-4	
Naphthalene	ND	ug/kg	6.6	1.6	1		12/21/15 19:16	91-20-3	
n-Propylbenzene	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	103-65-1	
Styrene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.6	2.8	1		12/21/15 19:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	79-34-5	
Tetrachloroethene	ND	ug/kg	6.6	2.2	1		12/21/15 19:16	127-18-4	
Toluene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.6	2.9	1		12/21/15 19:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.6	2.1	1		12/21/15 19:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.6	2.8	1		12/21/15 19:16	79-00-5	
Trichloroethene	ND	ug/kg	6.6	2.8	1		12/21/15 19:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.6	2.9	1		12/21/15 19:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.6	2.1	1		12/21/15 19:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.6	2.6	1		12/21/15 19:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.6	2.4	1		12/21/15 19:16	108-67-8	
Vinyl acetate	ND	ug/kg	65.8	11.6	1		12/21/15 19:16	108-05-4	
Vinyl chloride	ND	ug/kg	13.2	2.4	1		12/21/15 19:16	75-01-4	
Xylene (Total)	ND	ug/kg	13.2	4.7	1		12/21/15 19:16	1330-20-7	
m&p-Xylene	ND	ug/kg	13.2	4.7	1		12/21/15 19:16	179601-23-1	
o-Xylene	ND	ug/kg	6.6	2.5	1		12/21/15 19:16	95-47-6	
Surrogates									
Toluene-d8 (S)	87	%	70-130		1		12/21/15 19:16	2037-26-5	1g
4-Bromofluorobenzene (S)	80	%	70-130		1		12/21/15 19:16	460-00-4	
1,2-Dichloroethane-d4 (S)	132	%	70-132		1		12/21/15 19:16	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.7**	%	0.10	0.10	1		12/16/15 07:05		

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (3-5) **Lab ID: 92279773047** Collected: 12/14/15 15:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	127	12.7	1		12/20/15 20:29	67-64-1	
Benzene	ND	ug/kg	6.3	2.0	1		12/20/15 20:29	71-43-2	
Bromobenzene	ND	ug/kg	6.3	2.5	1		12/20/15 20:29	108-86-1	
Bromochloromethane	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	74-97-5	
Bromodichloromethane	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	75-27-4	
Bromoform	ND	ug/kg	6.3	2.9	1		12/20/15 20:29	75-25-2	
Bromomethane	ND	ug/kg	12.7	3.2	1		12/20/15 20:29	74-83-9	
2-Butanone (MEK)	ND	ug/kg	127	3.7	1		12/20/15 20:29	78-93-3	
n-Butylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.3	2.0	1		12/20/15 20:29	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.3	2.5	1		12/20/15 20:29	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.3	3.3	1		12/20/15 20:29	56-23-5	
Chlorobenzene	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	108-90-7	
Chloroethane	ND	ug/kg	12.7	3.0	1		12/20/15 20:29	75-00-3	
Chloroform	ND	ug/kg	6.3	2.0	1		12/20/15 20:29	67-66-3	
Chloromethane	ND	ug/kg	12.7	3.0	1		12/20/15 20:29	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.3	4.6	1		12/20/15 20:29	96-12-8	
Dibromochloromethane	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	106-93-4	
Dibromomethane	ND	ug/kg	6.3	3.2	1		12/20/15 20:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.3	2.5	1		12/20/15 20:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.7	4.6	1		12/20/15 20:29	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.3	1.9	1		12/20/15 20:29	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.3	2.8	1		12/20/15 20:29	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.3	1.8	1		12/20/15 20:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/20/15 20:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.3	1.9	1		12/20/15 20:29	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	190	152	1		12/20/15 20:29	123-91-1	
Ethylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.3	2.5	1		12/20/15 20:29	87-68-3	
2-Hexanone	ND	ug/kg	63.3	4.9	1		12/20/15 20:29	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	99-87-6	
Methylene Chloride	**21.8J**	ug/kg	25.3	3.8	1		12/20/15 20:29	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Sample: DS-53 (3-5) **Lab ID: 92279773047** Collected: 12/14/15 15:40 Received: 12/15/15 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	63.3	4.7	1		12/20/15 20:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.3	1.9	1		12/20/15 20:29	1634-04-4	
Naphthalene	ND	ug/kg	6.3	1.5	1		12/20/15 20:29	91-20-3	
n-Propylbenzene	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	103-65-1	
Styrene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.3	2.7	1		12/20/15 20:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	79-34-5	
Tetrachloroethene	ND	ug/kg	6.3	2.2	1		12/20/15 20:29	127-18-4	
Toluene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.3	2.8	1		12/20/15 20:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.3	2.0	1		12/20/15 20:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.3	2.7	1		12/20/15 20:29	79-00-5	
Trichloroethene	ND	ug/kg	6.3	2.7	1		12/20/15 20:29	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.3	2.8	1		12/20/15 20:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.3	2.0	1		12/20/15 20:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.3	2.5	1		12/20/15 20:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.3	2.3	1		12/20/15 20:29	108-67-8	
Vinyl acetate	ND	ug/kg	63.3	11.1	1		12/20/15 20:29	108-05-4	
Vinyl chloride	ND	ug/kg	12.7	2.3	1		12/20/15 20:29	75-01-4	
Xylene (Total)	ND	ug/kg	12.7	4.6	1		12/20/15 20:29	1330-20-7	
m&p-Xylene	ND	ug/kg	12.7	4.6	1		12/20/15 20:29	179601-23-1	
o-Xylene	ND	ug/kg	6.3	2.4	1		12/20/15 20:29	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/20/15 20:29	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/20/15 20:29	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		1		12/20/15 20:29	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**27.7**	%	0.10	0.10	1		12/16/15 07:06		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34766 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV Soil SIM
Associated Lab Samples: 92279773001, 92279773003, 92279773004, 92279773005, 92279773006, 92279773007, 92279773008, 92279773009, 92279773010, 92279773011, 92279773012, 92279773013, 92279773014, 92279773015, 92279773016, 92279773017

METHOD BLANK: 1632009 Matrix: Solid
Associated Lab Samples: 92279773001, 92279773003, 92279773004, 92279773005, 92279773006, 92279773007, 92279773008, 92279773009, 92279773010, 92279773011, 92279773012, 92279773013, 92279773014, 92279773015, 92279773016, 92279773017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	ND	9.6	9.6	12/17/15 20:43	
1,2-Dichloroethane-d4 (S)	%	103	50-150		12/17/15 20:43	
Toluene-d8 (S)	%	91	50-150		12/17/15 20:43	

LABORATORY CONTROL SAMPLE: 1632010

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	43.2	33.4	77	50-150	
1,2-Dichloroethane-d4 (S)	%			91	50-150	
Toluene-d8 (S)	%			83	50-150	

MATRIX SPIKE SAMPLE: 1632508

Parameter	Units	92279773003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	ND	44.5	38.4	86	50-150	
1,2-Dichloroethane-d4 (S)	%				83	50-150	
Toluene-d8 (S)	%				128	50-150	

SAMPLE DUPLICATE: 1632520

Parameter	Units	92279773004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND			
1,2-Dichloroethane-d4 (S)	%	84	74	15	150	
Toluene-d8 (S)	%	73	106	36	150	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34775 Analysis Method: EPA 8260B Mod.
QC Batch Method: EPA 8260B Mod. Analysis Description: 8260 MSV Soil SIM
Associated Lab Samples: 92279773018, 92279773019, 92279773020, 92279773021, 92279773022, 92279773023, 92279773024, 92279773025, 92279773026, 92279773027, 92279773028, 92279773029, 92279773030, 92279773031, 92279773032, 92279773033, 92279773034, 92279773035

METHOD BLANK: 1632721 Matrix: Solid
Associated Lab Samples: 92279773018, 92279773019, 92279773020, 92279773021, 92279773022, 92279773023, 92279773024, 92279773025, 92279773026, 92279773027, 92279773028, 92279773029, 92279773030, 92279773031, 92279773032, 92279773033, 92279773034, 92279773035

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	ND	8.8	8.8	12/18/15 11:57	
1,2-Dichloroethane-d4 (S)	%	94	50-150		12/18/15 11:57	
Toluene-d8 (S)	%	145	50-150		12/18/15 11:57	

LABORATORY CONTROL SAMPLE: 1632722

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	47.3	38.2	81	50-150	
1,2-Dichloroethane-d4 (S)	%			72	50-150	
Toluene-d8 (S)	%			108	50-150	

MATRIX SPIKE SAMPLE: 1633454

Parameter	Units	92279773021 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	22.2	38.8	64.5	109	50-150	
1,2-Dichloroethane-d4 (S)	%				95	50-150	
Toluene-d8 (S)	%				140	50-150	

SAMPLE DUPLICATE: 1633453

Parameter	Units	92279773020 Result	Dup Result	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND			
1,2-Dichloroethane-d4 (S)	%	81	126	3	150	
Toluene-d8 (S)	%	123	183	1	150	S3

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34795
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92279773002

METHOD BLANK: 1633889
Matrix: Water
Associated Lab Samples: 92279773002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/19/15 11:53	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/19/15 11:53	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/19/15 11:53	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/19/15 11:53	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/19/15 11:53	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/19/15 11:53	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/19/15 11:53	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/19/15 11:53	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/19/15 11:53	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/19/15 11:53	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/19/15 11:53	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/19/15 11:53	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/19/15 11:53	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/19/15 11:53	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/19/15 11:53	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/19/15 11:53	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/19/15 11:53	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/19/15 11:53	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/19/15 11:53	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/19/15 11:53	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/19/15 11:53	
2-Hexanone	ug/L	ND	5.0	0.46	12/19/15 11:53	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/19/15 11:53	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/19/15 11:53	
Acetone	ug/L	ND	25.0	10.0	12/19/15 11:53	
Benzene	ug/L	ND	1.0	0.25	12/19/15 11:53	
Bromobenzene	ug/L	ND	1.0	0.30	12/19/15 11:53	
Bromochloromethane	ug/L	ND	1.0	0.17	12/19/15 11:53	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/19/15 11:53	
Bromoform	ug/L	ND	1.0	0.26	12/19/15 11:53	
Bromomethane	ug/L	ND	2.0	0.29	12/19/15 11:53	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/19/15 11:53	
Chlorobenzene	ug/L	ND	1.0	0.23	12/19/15 11:53	
Chloroethane	ug/L	ND	1.0	0.54	12/19/15 11:53	
Chloroform	ug/L	ND	1.0	0.14	12/19/15 11:53	
Chloromethane	ug/L	ND	1.0	0.11	12/19/15 11:53	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/19/15 11:53	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/19/15 11:53	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/19/15 11:53	
Dibromomethane	ug/L	ND	1.0	0.21	12/19/15 11:53	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/19/15 11:53	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1633889 Matrix: Water
Associated Lab Samples: 92279773002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	12/19/15 11:53	
Ethylbenzene	ug/L	ND	1.0	0.30	12/19/15 11:53	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/19/15 11:53	
m&p-Xylene	ug/L	ND	2.0	0.66	12/19/15 11:53	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	12/19/15 11:53	
Methylene Chloride	ug/L	ND	2.0	0.97	12/19/15 11:53	
Naphthalene	ug/L	ND	1.0	0.24	12/19/15 11:53	
o-Xylene	ug/L	ND	1.0	0.23	12/19/15 11:53	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/19/15 11:53	
Styrene	ug/L	ND	1.0	0.26	12/19/15 11:53	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/19/15 11:53	
Toluene	ug/L	ND	1.0	0.26	12/19/15 11:53	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/19/15 11:53	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/19/15 11:53	
Trichloroethene	ug/L	ND	1.0	0.47	12/19/15 11:53	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/19/15 11:53	
Vinyl acetate	ug/L	ND	2.0	0.35	12/19/15 11:53	
Vinyl chloride	ug/L	ND	1.0	0.62	12/19/15 11:53	
Xylene (Total)	ug/L	ND	2.0	0.66	12/19/15 11:53	
1,2-Dichloroethane-d4 (S)	%	108	70-130		12/19/15 11:53	
4-Bromofluorobenzene (S)	%	110	70-130		12/19/15 11:53	
Toluene-d8 (S)	%	100	70-130		12/19/15 11:53	

LABORATORY CONTROL SAMPLE: 1633890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.7	97	70-130	
1,1,1-Trichloroethane	ug/L	50	54.0	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	42.5	85	70-130	
1,1,2-Trichloroethane	ug/L	50	46.6	93	70-130	
1,1-Dichloroethane	ug/L	50	45.7	91	70-130	
1,1-Dichloroethene	ug/L	50	49.9	100	70-132	
1,1-Dichloropropene	ug/L	50	49.3	99	70-130	
1,2,3-Trichlorobenzene	ug/L	50	45.7	91	70-135	
1,2,3-Trichloropropane	ug/L	50	47.2	94	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.0	96	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	46.7	93	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	45.8	92	70-130	
1,2-Dichlorobenzene	ug/L	50	43.9	88	70-130	
1,2-Dichloroethane	ug/L	50	49.6	99	70-130	
1,2-Dichloropropane	ug/L	50	43.9	88	70-130	
1,3-Dichlorobenzene	ug/L	50	45.5	91	70-130	
1,3-Dichloropropane	ug/L	50	41.6	83	70-130	
1,4-Dichlorobenzene	ug/L	50	45.7	91	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1633890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	53.5	107	58-145	
2-Butanone (MEK)	ug/L	100	87.0	87	70-145	
2-Chlorotoluene	ug/L	50	45.0	90	70-130	
2-Hexanone	ug/L	100	90.0	90	70-144	
4-Chlorotoluene	ug/L	50	42.6	85	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	97.8	98	70-140	
Acetone	ug/L	100	106	106	50-175	
Benzene	ug/L	50	45.1	90	70-130	
Bromobenzene	ug/L	50	45.1	90	70-130	
Bromochloromethane	ug/L	50	51.3	103	70-130	
Bromodichloromethane	ug/L	50	49.4	99	70-130	
Bromoform	ug/L	50	49.7	99	70-130	
Bromomethane	ug/L	50	40.9	82	54-130	
Carbon tetrachloride	ug/L	50	58.1	116	70-132	
Chlorobenzene	ug/L	50	44.8	90	70-130	
Chloroethane	ug/L	50	42.9	86	64-134	
Chloroform	ug/L	50	49.9	100	70-130	
Chloromethane	ug/L	50	52.2	104	64-130	
cis-1,2-Dichloroethene	ug/L	50	47.1	94	70-131	
cis-1,3-Dichloropropene	ug/L	50	47.7	95	70-130	
Dibromochloromethane	ug/L	50	50.2	100	70-130	
Dibromomethane	ug/L	50	53.7	107	70-131	
Dichlorodifluoromethane	ug/L	50	47.2	94	56-130	
Diisopropyl ether	ug/L	50	45.9	92	70-130	
Ethylbenzene	ug/L	50	45.9	92	70-130	
Hexachloro-1,3-butadiene	ug/L	50	57.9	116	70-130	
m&p-Xylene	ug/L	100	92.5	92	70-130	
Methyl-tert-butyl ether	ug/L	50	47.2	94	70-130	
Methylene Chloride	ug/L	50	48.6	97	63-130	
Naphthalene	ug/L	50	43.2	86	70-138	
o-Xylene	ug/L	50	44.1	88	70-130	
p-Isopropyltoluene	ug/L	50	45.1	90	70-130	
Styrene	ug/L	50	45.2	90	70-130	
Tetrachloroethene	ug/L	50	48.7	97	70-130	
Toluene	ug/L	50	45.2	90	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.6	95	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.3	101	70-132	
Trichloroethene	ug/L	50	49.1	98	70-130	
Trichlorofluoromethane	ug/L	50	53.2	106	62-133	
Vinyl acetate	ug/L	100	99.6	100	66-157	
Vinyl chloride	ug/L	50	49.1	98	50-150	
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			111	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1633891

Parameter	Units	92279987001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.6	108	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	25.8	129	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	18.8	94	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.5	107	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.2	106	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.0	120	70-166	
1,1-Dichloropropene	ug/L	ND	20	22.5	112	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	20.4	102	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.2	106	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	21.5	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.7	98	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.3	101	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,2-Dichloroethane	ug/L	ND	20	23.2	116	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.5	102	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	20.0	100	70-130	
1,3-Dichloropropane	ug/L	ND	20	18.7	94	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.5	98	70-130	
2,2-Dichloropropane	ug/L	ND	20	23.3	116	70-130	
2-Butanone (MEK)	ug/L	ND	40	42.7	107	70-130	
2-Chlorotoluene	ug/L	ND	20	18.7	94	70-130	
2-Hexanone	ug/L	ND	40	42.7	107	70-130	
4-Chlorotoluene	ug/L	ND	20	19.7	98	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	45.6	114	70-130	
Acetone	ug/L	ND	40	50.1	125	70-130	
Benzene	ug/L	ND	20	20.3	102	70-148	
Bromobenzene	ug/L	ND	20	19.8	99	70-130	
Bromochloromethane	ug/L	ND	20	20.7	104	70-130	
Bromodichloromethane	ug/L	ND	20	22.2	111	70-130	
Bromoform	ug/L	ND	20	20.0	100	70-130	
Bromomethane	ug/L	ND	20	12.2	61	70-130	M1
Carbon tetrachloride	ug/L	ND	20	27.7	138	70-130	M1
Chlorobenzene	ug/L	ND	20	20.8	104	70-146	
Chloroethane	ug/L	ND	20	23.2	116	70-130	
Chloroform	ug/L	ND	20	23.6	118	70-130	
Chloromethane	ug/L	ND	20	23.2	116	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	21.5	107	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.1	100	70-130	
Dibromochloromethane	ug/L	ND	20	22.2	111	70-130	
Dibromomethane	ug/L	ND	20	24.5	122	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.0	115	70-130	
Diisopropyl ether	ug/L	2.7	20	24.0	106	70-130	
Ethylbenzene	ug/L	ND	20	20.8	104	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	29.5	148	70-130	M1
m&p-Xylene	ug/L	ND	40	42.0	105	70-130	
Methylene Chloride	ug/L	ND	20	18.7	93	70-130	
Naphthalene	ug/L	ND	20	18.8	94	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1633891

Parameter	Units	92279987001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.4	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	18.8	94	70-130	
Styrene	ug/L	ND	20	19.9	100	70-130	
Tetrachloroethene	ug/L	ND	20	22.3	111	70-130	
Toluene	ug/L	ND	20	21.1	106	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	20.9	104	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	21.2	106	70-130	
Trichloroethene	ug/L	ND	20	22.9	115	69-151	
Trichlorofluoromethane	ug/L	ND	20	26.0	130	70-130	
Vinyl acetate	ug/L	ND	40	34.6	86	70-130	
Vinyl chloride	ug/L	ND	20	22.5	112	70-130	
1,2-Dichloroethane-d4 (S)	%				113	70-130	
4-Bromofluorobenzene (S)	%				113	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1633892

Parameter	Units	92279649002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L		ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	0.00072J mg/L	0.77J		30	
1,1-Dichloroethene	ug/L	0.00078J mg/L	0.76J		30	
1,1-Dichloropropene	ug/L		ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L		ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L		ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L		ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L		ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L		ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1633892

Parameter	Units	92279649002 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromobenzene	ug/L		ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	0.0014 mg/L	1.3	6	30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	0.49 mg/L	466	6	30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L		ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L		ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	11.8 mg/L	11200	5	30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	0.0014 mg/L	1.5	3	30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	0.27 mg/L	237	12	30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L		ND		30	
Vinyl chloride	ug/L	0.0010 mg/L	1.1	3	30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	111	110	1		
4-Bromofluorobenzene (S)	%	113	112	1		
Toluene-d8 (S)	%	98	97	1		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34735 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92279773003, 92279773004, 92279773006, 92279773007, 92279773008, 92279773010

METHOD BLANK: 1630372 Matrix: Solid
Associated Lab Samples: 92279773003, 92279773004, 92279773006, 92279773007, 92279773008, 92279773010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.4	2.3	12/16/15 21:23	
1,1,1-Trichloroethane	ug/kg	ND	5.4	1.9	12/16/15 21:23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.4	2.0	12/16/15 21:23	
1,1,2-Trichloroethane	ug/kg	ND	5.4	2.3	12/16/15 21:23	
1,1-Dichloroethane	ug/kg	ND	5.4	1.6	12/16/15 21:23	
1,1-Dichloroethene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
1,1-Dichloropropene	ug/kg	ND	5.4	1.6	12/16/15 21:23	
1,2,3-Trichlorobenzene	ug/kg	ND	5.4	2.4	12/16/15 21:23	
1,2,3-Trichloropropane	ug/kg	ND	5.4	1.7	12/16/15 21:23	
1,2,4-Trichlorobenzene	ug/kg	ND	5.4	1.7	12/16/15 21:23	
1,2,4-Trimethylbenzene	ug/kg	ND	5.4	2.2	12/16/15 21:23	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.4	3.9	12/16/15 21:23	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.4	1.9	12/16/15 21:23	
1,2-Dichlorobenzene	ug/kg	ND	5.4	2.0	12/16/15 21:23	
1,2-Dichloroethane	ug/kg	ND	5.4	2.4	12/16/15 21:23	
1,2-Dichloropropane	ug/kg	ND	5.4	1.8	12/16/15 21:23	
1,3,5-Trimethylbenzene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
1,3-Dichlorobenzene	ug/kg	ND	5.4	2.2	12/16/15 21:23	
1,3-Dichloropropane	ug/kg	ND	5.4	2.0	12/16/15 21:23	
1,4-Dichlorobenzene	ug/kg	ND	5.4	1.8	12/16/15 21:23	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	161	129	12/16/15 21:23	
2,2-Dichloropropane	ug/kg	ND	5.4	1.8	12/16/15 21:23	
2-Butanone (MEK)	ug/kg	ND	108	3.1	12/16/15 21:23	
2-Chlorotoluene	ug/kg	ND	5.4	1.8	12/16/15 21:23	
2-Hexanone	ug/kg	ND	53.8	4.2	12/16/15 21:23	
4-Chlorotoluene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.8	4.0	12/16/15 21:23	
Acetone	ug/kg	ND	108	10.8	12/16/15 21:23	
Benzene	ug/kg	ND	5.4	1.7	12/16/15 21:23	
Bromobenzene	ug/kg	ND	5.4	2.2	12/16/15 21:23	
Bromochloromethane	ug/kg	ND	5.4	1.8	12/16/15 21:23	
Bromodichloromethane	ug/kg	ND	5.4	2.0	12/16/15 21:23	
Bromoform	ug/kg	ND	5.4	2.5	12/16/15 21:23	
Bromomethane	ug/kg	ND	10.8	2.7	12/16/15 21:23	
Carbon tetrachloride	ug/kg	ND	5.4	2.8	12/16/15 21:23	
Chlorobenzene	ug/kg	ND	5.4	2.0	12/16/15 21:23	
Chloroethane	ug/kg	ND	10.8	2.6	12/16/15 21:23	
Chloroform	ug/kg	ND	5.4	1.7	12/16/15 21:23	
Chloromethane	ug/kg	ND	10.8	2.6	12/16/15 21:23	
cis-1,2-Dichloroethene	ug/kg	ND	5.4	1.5	12/16/15 21:23	
cis-1,3-Dichloropropene	ug/kg	ND	5.4	1.9	12/16/15 21:23	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1630372 Matrix: Solid
Associated Lab Samples: 92279773003, 92279773004, 92279773006, 92279773007, 92279773008, 92279773010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.4	1.9	12/16/15 21:23	
Dibromomethane	ug/kg	ND	5.4	2.7	12/16/15 21:23	
Dichlorodifluoromethane	ug/kg	ND	10.8	3.9	12/16/15 21:23	
Diisopropyl ether	ug/kg	ND	5.4	1.8	12/16/15 21:23	
Ethylbenzene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
Hexachloro-1,3-butadiene	ug/kg	ND	5.4	2.2	12/16/15 21:23	
Isopropylbenzene (Cumene)	ug/kg	ND	5.4	2.0	12/16/15 21:23	
m&p-Xylene	ug/kg	ND	10.8	3.9	12/16/15 21:23	
Methyl-tert-butyl ether	ug/kg	ND	5.4	1.6	12/16/15 21:23	
Methylene Chloride	ug/kg	3.4J	21.5	3.2	12/16/15 21:23	
n-Butylbenzene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
n-Propylbenzene	ug/kg	ND	5.4	1.8	12/16/15 21:23	
Naphthalene	ug/kg	1.7J	5.4	1.3	12/16/15 21:23	
o-Xylene	ug/kg	ND	5.4	2.0	12/16/15 21:23	
p-Isopropyltoluene	ug/kg	ND	5.4	1.8	12/16/15 21:23	
sec-Butylbenzene	ug/kg	ND	5.4	1.7	12/16/15 21:23	
Styrene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
tert-Butylbenzene	ug/kg	ND	5.4	2.2	12/16/15 21:23	
Tetrachloroethene	ug/kg	ND	5.4	1.8	12/16/15 21:23	
Toluene	ug/kg	ND	5.4	1.9	12/16/15 21:23	
trans-1,2-Dichloroethene	ug/kg	ND	5.4	2.0	12/16/15 21:23	
trans-1,3-Dichloropropene	ug/kg	ND	5.4	1.6	12/16/15 21:23	
Trichloroethene	ug/kg	ND	5.4	2.3	12/16/15 21:23	
Trichlorofluoromethane	ug/kg	ND	5.4	2.4	12/16/15 21:23	
Vinyl acetate	ug/kg	ND	53.8	9.5	12/16/15 21:23	
Vinyl chloride	ug/kg	ND	10.8	1.9	12/16/15 21:23	
Xylene (Total)	ug/kg	ND	10.8	3.9	12/16/15 21:23	
1,2-Dichloroethane-d4 (S)	%	102	70-132		12/16/15 21:23	
4-Bromofluorobenzene (S)	%	96	70-130		12/16/15 21:23	
Toluene-d8 (S)	%	99	70-130		12/16/15 21:23	

LABORATORY CONTROL SAMPLE: 1630373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	53	53.3	101	74-137	
1,1,1-Trichloroethane	ug/kg	53	52.1	98	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	53	41.0	77	72-141	
1,1,2-Trichloroethane	ug/kg	53	53.2	100	78-138	
1,1-Dichloroethane	ug/kg	53	53.3	101	69-134	
1,1-Dichloroethene	ug/kg	53	56.7	107	67-138	
1,1-Dichloropropene	ug/kg	53	56.1	106	69-139	
1,2,3-Trichlorobenzene	ug/kg	53	51.5	97	70-146	
1,2,3-Trichloropropane	ug/kg	53	50.9	96	69-144	
1,2,4-Trichlorobenzene	ug/kg	53	48.9	92	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1630373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	53	53.1	100	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	53	55.8	105	65-140	
1,2-Dibromoethane (EDB)	ug/kg	53	55.6	105	77-135	
1,2-Dichlorobenzene	ug/kg	53	53.0	100	77-141	
1,2-Dichloroethane	ug/kg	53	52.3	99	65-137	
1,2-Dichloropropane	ug/kg	53	52.7	99	72-136	
1,3,5-Trimethylbenzene	ug/kg	53	51.7	98	76-133	
1,3-Dichlorobenzene	ug/kg	53	52.8	100	74-138	
1,3-Dichloropropane	ug/kg	53	53.0	100	71-139	
1,4-Dichlorobenzene	ug/kg	53	52.5	99	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1060	1080	102	54-154	
2,2-Dichloropropane	ug/kg	53	50.7	96	68-137	
2-Butanone (MEK)	ug/kg	106	107	101	58-147	
2-Chlorotoluene	ug/kg	53	53.6	101	73-139	
2-Hexanone	ug/kg	106	109	103	62-145	
4-Chlorotoluene	ug/kg	53	51.6	97	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	106	113	107	64-149	
Acetone	ug/kg	106	103J	97	53-153	
Benzene	ug/kg	53	56.0	106	73-135	
Bromobenzene	ug/kg	53	51.6	97	75-133	
Bromochloromethane	ug/kg	53	54.8	104	73-134	
Bromodichloromethane	ug/kg	53	52.1	98	71-135	
Bromoform	ug/kg	53	51.0	96	66-141	
Bromomethane	ug/kg	53	58.6	111	53-160	
Carbon tetrachloride	ug/kg	53	53.1	100	60-145	
Chlorobenzene	ug/kg	53	53.1	100	78-130	
Chloroethane	ug/kg	53	59.1	112	64-149	
Chloroform	ug/kg	53	53.2	101	70-134	
Chloromethane	ug/kg	53	54.1	102	52-150	
cis-1,2-Dichloroethene	ug/kg	53	52.4	99	70-133	
cis-1,3-Dichloropropene	ug/kg	53	52.8	100	68-134	
Dibromochloromethane	ug/kg	53	53.5	101	71-138	
Dibromomethane	ug/kg	53	53.6	101	74-130	
Dichlorodifluoromethane	ug/kg	53	53.1	100	40-160	
Diisopropyl ether	ug/kg	53	54.3	103	69-141	
Ethylbenzene	ug/kg	53	52.8	100	75-133	
Hexachloro-1,3-butadiene	ug/kg	53	50.9	96	68-143	
Isopropylbenzene (Cumene)	ug/kg	53	57.3	108	76-143	
m&p-Xylene	ug/kg	106	105	99	75-136	
Methyl-tert-butyl ether	ug/kg	53	56.2	106	68-144	
Methylene Chloride	ug/kg	53	56.7	107	45-154	
n-Butylbenzene	ug/kg	53	51.7	98	72-137	
n-Propylbenzene	ug/kg	53	51.2	97	76-136	
Naphthalene	ug/kg	53	54.8	104	68-151	
o-Xylene	ug/kg	53	53.6	101	76-141	
p-Isopropyltoluene	ug/kg	53	51.5	97	76-140	
sec-Butylbenzene	ug/kg	53	54.1	102	79-139	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1630373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	53	53.8	101	79-137	
tert-Butylbenzene	ug/kg	53	48.8	92	74-143	
Tetrachloroethene	ug/kg	53	45.0	85	71-138	
Toluene	ug/kg	53	53.6	101	74-131	
trans-1,2-Dichloroethene	ug/kg	53	54.8	103	67-135	
trans-1,3-Dichloropropene	ug/kg	53	52.8	100	65-146	
Trichloroethene	ug/kg	53	62.1	117	67-135	
Trichlorofluoromethane	ug/kg	53	50.1	95	59-144	
Vinyl acetate	ug/kg	106	37.9J	36	40-160	L0
Vinyl chloride	ug/kg	53	60.1	113	56-141	
Xylene (Total)	ug/kg	159	158	100	76-137	
1,2-Dichloroethane-d4 (S)	%			98	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34759 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92279773001, 92279773005, 92279773009

METHOD BLANK: 1631914 Matrix: Solid
Associated Lab Samples: 92279773001, 92279773005, 92279773009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	4.8	2.0	12/17/15 20:52	
1,1,1-Trichloroethane	ug/kg	ND	4.8	1.7	12/17/15 20:52	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4.8	1.8	12/17/15 20:52	
1,1,2-Trichloroethane	ug/kg	ND	4.8	2.0	12/17/15 20:52	
1,1-Dichloroethane	ug/kg	ND	4.8	1.4	12/17/15 20:52	
1,1-Dichloroethene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
1,1-Dichloropropene	ug/kg	ND	4.8	1.4	12/17/15 20:52	
1,2,3-Trichlorobenzene	ug/kg	ND	4.8	2.1	12/17/15 20:52	
1,2,3-Trichloropropane	ug/kg	ND	4.8	1.5	12/17/15 20:52	
1,2,4-Trichlorobenzene	ug/kg	ND	4.8	1.5	12/17/15 20:52	
1,2,4-Trimethylbenzene	ug/kg	ND	4.8	1.9	12/17/15 20:52	
1,2-Dibromo-3-chloropropane	ug/kg	ND	4.8	3.4	12/17/15 20:52	
1,2-Dibromoethane (EDB)	ug/kg	ND	4.8	1.7	12/17/15 20:52	
1,2-Dichlorobenzene	ug/kg	ND	4.8	1.8	12/17/15 20:52	
1,2-Dichloroethane	ug/kg	ND	4.8	2.1	12/17/15 20:52	
1,2-Dichloropropane	ug/kg	ND	4.8	1.6	12/17/15 20:52	
1,3,5-Trimethylbenzene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
1,3-Dichlorobenzene	ug/kg	ND	4.8	1.9	12/17/15 20:52	
1,3-Dichloropropane	ug/kg	ND	4.8	1.8	12/17/15 20:52	
1,4-Dichlorobenzene	ug/kg	ND	4.8	1.6	12/17/15 20:52	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	144	115	12/17/15 20:52	
2,2-Dichloropropane	ug/kg	ND	4.8	1.6	12/17/15 20:52	
2-Butanone (MEK)	ug/kg	ND	95.8	2.8	12/17/15 20:52	
2-Chlorotoluene	ug/kg	ND	4.8	1.6	12/17/15 20:52	
2-Hexanone	ug/kg	ND	47.9	3.7	12/17/15 20:52	
4-Chlorotoluene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	47.9	3.5	12/17/15 20:52	
Acetone	ug/kg	ND	95.8	9.6	12/17/15 20:52	
Benzene	ug/kg	ND	4.8	1.5	12/17/15 20:52	
Bromobenzene	ug/kg	ND	4.8	1.9	12/17/15 20:52	
Bromochloromethane	ug/kg	ND	4.8	1.6	12/17/15 20:52	
Bromodichloromethane	ug/kg	ND	4.8	1.8	12/17/15 20:52	
Bromoform	ug/kg	ND	4.8	2.2	12/17/15 20:52	
Bromomethane	ug/kg	ND	9.6	2.4	12/17/15 20:52	
Carbon tetrachloride	ug/kg	ND	4.8	2.5	12/17/15 20:52	
Chlorobenzene	ug/kg	ND	4.8	1.8	12/17/15 20:52	
Chloroethane	ug/kg	ND	9.6	2.3	12/17/15 20:52	
Chloroform	ug/kg	ND	4.8	1.5	12/17/15 20:52	
Chloromethane	ug/kg	ND	9.6	2.3	12/17/15 20:52	
cis-1,2-Dichloroethene	ug/kg	ND	4.8	1.3	12/17/15 20:52	
cis-1,3-Dichloropropene	ug/kg	ND	4.8	1.7	12/17/15 20:52	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1631914 Matrix: Solid
Associated Lab Samples: 92279773001, 92279773005, 92279773009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	4.8	1.7	12/17/15 20:52	
Dibromomethane	ug/kg	ND	4.8	2.4	12/17/15 20:52	
Dichlorodifluoromethane	ug/kg	ND	9.6	3.4	12/17/15 20:52	
Diisopropyl ether	ug/kg	ND	4.8	1.6	12/17/15 20:52	
Ethylbenzene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
Hexachloro-1,3-butadiene	ug/kg	ND	4.8	1.9	12/17/15 20:52	
Isopropylbenzene (Cumene)	ug/kg	ND	4.8	1.8	12/17/15 20:52	
m&p-Xylene	ug/kg	ND	9.6	3.4	12/17/15 20:52	
Methyl-tert-butyl ether	ug/kg	ND	4.8	1.4	12/17/15 20:52	
Methylene Chloride	ug/kg	ND	19.2	2.9	12/17/15 20:52	
n-Butylbenzene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
n-Propylbenzene	ug/kg	ND	4.8	1.6	12/17/15 20:52	
Naphthalene	ug/kg	ND	4.8	1.1	12/17/15 20:52	
o-Xylene	ug/kg	ND	4.8	1.8	12/17/15 20:52	
p-Isopropyltoluene	ug/kg	ND	4.8	1.6	12/17/15 20:52	
sec-Butylbenzene	ug/kg	ND	4.8	1.5	12/17/15 20:52	
Styrene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
tert-Butylbenzene	ug/kg	ND	4.8	1.9	12/17/15 20:52	
Tetrachloroethene	ug/kg	ND	4.8	1.6	12/17/15 20:52	
Toluene	ug/kg	ND	4.8	1.7	12/17/15 20:52	
trans-1,2-Dichloroethene	ug/kg	ND	4.8	1.8	12/17/15 20:52	
trans-1,3-Dichloropropene	ug/kg	ND	4.8	1.4	12/17/15 20:52	
Trichloroethene	ug/kg	ND	4.8	2.0	12/17/15 20:52	
Trichlorofluoromethane	ug/kg	ND	4.8	2.1	12/17/15 20:52	
Vinyl acetate	ug/kg	ND	47.9	8.4	12/17/15 20:52	
Vinyl chloride	ug/kg	ND	9.6	1.7	12/17/15 20:52	
Xylene (Total)	ug/kg	ND	9.6	3.4	12/17/15 20:52	
1,2-Dichloroethane-d4 (S)	%	99	70-132		12/17/15 20:52	
4-Bromofluorobenzene (S)	%	97	70-130		12/17/15 20:52	
Toluene-d8 (S)	%	100	70-130		12/17/15 20:52	

LABORATORY CONTROL SAMPLE: 1631915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	50.4	50.9	101	74-137	
1,1,1-Trichloroethane	ug/kg	50.4	51.4	102	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	50.4	44.5	88	72-141	
1,1,2-Trichloroethane	ug/kg	50.4	52.7	105	78-138	
1,1-Dichloroethane	ug/kg	50.4	51.1	101	69-134	
1,1-Dichloroethene	ug/kg	50.4	51.9	103	67-138	
1,1-Dichloropropene	ug/kg	50.4	53.6	106	69-139	
1,2,3-Trichlorobenzene	ug/kg	50.4	49.4	98	70-146	
1,2,3-Trichloropropane	ug/kg	50.4	54.7	109	69-144	
1,2,4-Trichlorobenzene	ug/kg	50.4	46.1	92	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1631915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	50.4	50.6	100	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	50.4	57.0	113	65-140	
1,2-Dibromoethane (EDB)	ug/kg	50.4	53.0	105	77-135	
1,2-Dichlorobenzene	ug/kg	50.4	50.7	101	77-141	
1,2-Dichloroethane	ug/kg	50.4	50.7	101	65-137	
1,2-Dichloropropane	ug/kg	50.4	51.5	102	72-136	
1,3,5-Trimethylbenzene	ug/kg	50.4	49.5	98	76-133	
1,3-Dichlorobenzene	ug/kg	50.4	50.1	99	74-138	
1,3-Dichloropropane	ug/kg	50.4	51.6	102	71-139	
1,4-Dichlorobenzene	ug/kg	50.4	49.7	99	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1010	1090	108	54-154	
2,2-Dichloropropane	ug/kg	50.4	49.4	98	68-137	
2-Butanone (MEK)	ug/kg	101	104	103	58-147	
2-Chlorotoluene	ug/kg	50.4	50.0	99	73-139	
2-Hexanone	ug/kg	101	110	109	62-145	
4-Chlorotoluene	ug/kg	50.4	49.8	99	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	101	113	112	64-149	
Acetone	ug/kg	101	99.7J	99	53-153	
Benzene	ug/kg	50.4	52.9	105	73-135	
Bromobenzene	ug/kg	50.4	50.0	99	75-133	
Bromochloromethane	ug/kg	50.4	49.4	98	73-134	
Bromodichloromethane	ug/kg	50.4	51.2	102	71-135	
Bromoform	ug/kg	50.4	51.2	102	66-141	
Bromomethane	ug/kg	50.4	58.5	116	53-160	
Carbon tetrachloride	ug/kg	50.4	52.4	104	60-145	
Chlorobenzene	ug/kg	50.4	51.1	101	78-130	
Chloroethane	ug/kg	50.4	57.0	113	64-149	
Chloroform	ug/kg	50.4	52.9	105	70-134	
Chloromethane	ug/kg	50.4	53.1	105	52-150	
cis-1,2-Dichloroethene	ug/kg	50.4	52.6	104	70-133	
cis-1,3-Dichloropropene	ug/kg	50.4	51.7	103	68-134	
Dibromochloromethane	ug/kg	50.4	52.0	103	71-138	
Dibromomethane	ug/kg	50.4	52.5	104	74-130	
Dichlorodifluoromethane	ug/kg	50.4	49.5	98	40-160	
Diisopropyl ether	ug/kg	50.4	53.7	106	69-141	
Ethylbenzene	ug/kg	50.4	50.6	100	75-133	
Hexachloro-1,3-butadiene	ug/kg	50.4	48.5	96	68-143	
Isopropylbenzene (Cumene)	ug/kg	50.4	54.7	109	76-143	
m&p-Xylene	ug/kg	101	101	100	75-136	
Methyl-tert-butyl ether	ug/kg	50.4	56.2	112	68-144	
Methylene Chloride	ug/kg	50.4	54.3	108	45-154	
n-Butylbenzene	ug/kg	50.4	49.1	97	72-137	
n-Propylbenzene	ug/kg	50.4	48.7	97	76-136	
Naphthalene	ug/kg	50.4	54.6	108	68-151	
o-Xylene	ug/kg	50.4	51.0	101	76-141	
p-Isopropyltoluene	ug/kg	50.4	48.9	97	76-140	
sec-Butylbenzene	ug/kg	50.4	52.6	104	79-139	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1631915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	50.4	52.2	104	79-137	
tert-Butylbenzene	ug/kg	50.4	46.4	92	74-143	
Tetrachloroethene	ug/kg	50.4	44.1	88	71-138	
Toluene	ug/kg	50.4	51.4	102	74-131	
trans-1,2-Dichloroethene	ug/kg	50.4	56.5	112	67-135	
trans-1,3-Dichloropropene	ug/kg	50.4	50.5	100	65-146	
Trichloroethene	ug/kg	50.4	57.2	114	67-135	
Trichlorofluoromethane	ug/kg	50.4	46.2	92	59-144	
Vinyl acetate	ug/kg	101	48.0J	48	40-160	
Vinyl chloride	ug/kg	50.4	58.3	116	56-141	
Xylene (Total)	ug/kg	151	152	100	76-137	
1,2-Dichloroethane-d4 (S)	%			101	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1632940

Parameter	Units	92279930018 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	28.4	28.2	99	70-130	
1,1,1-Trichloroethane	ug/kg	ND	28.4	29.2	99	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	28.4	28.1	99	70-130	
1,1,2-Trichloroethane	ug/kg	ND	28.4	28.2	99	70-130	
1,1-Dichloroethane	ug/kg	ND	28.4	26.1	92	70-130	
1,1-Dichloroethene	ug/kg	ND	28.4	27.0	95	49-180	
1,1-Dichloropropene	ug/kg	ND	28.4	31.4	111	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	28.4	20.0	70	70-130	
1,2,3-Trichloropropane	ug/kg	ND	28.4	23.6	83	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	28.4	21.5	76	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	28.4	31.5	111	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	28.4	30.6	108	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	28.4	29.7	105	70-130	
1,2-Dichlorobenzene	ug/kg	ND	28.4	27.5	97	70-130	
1,2-Dichloroethane	ug/kg	ND	28.4	27.5	97	70-130	
1,2-Dichloropropane	ug/kg	ND	28.4	28.4	100	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	28.4	31.4	111	70-130	
1,3-Dichlorobenzene	ug/kg	ND	28.4	28.1	99	70-130	
1,3-Dichloropropane	ug/kg	ND	28.4	29.5	104	70-130	
1,4-Dichlorobenzene	ug/kg	ND	28.4	27.2	96	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	567	658	116	70-130	
2,2-Dichloropropane	ug/kg	ND	28.4	28.7	101	70-130	
2-Butanone (MEK)	ug/kg	ND	56.7	55.8J	98	70-130	
2-Chlorotoluene	ug/kg	ND	28.4	30.4	107	70-130	
2-Hexanone	ug/kg	ND	56.7	53.8J	95	70-130	
4-Chlorotoluene	ug/kg	ND	28.4	29.7	105	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	56.7	55.7J	98	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1632940

Parameter	Units	92279930018 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	56.7	57.5J	44	70-130	M1
Benzene	ug/kg	ND	28.4	31.2	110	50-166	
Bromobenzene	ug/kg	ND	28.4	28.5	101	70-130	
Bromochloromethane	ug/kg	ND	28.4	27.4	96	70-130	
Bromodichloromethane	ug/kg	ND	28.4	27.3	96	70-130	
Bromoform	ug/kg	ND	28.4	26.0	92	70-130	
Bromomethane	ug/kg	ND	28.4	33.3	117	70-130	
Carbon tetrachloride	ug/kg	ND	28.4	28.3	100	70-130	
Chlorobenzene	ug/kg	ND	28.4	28.9	102	43-169	
Chloroethane	ug/kg	ND	28.4	33.3	117	70-130	
Chloroform	ug/kg	ND	28.4	28.5	100	70-130	
Chloromethane	ug/kg	ND	28.4	30.1	106	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	28.4	28.5	99	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	28.4	26.8	94	70-130	
Dibromochloromethane	ug/kg	ND	28.4	27.0	95	70-130	
Dibromomethane	ug/kg	ND	28.4	29.4	103	70-130	
Dichlorodifluoromethane	ug/kg	ND	28.4	29.1	102	70-130	
Diisopropyl ether	ug/kg	ND	28.4	28.1	99	70-130	
Ethylbenzene	ug/kg	ND	28.4	29.4	104	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	28.4	29.9	105	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	28.4	32.1	113	70-130	
m&p-Xylene	ug/kg	ND	56.7	59.8	105	70-130	
Methyl-tert-butyl ether	ug/kg	ND	28.4	29.2	102	70-130	
Methylene Chloride	ug/kg	47.0	28.4	58.4	40	70-130	M1
n-Butylbenzene	ug/kg	ND	28.4	32.1	113	70-130	
n-Propylbenzene	ug/kg	ND	28.4	32.1	113	70-130	
Naphthalene	ug/kg	ND	28.4	24.6	87	70-130	
o-Xylene	ug/kg	ND	28.4	28.6	101	70-130	
p-Isopropyltoluene	ug/kg	ND	28.4	32.2	113	70-130	
sec-Butylbenzene	ug/kg	ND	28.4	34.8	123	70-130	
Styrene	ug/kg	ND	28.4	27.8	97	70-130	
tert-Butylbenzene	ug/kg	ND	28.4	29.6	104	70-130	
Tetrachloroethene	ug/kg	9.5	28.4	35.0	90	70-130	
Toluene	ug/kg	ND	28.4	30.0	106	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	28.4	30.8	108	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	28.4	26.1	92	70-130	
Trichloroethene	ug/kg	ND	28.4	28.5	101	49-167	
Trichlorofluoromethane	ug/kg	ND	28.4	20.6	73	70-130	
Vinyl acetate	ug/kg	ND	56.7	46.4J	82	70-130	
Vinyl chloride	ug/kg	ND	28.4	33.9	120	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-132	
4-Bromofluorobenzene (S)	%				95	70-130	
Toluene-d8 (S)	%				102	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1632941

Parameter	Units	92279930024 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	6.5J		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1632941

Parameter	Units	92279930024 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	45.9	27.2J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	2.9J		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	102	103	7		
4-Bromofluorobenzene (S)	%	97	98	6		
Toluene-d8 (S)	%	98	100	8		

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34797 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92279773011, 92279773012, 92279773013, 92279773014, 92279773015, 92279773016, 92279773017, 92279773018, 92279773020, 92279773021, 92279773022, 92279773023, 92279773024, 92279773025, 92279773029

METHOD BLANK: 1633897 Matrix: Solid
Associated Lab Samples: 92279773011, 92279773012, 92279773013, 92279773014, 92279773015, 92279773016, 92279773017, 92279773018, 92279773020, 92279773021, 92279773022, 92279773023, 92279773024, 92279773025, 92279773029

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.2	2.2	12/19/15 11:34	
1,1,1-Trichloroethane	ug/kg	ND	5.2	1.9	12/19/15 11:34	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.2	2.0	12/19/15 11:34	
1,1,2-Trichloroethane	ug/kg	ND	5.2	2.2	12/19/15 11:34	
1,1-Dichloroethane	ug/kg	ND	5.2	1.6	12/19/15 11:34	
1,1-Dichloroethene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
1,1-Dichloropropene	ug/kg	ND	5.2	1.6	12/19/15 11:34	
1,2,3-Trichlorobenzene	ug/kg	ND	5.2	2.3	12/19/15 11:34	
1,2,3-Trichloropropane	ug/kg	ND	5.2	1.7	12/19/15 11:34	
1,2,4-Trichlorobenzene	ug/kg	ND	5.2	1.7	12/19/15 11:34	
1,2,4-Trimethylbenzene	ug/kg	ND	5.2	2.1	12/19/15 11:34	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.2	3.8	12/19/15 11:34	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.2	1.9	12/19/15 11:34	
1,2-Dichlorobenzene	ug/kg	ND	5.2	2.0	12/19/15 11:34	
1,2-Dichloroethane	ug/kg	ND	5.2	2.3	12/19/15 11:34	
1,2-Dichloropropane	ug/kg	ND	5.2	1.8	12/19/15 11:34	
1,3,5-Trimethylbenzene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
1,3-Dichlorobenzene	ug/kg	ND	5.2	2.1	12/19/15 11:34	
1,3-Dichloropropane	ug/kg	ND	5.2	2.0	12/19/15 11:34	
1,4-Dichlorobenzene	ug/kg	ND	5.2	1.8	12/19/15 11:34	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	157	125	12/19/15 11:34	
2,2-Dichloropropane	ug/kg	ND	5.2	1.8	12/19/15 11:34	
2-Butanone (MEK)	ug/kg	ND	104	3.0	12/19/15 11:34	
2-Chlorotoluene	ug/kg	ND	5.2	1.8	12/19/15 11:34	
2-Hexanone	ug/kg	ND	52.2	4.1	12/19/15 11:34	
4-Chlorotoluene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	52.2	3.9	12/19/15 11:34	
Acetone	ug/kg	ND	104	10.4	12/19/15 11:34	
Benzene	ug/kg	ND	5.2	1.7	12/19/15 11:34	
Bromobenzene	ug/kg	ND	5.2	2.1	12/19/15 11:34	
Bromochloromethane	ug/kg	ND	5.2	1.8	12/19/15 11:34	
Bromodichloromethane	ug/kg	ND	5.2	2.0	12/19/15 11:34	
Bromoform	ug/kg	ND	5.2	2.4	12/19/15 11:34	
Bromomethane	ug/kg	ND	10.4	2.6	12/19/15 11:34	
Carbon tetrachloride	ug/kg	ND	5.2	2.7	12/19/15 11:34	
Chlorobenzene	ug/kg	ND	5.2	2.0	12/19/15 11:34	
Chloroethane	ug/kg	ND	10.4	2.5	12/19/15 11:34	
Chloroform	ug/kg	ND	5.2	1.7	12/19/15 11:34	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1633897 Matrix: Solid

Associated Lab Samples: 92279773011, 92279773012, 92279773013, 92279773014, 92279773015, 92279773016, 92279773017, 92279773018, 92279773020, 92279773021, 92279773022, 92279773023, 92279773024, 92279773025, 92279773029

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloromethane	ug/kg	ND	10.4	2.5	12/19/15 11:34	
cis-1,2-Dichloroethene	ug/kg	ND	5.2	1.5	12/19/15 11:34	
cis-1,3-Dichloropropene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
Dibromochloromethane	ug/kg	ND	5.2	1.9	12/19/15 11:34	
Dibromomethane	ug/kg	ND	5.2	2.6	12/19/15 11:34	
Dichlorodifluoromethane	ug/kg	ND	10.4	3.8	12/19/15 11:34	
Diisopropyl ether	ug/kg	ND	5.2	1.8	12/19/15 11:34	
Ethylbenzene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
Hexachloro-1,3-butadiene	ug/kg	ND	5.2	2.1	12/19/15 11:34	
Isopropylbenzene (Cumene)	ug/kg	ND	5.2	2.0	12/19/15 11:34	
m&p-Xylene	ug/kg	ND	10.4	3.8	12/19/15 11:34	
Methyl-tert-butyl ether	ug/kg	ND	5.2	1.6	12/19/15 11:34	
Methylene Chloride	ug/kg	ND	20.9	3.1	12/19/15 11:34	
n-Butylbenzene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
n-Propylbenzene	ug/kg	ND	5.2	1.8	12/19/15 11:34	
Naphthalene	ug/kg	ND	5.2	1.3	12/19/15 11:34	
o-Xylene	ug/kg	ND	5.2	2.0	12/19/15 11:34	
p-Isopropyltoluene	ug/kg	ND	5.2	1.8	12/19/15 11:34	
sec-Butylbenzene	ug/kg	ND	5.2	1.7	12/19/15 11:34	
Styrene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
tert-Butylbenzene	ug/kg	ND	5.2	2.1	12/19/15 11:34	
Tetrachloroethene	ug/kg	ND	5.2	1.8	12/19/15 11:34	
Toluene	ug/kg	ND	5.2	1.9	12/19/15 11:34	
trans-1,2-Dichloroethene	ug/kg	ND	5.2	2.0	12/19/15 11:34	
trans-1,3-Dichloropropene	ug/kg	ND	5.2	1.6	12/19/15 11:34	
Trichloroethene	ug/kg	ND	5.2	2.2	12/19/15 11:34	
Trichlorofluoromethane	ug/kg	ND	5.2	2.3	12/19/15 11:34	
Vinyl acetate	ug/kg	ND	52.2	9.2	12/19/15 11:34	
Vinyl chloride	ug/kg	ND	10.4	1.9	12/19/15 11:34	
Xylene (Total)	ug/kg	ND	10.4	3.8	12/19/15 11:34	
1,2-Dichloroethane-d4 (S)	%	97	70-132		12/19/15 11:34	
4-Bromofluorobenzene (S)	%	98	70-130		12/19/15 11:34	
Toluene-d8 (S)	%	101	70-130		12/19/15 11:34	

LABORATORY CONTROL SAMPLE: 1633898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	49.1	47.1	96	74-137	
1,1,1-Trichloroethane	ug/kg	49.1	48.3	98	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	49.1	50.0	102	72-141	
1,1,2-Trichloroethane	ug/kg	49.1	49.7	101	78-138	
1,1-Dichloroethane	ug/kg	49.1	47.9	98	69-134	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1633898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/kg	49.1	51.4	105	67-138	
1,1-Dichloropropene	ug/kg	49.1	52.3	106	69-139	
1,2,3-Trichlorobenzene	ug/kg	49.1	52.0	106	70-146	
1,2,3-Trichloropropane	ug/kg	49.1	49.3	100	69-144	
1,2,4-Trichlorobenzene	ug/kg	49.1	49.7	101	68-148	
1,2,4-Trimethylbenzene	ug/kg	49.1	50.4	103	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	49.1	58.3	119	65-140	
1,2-Dibromoethane (EDB)	ug/kg	49.1	51.1	104	77-135	
1,2-Dichlorobenzene	ug/kg	49.1	51.3	104	77-141	
1,2-Dichloroethane	ug/kg	49.1	47.7	97	65-137	
1,2-Dichloropropane	ug/kg	49.1	48.0	98	72-136	
1,3,5-Trimethylbenzene	ug/kg	49.1	50.1	102	76-133	
1,3-Dichlorobenzene	ug/kg	49.1	50.4	103	74-138	
1,3-Dichloropropane	ug/kg	49.1	49.1	100	71-139	
1,4-Dichlorobenzene	ug/kg	49.1	51.3	104	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	982	1060	108	54-154	
2,2-Dichloropropane	ug/kg	49.1	48.6	99	68-137	
2-Butanone (MEK)	ug/kg	98.2	97.3J	99	58-147	
2-Chlorotoluene	ug/kg	49.1	50.0	102	73-139	
2-Hexanone	ug/kg	98.2	106	108	62-145	
4-Chlorotoluene	ug/kg	49.1	50.3	102	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	98.2	106	108	64-149	
Acetone	ug/kg	98.2	91.0J	93	53-153	
Benzene	ug/kg	49.1	50.4	103	73-135	
Bromobenzene	ug/kg	49.1	48.8	99	75-133	
Bromochloromethane	ug/kg	49.1	51.5	105	73-134	
Bromodichloromethane	ug/kg	49.1	48.8	99	71-135	
Bromoform	ug/kg	49.1	48.8	99	66-141	
Bromomethane	ug/kg	49.1	56.6	115	53-160	
Carbon tetrachloride	ug/kg	49.1	49.6	101	60-145	
Chlorobenzene	ug/kg	49.1	48.5	99	78-130	
Chloroethane	ug/kg	49.1	52.3	106	64-149	
Chloroform	ug/kg	49.1	50.5	103	70-134	
Chloromethane	ug/kg	49.1	50.9	104	52-150	
cis-1,2-Dichloroethene	ug/kg	49.1	49.2	100	70-133	
cis-1,3-Dichloropropene	ug/kg	49.1	49.2	100	68-134	
Dibromochloromethane	ug/kg	49.1	48.6	99	71-138	
Dibromomethane	ug/kg	49.1	49.5	101	74-130	
Dichlorodifluoromethane	ug/kg	49.1	47.2	96	40-160	
Diisopropyl ether	ug/kg	49.1	50.3	102	69-141	
Ethylbenzene	ug/kg	49.1	47.8	97	75-133	
Hexachloro-1,3-butadiene	ug/kg	49.1	49.6	101	68-143	
Isopropylbenzene (Cumene)	ug/kg	49.1	51.9	106	76-143	
m&p-Xylene	ug/kg	98.2	95.4	97	75-136	
Methyl-tert-butyl ether	ug/kg	49.1	52.6	107	68-144	
Methylene Chloride	ug/kg	49.1	48.7	99	45-154	
n-Butylbenzene	ug/kg	49.1	51.5	105	72-137	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1633898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Propylbenzene	ug/kg	49.1	48.6	99	76-136	
Naphthalene	ug/kg	49.1	55.0	112	68-151	
o-Xylene	ug/kg	49.1	47.7	97	76-141	
p-Isopropyltoluene	ug/kg	49.1	49.7	101	76-140	
sec-Butylbenzene	ug/kg	49.1	51.8	105	79-139	
Styrene	ug/kg	49.1	49.2	100	79-137	
tert-Butylbenzene	ug/kg	49.1	46.0	94	74-143	
Tetrachloroethene	ug/kg	49.1	41.1	84	71-138	
Toluene	ug/kg	49.1	49.1	100	74-131	
trans-1,2-Dichloroethene	ug/kg	49.1	51.9	106	67-135	
trans-1,3-Dichloropropene	ug/kg	49.1	49.0	100	65-146	
Trichloroethene	ug/kg	49.1	50.6	103	67-135	
Trichlorofluoromethane	ug/kg	49.1	53.9	110	59-144	
Vinyl acetate	ug/kg	98.2	99.4	101	40-160	
Vinyl chloride	ug/kg	49.1	56.9	116	56-141	
Xylene (Total)	ug/kg	147	143	97	76-137	
1,2-Dichloroethane-d4 (S)	%			98	70-132	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 1634001

Parameter	Units	92279773023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	22.7	22.9	101	70-130	
1,1,1-Trichloroethane	ug/kg	ND	22.7	22.9	101	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	22.7	23.9	105	70-130	
1,1,2-Trichloroethane	ug/kg	ND	22.7	23.4	103	70-130	
1,1-Dichloroethane	ug/kg	ND	22.7	21.9	95	70-130	
1,1-Dichloroethene	ug/kg	ND	22.7	23.0	101	49-180	
1,1-Dichloropropene	ug/kg	ND	22.7	25.0	110	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	22.7	22.7	100	70-130	
1,2,3-Trichloropropane	ug/kg	ND	22.7	22.2	98	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	22.7	22.2	98	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	22.7	24.2	106	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	22.7	23.2	102	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	22.7	23.9	105	70-130	
1,2-Dichlorobenzene	ug/kg	ND	22.7	24.1	106	70-130	
1,2-Dichloroethane	ug/kg	ND	22.7	23.7	104	70-130	
1,2-Dichloropropane	ug/kg	ND	22.7	22.9	101	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	22.7	24.1	106	70-130	
1,3-Dichlorobenzene	ug/kg	ND	22.7	24.1	106	70-130	
1,3-Dichloropropane	ug/kg	ND	22.7	22.6	99	70-130	
1,4-Dichlorobenzene	ug/kg	ND	22.7	24.3	107	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	455	490	107	70-130	
2,2-Dichloropropane	ug/kg	ND	22.7	23.0	101	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1634001

Parameter	Units	92279773023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Butanone (MEK)	ug/kg	ND	45.5	49.8J	109	70-130	
2-Chlorotoluene	ug/kg	ND	22.7	23.9	105	70-130	
2-Hexanone	ug/kg	ND	45.5	46.1J	101	70-130	
4-Chlorotoluene	ug/kg	ND	22.7	23.6	104	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	45.5	49.9J	110	70-130	
Acetone	ug/kg	19.8J	45.5	61.2J	91	70-130	
Benzene	ug/kg	ND	22.7	24.5	108	50-166	
Bromobenzene	ug/kg	ND	22.7	22.4	99	70-130	
Bromochloromethane	ug/kg	ND	22.7	23.9	105	70-130	
Bromodichloromethane	ug/kg	ND	22.7	22.9	101	70-130	
Bromoform	ug/kg	ND	22.7	21.2	93	70-130	
Bromomethane	ug/kg	ND	22.7	26.6	117	70-130	
Carbon tetrachloride	ug/kg	ND	22.7	23.3	102	70-130	
Chlorobenzene	ug/kg	ND	22.7	24.2	106	43-169	
Chloroethane	ug/kg	ND	22.7	26.8	118	70-130	
Chloroform	ug/kg	ND	22.7	23.7	104	70-130	
Chloromethane	ug/kg	ND	22.7	25.0	110	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	22.7	26.0	110	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	22.7	22.4	98	70-130	
Dibromochloromethane	ug/kg	ND	22.7	23.4	103	70-130	
Dibromomethane	ug/kg	ND	22.7	23.0	101	70-130	
Dichlorodifluoromethane	ug/kg	ND	22.7	22.9	101	70-130	
Diisopropyl ether	ug/kg	ND	22.7	23.9	105	70-130	
Ethylbenzene	ug/kg	ND	22.7	23.8	105	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	22.7	21.4	94	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	22.7	26.4	116	70-130	
m&p-Xylene	ug/kg	ND	45.5	48.5	106	70-130	
Methyl-tert-butyl ether	ug/kg	ND	22.7	24.9	109	70-130	
Methylene Chloride	ug/kg	30.9	22.7	50.4	86	70-130	
n-Butylbenzene	ug/kg	ND	22.7	24.8	109	70-130	
n-Propylbenzene	ug/kg	ND	22.7	23.9	105	70-130	
Naphthalene	ug/kg	ND	22.7	24.6	108	70-130	
o-Xylene	ug/kg	ND	22.7	23.7	104	70-130	
p-Isopropyltoluene	ug/kg	ND	22.7	24.0	105	70-130	
sec-Butylbenzene	ug/kg	ND	22.7	25.0	110	70-130	
Styrene	ug/kg	ND	22.7	23.9	102	70-130	
tert-Butylbenzene	ug/kg	ND	22.7	21.5	95	70-130	
Tetrachloroethene	ug/kg	ND	22.7	20.2	89	70-130	
Toluene	ug/kg	ND	22.7	23.7	104	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	22.7	25.4	111	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	22.7	22.4	98	70-130	
Trichloroethene	ug/kg	ND	22.7	22.9	101	49-167	
Trichlorofluoromethane	ug/kg	ND	22.7	23.4	103	70-130	
Vinyl acetate	ug/kg	ND	45.5	58.0	127	70-130	
Vinyl chloride	ug/kg	ND	22.7	27.5	121	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-132	
4-Bromofluorobenzene (S)	%				97	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1634001

Parameter	Units	92279773023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1634000

Parameter	Units	92279773011 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	60.5J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1634000

Parameter	Units	92279773011 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	11.6J	57.4		30	C9
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	100	101	4		
4-Bromofluorobenzene (S)	%	102	95	4		
Toluene-d8 (S)	%	100	100	3		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34798 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92279773030, 92279773031, 92279773033, 92279773034, 92279773035, 92279773036, 92279773037, 92279773038, 92279773039, 92279773040

METHOD BLANK: 1633899 Matrix: Solid
Associated Lab Samples: 92279773030, 92279773031, 92279773033, 92279773034, 92279773035, 92279773036, 92279773037, 92279773038, 92279773039, 92279773040

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.4	2.3	12/19/15 11:14	
1,1,1-Trichloroethane	ug/kg	ND	5.4	2.0	12/19/15 11:14	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.4	2.1	12/19/15 11:14	
1,1,2-Trichloroethane	ug/kg	ND	5.4	2.3	12/19/15 11:14	
1,1-Dichloroethane	ug/kg	ND	5.4	1.6	12/19/15 11:14	
1,1-Dichloroethene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
1,1-Dichloropropene	ug/kg	ND	5.4	1.6	12/19/15 11:14	
1,2,3-Trichlorobenzene	ug/kg	ND	5.4	2.4	12/19/15 11:14	
1,2,3-Trichloropropane	ug/kg	ND	5.4	1.7	12/19/15 11:14	
1,2,4-Trichlorobenzene	ug/kg	ND	5.4	1.7	12/19/15 11:14	
1,2,4-Trimethylbenzene	ug/kg	ND	5.4	2.2	12/19/15 11:14	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.4	3.9	12/19/15 11:14	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.4	2.0	12/19/15 11:14	
1,2-Dichlorobenzene	ug/kg	ND	5.4	2.1	12/19/15 11:14	
1,2-Dichloroethane	ug/kg	ND	5.4	2.4	12/19/15 11:14	
1,2-Dichloropropane	ug/kg	ND	5.4	1.9	12/19/15 11:14	
1,3,5-Trimethylbenzene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
1,3-Dichlorobenzene	ug/kg	ND	5.4	2.2	12/19/15 11:14	
1,3-Dichloropropane	ug/kg	ND	5.4	2.1	12/19/15 11:14	
1,4-Dichlorobenzene	ug/kg	ND	5.4	1.9	12/19/15 11:14	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	163	131	12/19/15 11:14	
2,2-Dichloropropane	ug/kg	ND	5.4	1.9	12/19/15 11:14	
2-Butanone (MEK)	ug/kg	ND	109	3.2	12/19/15 11:14	
2-Chlorotoluene	ug/kg	ND	5.4	1.9	12/19/15 11:14	
2-Hexanone	ug/kg	ND	54.5	4.2	12/19/15 11:14	
4-Chlorotoluene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.5	4.0	12/19/15 11:14	
Acetone	ug/kg	ND	109	10.9	12/19/15 11:14	
Benzene	ug/kg	ND	5.4	1.7	12/19/15 11:14	
Bromobenzene	ug/kg	ND	5.4	2.2	12/19/15 11:14	
Bromochloromethane	ug/kg	ND	5.4	1.9	12/19/15 11:14	
Bromodichloromethane	ug/kg	ND	5.4	2.1	12/19/15 11:14	
Bromoform	ug/kg	ND	5.4	2.5	12/19/15 11:14	
Bromomethane	ug/kg	ND	10.9	2.7	12/19/15 11:14	
Carbon tetrachloride	ug/kg	ND	5.4	2.8	12/19/15 11:14	
Chlorobenzene	ug/kg	ND	5.4	2.1	12/19/15 11:14	
Chloroethane	ug/kg	ND	10.9	2.6	12/19/15 11:14	
Chloroform	ug/kg	ND	5.4	1.7	12/19/15 11:14	
Chloromethane	ug/kg	ND	10.9	2.6	12/19/15 11:14	
cis-1,2-Dichloroethene	ug/kg	ND	5.4	1.5	12/19/15 11:14	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1633899 Matrix: Solid

Associated Lab Samples: 92279773030, 92279773031, 92279773033, 92279773034, 92279773035, 92279773036, 92279773037, 92279773038, 92279773039, 92279773040

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
Dibromochloromethane	ug/kg	ND	5.4	2.0	12/19/15 11:14	
Dibromomethane	ug/kg	ND	5.4	2.7	12/19/15 11:14	
Dichlorodifluoromethane	ug/kg	ND	10.9	3.9	12/19/15 11:14	
Diisopropyl ether	ug/kg	ND	5.4	1.9	12/19/15 11:14	
Ethylbenzene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
Hexachloro-1,3-butadiene	ug/kg	ND	5.4	2.2	12/19/15 11:14	
Isopropylbenzene (Cumene)	ug/kg	ND	5.4	2.1	12/19/15 11:14	
m&p-Xylene	ug/kg	ND	10.9	3.9	12/19/15 11:14	
Methyl-tert-butyl ether	ug/kg	ND	5.4	1.6	12/19/15 11:14	
Methylene Chloride	ug/kg	ND	21.8	3.3	12/19/15 11:14	
n-Butylbenzene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
n-Propylbenzene	ug/kg	ND	5.4	1.9	12/19/15 11:14	
Naphthalene	ug/kg	1.8J	5.4	1.3	12/19/15 11:14	
o-Xylene	ug/kg	ND	5.4	2.1	12/19/15 11:14	
p-Isopropyltoluene	ug/kg	ND	5.4	1.9	12/19/15 11:14	
sec-Butylbenzene	ug/kg	ND	5.4	1.7	12/19/15 11:14	
Styrene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
tert-Butylbenzene	ug/kg	ND	5.4	2.2	12/19/15 11:14	
Tetrachloroethene	ug/kg	ND	5.4	1.9	12/19/15 11:14	
Toluene	ug/kg	ND	5.4	2.0	12/19/15 11:14	
trans-1,2-Dichloroethene	ug/kg	ND	5.4	2.1	12/19/15 11:14	
trans-1,3-Dichloropropene	ug/kg	ND	5.4	1.6	12/19/15 11:14	
Trichloroethene	ug/kg	ND	5.4	2.3	12/19/15 11:14	
Trichlorofluoromethane	ug/kg	ND	5.4	2.4	12/19/15 11:14	
Vinyl acetate	ug/kg	ND	54.5	9.6	12/19/15 11:14	
Vinyl chloride	ug/kg	ND	10.9	2.0	12/19/15 11:14	
Xylene (Total)	ug/kg	ND	10.9	3.9	12/19/15 11:14	
1,2-Dichloroethane-d4 (S)	%	100	70-132		12/19/15 11:14	
4-Bromofluorobenzene (S)	%	99	70-130		12/19/15 11:14	
Toluene-d8 (S)	%	102	70-130		12/19/15 11:14	

LABORATORY CONTROL SAMPLE: 1633900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	49.7	46.4	93	74-137	
1,1,1-Trichloroethane	ug/kg	49.7	48.2	97	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	49.7	47.5	96	72-141	
1,1,2-Trichloroethane	ug/kg	49.7	47.9	96	78-138	
1,1-Dichloroethane	ug/kg	49.7	46.1	93	69-134	
1,1-Dichloroethene	ug/kg	49.7	49.5	100	67-138	
1,1-Dichloropropene	ug/kg	49.7	51.1	103	69-139	
1,2,3-Trichlorobenzene	ug/kg	49.7	49.4	99	70-146	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1633900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	49.7	46.8	94	69-144	
1,2,4-Trichlorobenzene	ug/kg	49.7	48.8	98	68-148	
1,2,4-Trimethylbenzene	ug/kg	49.7	50.0	101	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	49.7	52.4	106	65-140	
1,2-Dibromoethane (EDB)	ug/kg	49.7	49.0	99	77-135	
1,2-Dichlorobenzene	ug/kg	49.7	50.5	102	77-141	
1,2-Dichloroethane	ug/kg	49.7	48.4	97	65-137	
1,2-Dichloropropane	ug/kg	49.7	49.5	100	72-136	
1,3,5-Trimethylbenzene	ug/kg	49.7	49.0	99	76-133	
1,3-Dichlorobenzene	ug/kg	49.7	50.1	101	74-138	
1,3-Dichloropropane	ug/kg	49.7	46.3	93	71-139	
1,4-Dichlorobenzene	ug/kg	49.7	50.9	102	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	994	911	92	54-154	
2,2-Dichloropropane	ug/kg	49.7	48.4	97	68-137	
2-Butanone (MEK)	ug/kg	99.4	96.3J	97	58-147	
2-Chlorotoluene	ug/kg	49.7	49.2	99	73-139	
2-Hexanone	ug/kg	99.4	98.5	99	62-145	
4-Chlorotoluene	ug/kg	49.7	48.6	98	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	99.4	104	104	64-149	
Acetone	ug/kg	99.4	93.4J	94	53-153	
Benzene	ug/kg	49.7	51.3	103	73-135	
Bromobenzene	ug/kg	49.7	48.2	97	75-133	
Bromochloromethane	ug/kg	49.7	49.9	100	73-134	
Bromodichloromethane	ug/kg	49.7	48.8	98	71-135	
Bromoform	ug/kg	49.7	47.1	95	66-141	
Bromomethane	ug/kg	49.7	54.0	109	53-160	
Carbon tetrachloride	ug/kg	49.7	48.8	98	60-145	
Chlorobenzene	ug/kg	49.7	47.1	95	78-130	
Chloroethane	ug/kg	49.7	54.9	111	64-149	
Chloroform	ug/kg	49.7	49.7	100	70-134	
Chloromethane	ug/kg	49.7	50.5	102	52-150	
cis-1,2-Dichloroethene	ug/kg	49.7	49.2	99	70-133	
cis-1,3-Dichloropropene	ug/kg	49.7	48.5	98	68-134	
Dibromochloromethane	ug/kg	49.7	46.7	94	71-138	
Dibromomethane	ug/kg	49.7	48.8	98	74-130	
Dichlorodifluoromethane	ug/kg	49.7	46.1	93	40-160	
Diisopropyl ether	ug/kg	49.7	50.2	101	69-141	
Ethylbenzene	ug/kg	49.7	47.2	95	75-133	
Hexachloro-1,3-butadiene	ug/kg	49.7	47.5	95	68-143	
Isopropylbenzene (Cumene)	ug/kg	49.7	50.7	102	76-143	
m&p-Xylene	ug/kg	99.4	93.8	94	75-136	
Methyl-tert-butyl ether	ug/kg	49.7	51.5	104	68-144	
Methylene Chloride	ug/kg	49.7	48.0	97	45-154	
n-Butylbenzene	ug/kg	49.7	50.8	102	72-137	
n-Propylbenzene	ug/kg	49.7	48.0	97	76-136	
Naphthalene	ug/kg	49.7	52.8	106	68-151	
o-Xylene	ug/kg	49.7	47.0	95	76-141	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1633900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	49.7	48.9	98	76-140	
sec-Butylbenzene	ug/kg	49.7	50.9	102	79-139	
Styrene	ug/kg	49.7	48.5	98	79-137	
tert-Butylbenzene	ug/kg	49.7	44.3	89	74-143	
Tetrachloroethene	ug/kg	49.7	39.6	80	71-138	
Toluene	ug/kg	49.7	48.5	98	74-131	
trans-1,2-Dichloroethene	ug/kg	49.7	51.9	104	67-135	
trans-1,3-Dichloropropene	ug/kg	49.7	49.2	99	65-146	
Trichloroethene	ug/kg	49.7	49.5	100	67-135	
Trichlorofluoromethane	ug/kg	49.7	46.9	94	59-144	
Vinyl acetate	ug/kg	99.4	104	105	40-160	
Vinyl chloride	ug/kg	49.7	56.6	114	56-141	
Xylene (Total)	ug/kg	149	141	94	76-137	
1,2-Dichloroethane-d4 (S)	%			98	70-132	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1633998

Parameter	Units	92279773035 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	23.2	22.5	97	70-130	
1,1,1-Trichloroethane	ug/kg	9.8	23.2	34.4	106	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	23.2	6.3	27	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	23.2	23.3	101	70-130	
1,1-Dichloroethane	ug/kg	33.1	23.2	77.8	193	70-130	M1
1,1-Dichloroethene	ug/kg	ND	23.2	25.7	111	49-180	
1,1-Dichloropropene	ug/kg	ND	23.2	25.4	110	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	23.2	16.8	73	70-130	
1,2,3-Trichloropropane	ug/kg	ND	23.2	26.1	113	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	23.2	16.5	71	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	23.2	26.6	115	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	23.2	28.6	124	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	23.2	25.0	108	70-130	
1,2-Dichlorobenzene	ug/kg	ND	23.2	24.0	104	70-130	
1,2-Dichloroethane	ug/kg	ND	23.2	23.6	102	70-130	
1,2-Dichloropropane	ug/kg	ND	23.2	23.5	102	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	23.2	26.3	114	70-130	
1,3-Dichlorobenzene	ug/kg	ND	23.2	25.1	109	70-130	
1,3-Dichloropropane	ug/kg	ND	23.2	24.9	108	70-130	
1,4-Dichlorobenzene	ug/kg	ND	23.2	25.1	108	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	462	530	115	70-130	
2,2-Dichloropropane	ug/kg	ND	23.2	24.1	104	70-130	
2-Butanone (MEK)	ug/kg	32.2J	46.2	55.8J	51	70-130	M1
2-Chlorotoluene	ug/kg	ND	23.2	27.9	120	70-130	
2-Hexanone	ug/kg	ND	46.2	48.8J	106	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1633998

Parameter	Units	92279773035 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/kg	ND	23.2	26.9	116	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	46.2	51.1J	110	70-130	
Acetone	ug/kg	229	46.2	85.8J	-310	70-130	M1
Benzene	ug/kg	ND	23.2	26.1	112	50-166	
Bromobenzene	ug/kg	ND	23.2	26.3	114	70-130	
Bromochloromethane	ug/kg	ND	23.2	27.2	118	70-130	
Bromodichloromethane	ug/kg	ND	23.2	22.7	98	70-130	
Bromoform	ug/kg	ND	23.2	21.6	93	70-130	
Bromomethane	ug/kg	ND	23.2	29.0	126	70-130	
Carbon tetrachloride	ug/kg	ND	23.2	22.9	99	70-130	
Chlorobenzene	ug/kg	ND	23.2	24.6	107	43-169	
Chloroethane	ug/kg	ND	23.2	27.6	119	70-130	
Chloroform	ug/kg	ND	23.2	25.1	109	70-130	
Chloromethane	ug/kg	ND	23.2	24.9	108	70-130	
cis-1,2-Dichloroethene	ug/kg	2.3J	23.2	30.4	121	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	23.2	22.6	98	70-130	
Dibromochloromethane	ug/kg	ND	23.2	24.5	106	70-130	
Dibromomethane	ug/kg	ND	23.2	24.7	107	70-130	
Dichlorodifluoromethane	ug/kg	ND	23.2	24.2	105	70-130	
Diisopropyl ether	ug/kg	ND	23.2	25.5	110	70-130	
Ethylbenzene	ug/kg	ND	23.2	23.7	101	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	23.2	20.3	88	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	23.2	24.4	106	70-130	
m&p-Xylene	ug/kg	ND	46.2	47.7	102	70-130	
Methyl-tert-butyl ether	ug/kg	ND	23.2	25.1	107	70-130	
Methylene Chloride	ug/kg	44.3	23.2	35.5	-38	70-130	M1
n-Butylbenzene	ug/kg	ND	23.2	26.1	113	70-130	
n-Propylbenzene	ug/kg	ND	23.2	27.4	119	70-130	
Naphthalene	ug/kg	ND	23.2	21.7	94	70-130	
o-Xylene	ug/kg	ND	23.2	23.1	99	70-130	
p-Isopropyltoluene	ug/kg	ND	23.2	26.6	115	70-130	
sec-Butylbenzene	ug/kg	ND	23.2	27.8	120	70-130	
Styrene	ug/kg	ND	23.2	23.0	97	70-130	
tert-Butylbenzene	ug/kg	ND	23.2	25.2	109	70-130	
Tetrachloroethene	ug/kg	134	23.2	137	13	70-130	M1
Toluene	ug/kg	ND	23.2	24.4	103	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	23.2	26.7	115	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	23.2	22.5	97	70-130	
Trichloroethene	ug/kg	ND	23.2	37.9	154	49-167	
Trichlorofluoromethane	ug/kg	ND	23.2	20.4	88	70-130	
Vinyl acetate	ug/kg	ND	46.2	ND	20	70-130	M1
Vinyl chloride	ug/kg	ND	23.2	28.9	122	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-132	
4-Bromofluorobenzene (S)	%				90	70-130	
Toluene-d8 (S)	%				98	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1633999

Parameter	Units	92279773031 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	117J	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1633999

Parameter	Units	92279773031 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	25.8J	106		30	C9
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	124	147	20		S1
4-Bromofluorobenzene (S)	%	105	87	16		
Toluene-d8 (S)	%	101	99	0		IO

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34817 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92279773019, 92279773026, 92279773027, 92279773028, 92279773032, 92279773041, 92279773042, 92279773043, 92279773044, 92279773045, 92279773047

METHOD BLANK: 1634021 Matrix: Solid
Associated Lab Samples: 92279773019, 92279773026, 92279773027, 92279773028, 92279773032, 92279773041, 92279773042, 92279773043, 92279773044, 92279773045, 92279773047

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.4	2.3	12/20/15 13:54	
1,1,1-Trichloroethane	ug/kg	ND	5.4	2.0	12/20/15 13:54	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.4	2.1	12/20/15 13:54	
1,1,2-Trichloroethane	ug/kg	ND	5.4	2.3	12/20/15 13:54	
1,1-Dichloroethane	ug/kg	ND	5.4	1.6	12/20/15 13:54	
1,1-Dichloroethene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
1,1-Dichloropropene	ug/kg	ND	5.4	1.6	12/20/15 13:54	
1,2,3-Trichlorobenzene	ug/kg	ND	5.4	2.4	12/20/15 13:54	
1,2,3-Trichloropropane	ug/kg	ND	5.4	1.7	12/20/15 13:54	
1,2,4-Trichlorobenzene	ug/kg	ND	5.4	1.7	12/20/15 13:54	
1,2,4-Trimethylbenzene	ug/kg	ND	5.4	2.2	12/20/15 13:54	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.4	3.9	12/20/15 13:54	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.4	2.0	12/20/15 13:54	
1,2-Dichlorobenzene	ug/kg	ND	5.4	2.1	12/20/15 13:54	
1,2-Dichloroethane	ug/kg	ND	5.4	2.4	12/20/15 13:54	
1,2-Dichloropropane	ug/kg	ND	5.4	1.8	12/20/15 13:54	
1,3,5-Trimethylbenzene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
1,3-Dichlorobenzene	ug/kg	ND	5.4	2.2	12/20/15 13:54	
1,3-Dichloropropane	ug/kg	ND	5.4	2.1	12/20/15 13:54	
1,4-Dichlorobenzene	ug/kg	ND	5.4	1.8	12/20/15 13:54	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	163	130	12/20/15 13:54	
2,2-Dichloropropane	ug/kg	ND	5.4	1.8	12/20/15 13:54	
2-Butanone (MEK)	ug/kg	ND	109	3.2	12/20/15 13:54	
2-Chlorotoluene	ug/kg	ND	5.4	1.8	12/20/15 13:54	
2-Hexanone	ug/kg	ND	54.3	4.2	12/20/15 13:54	
4-Chlorotoluene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.3	4.0	12/20/15 13:54	
Acetone	ug/kg	ND	109	10.9	12/20/15 13:54	
Benzene	ug/kg	ND	5.4	1.7	12/20/15 13:54	
Bromobenzene	ug/kg	ND	5.4	2.2	12/20/15 13:54	
Bromochloromethane	ug/kg	ND	5.4	1.8	12/20/15 13:54	
Bromodichloromethane	ug/kg	ND	5.4	2.1	12/20/15 13:54	
Bromoform	ug/kg	ND	5.4	2.5	12/20/15 13:54	
Bromomethane	ug/kg	ND	10.9	2.7	12/20/15 13:54	
Carbon tetrachloride	ug/kg	ND	5.4	2.8	12/20/15 13:54	
Chlorobenzene	ug/kg	ND	5.4	2.1	12/20/15 13:54	
Chloroethane	ug/kg	ND	10.9	2.6	12/20/15 13:54	
Chloroform	ug/kg	ND	5.4	1.7	12/20/15 13:54	
Chloromethane	ug/kg	ND	10.9	2.6	12/20/15 13:54	
cis-1,2-Dichloroethene	ug/kg	ND	5.4	1.5	12/20/15 13:54	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1634021 Matrix: Solid

Associated Lab Samples: 92279773019, 92279773026, 92279773027, 92279773028, 92279773032, 92279773041, 92279773042, 92279773043, 92279773044, 92279773045, 92279773047

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
Dibromochloromethane	ug/kg	ND	5.4	2.0	12/20/15 13:54	
Dibromomethane	ug/kg	ND	5.4	2.7	12/20/15 13:54	
Dichlorodifluoromethane	ug/kg	ND	10.9	3.9	12/20/15 13:54	
Diisopropyl ether	ug/kg	ND	5.4	1.8	12/20/15 13:54	
Ethylbenzene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
Hexachloro-1,3-butadiene	ug/kg	ND	5.4	2.2	12/20/15 13:54	
Isopropylbenzene (Cumene)	ug/kg	ND	5.4	2.1	12/20/15 13:54	
m&p-Xylene	ug/kg	ND	10.9	3.9	12/20/15 13:54	
Methyl-tert-butyl ether	ug/kg	ND	5.4	1.6	12/20/15 13:54	
Methylene Chloride	ug/kg	ND	21.7	3.3	12/20/15 13:54	
n-Butylbenzene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
n-Propylbenzene	ug/kg	ND	5.4	1.8	12/20/15 13:54	
Naphthalene	ug/kg	ND	5.4	1.3	12/20/15 13:54	
o-Xylene	ug/kg	ND	5.4	2.1	12/20/15 13:54	
p-Isopropyltoluene	ug/kg	ND	5.4	1.8	12/20/15 13:54	
sec-Butylbenzene	ug/kg	ND	5.4	1.7	12/20/15 13:54	
Styrene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
tert-Butylbenzene	ug/kg	ND	5.4	2.2	12/20/15 13:54	
Tetrachloroethene	ug/kg	ND	5.4	1.8	12/20/15 13:54	
Toluene	ug/kg	ND	5.4	2.0	12/20/15 13:54	
trans-1,2-Dichloroethene	ug/kg	ND	5.4	2.1	12/20/15 13:54	
trans-1,3-Dichloropropene	ug/kg	ND	5.4	1.6	12/20/15 13:54	
Trichloroethene	ug/kg	ND	5.4	2.3	12/20/15 13:54	
Trichlorofluoromethane	ug/kg	ND	5.4	2.4	12/20/15 13:54	
Vinyl acetate	ug/kg	ND	54.3	9.6	12/20/15 13:54	
Vinyl chloride	ug/kg	ND	10.9	2.0	12/20/15 13:54	
Xylene (Total)	ug/kg	ND	10.9	3.9	12/20/15 13:54	
1,2-Dichloroethane-d4 (S)	%	99	70-132		12/20/15 13:54	
4-Bromofluorobenzene (S)	%	91	70-130		12/20/15 13:54	
Toluene-d8 (S)	%	100	70-130		12/20/15 13:54	

LABORATORY CONTROL SAMPLE: 1634022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	49.7	49.6	100	74-137	
1,1,1-Trichloroethane	ug/kg	49.7	50.9	102	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	49.7	52.2	105	72-141	
1,1,2-Trichloroethane	ug/kg	49.7	48.1	97	78-138	
1,1-Dichloroethane	ug/kg	49.7	48.6	98	69-134	
1,1-Dichloroethene	ug/kg	49.7	54.8	110	67-138	
1,1-Dichloropropene	ug/kg	49.7	54.3	109	69-139	
1,2,3-Trichlorobenzene	ug/kg	49.7	53.6	108	70-146	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1634022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	49.7	51.9	104	69-144	
1,2,4-Trichlorobenzene	ug/kg	49.7	51.9	104	68-148	
1,2,4-Trimethylbenzene	ug/kg	49.7	54.4	109	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	49.7	57.5	116	65-140	
1,2-Dibromoethane (EDB)	ug/kg	49.7	52.3	105	77-135	
1,2-Dichlorobenzene	ug/kg	49.7	53.0	107	77-141	
1,2-Dichloroethane	ug/kg	49.7	50.0	101	65-137	
1,2-Dichloropropane	ug/kg	49.7	48.6	98	72-136	
1,3,5-Trimethylbenzene	ug/kg	49.7	52.5	106	76-133	
1,3-Dichlorobenzene	ug/kg	49.7	53.8	108	74-138	
1,3-Dichloropropane	ug/kg	49.7	49.8	100	71-139	
1,4-Dichlorobenzene	ug/kg	49.7	53.3	107	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	994	1080	108	54-154	
2,2-Dichloropropane	ug/kg	49.7	50.1	101	68-137	
2-Butanone (MEK)	ug/kg	99.4	107	108	58-147	
2-Chlorotoluene	ug/kg	49.7	53.6	108	73-139	
2-Hexanone	ug/kg	99.4	106	106	62-145	
4-Chlorotoluene	ug/kg	49.7	53.1	107	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	99.4	108	109	64-149	
Acetone	ug/kg	99.4	93.2J	94	53-153	
Benzene	ug/kg	49.7	52.4	106	73-135	
Bromobenzene	ug/kg	49.7	51.5	104	75-133	
Bromochloromethane	ug/kg	49.7	55.7	112	73-134	
Bromodichloromethane	ug/kg	49.7	48.7	98	71-135	
Bromoform	ug/kg	49.7	48.4	97	66-141	
Bromomethane	ug/kg	49.7	57.4	116	53-160	
Carbon tetrachloride	ug/kg	49.7	50.7	102	60-145	
Chlorobenzene	ug/kg	49.7	51.0	103	78-130	
Chloroethane	ug/kg	49.7	57.5	116	64-149	
Chloroform	ug/kg	49.7	50.9	102	70-134	
Chloromethane	ug/kg	49.7	53.3	107	52-150	
cis-1,2-Dichloroethene	ug/kg	49.7	52.5	106	70-133	
cis-1,3-Dichloropropene	ug/kg	49.7	48.5	98	68-134	
Dibromochloromethane	ug/kg	49.7	51.1	103	71-138	
Dibromomethane	ug/kg	49.7	50.4	102	74-130	
Dichlorodifluoromethane	ug/kg	49.7	48.5	98	40-160	
Diisopropyl ether	ug/kg	49.7	52.3	105	69-141	
Ethylbenzene	ug/kg	49.7	51.3	103	75-133	
Hexachloro-1,3-butadiene	ug/kg	49.7	51.9	104	68-143	
Isopropylbenzene (Cumene)	ug/kg	49.7	55.9	112	76-143	
m&p-Xylene	ug/kg	99.4	103	103	75-136	
Methyl-tert-butyl ether	ug/kg	49.7	52.1	105	68-144	
Methylene Chloride	ug/kg	49.7	52.5	106	45-154	
n-Butylbenzene	ug/kg	49.7	55.2	111	72-137	
n-Propylbenzene	ug/kg	49.7	52.3	105	76-136	
Naphthalene	ug/kg	49.7	55.3	111	68-151	
o-Xylene	ug/kg	49.7	49.7	100	76-141	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1634022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	49.7	52.7	106	76-140	
sec-Butylbenzene	ug/kg	49.7	55.4	111	79-139	
Styrene	ug/kg	49.7	51.6	104	79-137	
tert-Butylbenzene	ug/kg	49.7	48.1	97	74-143	
Tetrachloroethene	ug/kg	49.7	44.3	89	71-138	
Toluene	ug/kg	49.7	50.0	101	74-131	
trans-1,2-Dichloroethene	ug/kg	49.7	55.2	111	67-135	
trans-1,3-Dichloropropene	ug/kg	49.7	48.5	98	65-146	
Trichloroethene	ug/kg	49.7	50.4	102	67-135	
Trichlorofluoromethane	ug/kg	49.7	55.0	111	59-144	
Vinyl acetate	ug/kg	99.4	122	123	40-160	
Vinyl chloride	ug/kg	49.7	59.1	119	56-141	
Xylene (Total)	ug/kg	149	152	102	76-137	
1,2-Dichloroethane-d4 (S)	%			100	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 1634158

Parameter	Units	92279773044 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	23.8	23.7	99	70-130	
1,1,1-Trichloroethane	ug/kg	ND	23.8	24.6	103	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	23.8	31.6	133	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	23.8	28.6	120	70-130	
1,1-Dichloroethane	ug/kg	ND	23.8	25.3	106	70-130	
1,1-Dichloroethene	ug/kg	ND	23.8	25.3	106	49-180	
1,1-Dichloropropene	ug/kg	ND	23.8	25.2	106	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	23.8	24.0	101	70-130	
1,2,3-Trichloropropane	ug/kg	ND	23.8	31.4	132	70-130	M1
1,2,4-Trichlorobenzene	ug/kg	ND	23.8	21.9	92	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	23.8	23.5	99	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	23.8	36.0	151	70-130	M1
1,2-Dibromoethane (EDB)	ug/kg	ND	23.8	28.7	121	70-130	
1,2-Dichlorobenzene	ug/kg	ND	23.8	25.9	109	70-130	
1,2-Dichloroethane	ug/kg	ND	23.8	29.6	124	70-130	
1,2-Dichloropropane	ug/kg	ND	23.8	24.1	101	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	23.8	22.6	95	70-130	
1,3-Dichlorobenzene	ug/kg	ND	23.8	24.8	104	70-130	
1,3-Dichloropropane	ug/kg	ND	23.8	28.0	118	70-130	
1,4-Dichlorobenzene	ug/kg	ND	23.8	24.4	103	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	476	671	141	70-130	M1
2,2-Dichloropropane	ug/kg	ND	23.8	23.2	98	70-130	
2-Butanone (MEK)	ug/kg	ND	47.6	73.8J	155	70-130	M1
2-Chlorotoluene	ug/kg	ND	23.8	23.0	97	70-130	
2-Hexanone	ug/kg	ND	47.6	75.1	158	70-130	M1

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1634158

Parameter	Units	92279773044 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Chlorotoluene	ug/kg	ND	23.8	23.7	100	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	47.6	77.1	162	70-130	M1
Acetone	ug/kg	ND	47.6	97.9J	206	70-130	M1
Benzene	ug/kg	ND	23.8	25.1	106	50-166	
Bromobenzene	ug/kg	ND	23.8	24.6	103	70-130	
Bromochloromethane	ug/kg	ND	23.8	30.7	129	70-130	
Bromodichloromethane	ug/kg	ND	23.8	25.0	105	70-130	
Bromoform	ug/kg	ND	23.8	27.4	115	70-130	
Bromomethane	ug/kg	ND	23.8	27.2	114	70-130	
Carbon tetrachloride	ug/kg	ND	23.8	22.2	93	70-130	
Chlorobenzene	ug/kg	ND	23.8	25.1	106	43-169	
Chloroethane	ug/kg	ND	23.8	29.0	122	70-130	
Chloroform	ug/kg	ND	23.8	27.3	115	70-130	
Chloromethane	ug/kg	ND	23.8	24.5	103	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	23.8	27.5	116	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	23.8	25.6	108	70-130	
Dibromochloromethane	ug/kg	ND	23.8	26.6	112	70-130	
Dibromomethane	ug/kg	ND	23.8	30.3	127	70-130	
Dichlorodifluoromethane	ug/kg	ND	23.8	21.0	88	70-130	
Diisopropyl ether	ug/kg	ND	23.8	29.4	124	70-130	
Ethylbenzene	ug/kg	ND	23.8	23.4	99	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	23.8	15.4	65	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	23.8	24.6	104	70-130	
m&p-Xylene	ug/kg	ND	47.6	46.7	98	70-130	
Methyl-tert-butyl ether	ug/kg	ND	23.8	34.2	144	70-130	M1
Methylene Chloride	ug/kg	18.0J	23.8	35.3	73	70-130	
n-Butylbenzene	ug/kg	ND	23.8	21.5	90	70-130	
n-Propylbenzene	ug/kg	ND	23.8	22.3	94	70-130	
Naphthalene	ug/kg	ND	23.8	30.9	130	70-130	
o-Xylene	ug/kg	ND	23.8	23.9	101	70-130	
p-Isopropyltoluene	ug/kg	ND	23.8	21.0	88	70-130	
sec-Butylbenzene	ug/kg	ND	23.8	22.6	95	70-130	
Styrene	ug/kg	ND	23.8	12.9	54	70-130	M1
tert-Butylbenzene	ug/kg	ND	23.8	20.4	86	70-130	
Tetrachloroethene	ug/kg	ND	23.8	18.9	80	70-130	
Toluene	ug/kg	ND	23.8	24.3	101	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	23.8	27.5	116	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	23.8	27.4	115	70-130	
Trichloroethene	ug/kg	ND	23.8	22.7	96	49-167	
Trichlorofluoromethane	ug/kg	ND	23.8	22.8	96	70-130	
Vinyl acetate	ug/kg	ND	47.6	62.3	131	70-130	M1
Vinyl chloride	ug/kg	ND	23.8	27.8	117	70-130	
1,2-Dichloroethane-d4 (S)	%				116	70-132	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				99	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1634157

Parameter	Units	92279773043 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	32.2J	104J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	3.6J	4.4J		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1634157

Parameter	Units	92279773043 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	55.1	7.8J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	139	115	34		
4-Bromofluorobenzene (S)	%	90	97	8		
Toluene-d8 (S)	%	102	102	16		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: MSV/34834
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92279773046

METHOD BLANK: 1634344
Matrix: Solid
Associated Lab Samples: 92279773046

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.5	2.3	12/21/15 11:41	
1,1,1-Trichloroethane	ug/kg	ND	5.5	2.0	12/21/15 11:41	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.5	2.1	12/21/15 11:41	
1,1,2-Trichloroethane	ug/kg	ND	5.5	2.3	12/21/15 11:41	
1,1-Dichloroethane	ug/kg	ND	5.5	1.6	12/21/15 11:41	
1,1-Dichloroethene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
1,1-Dichloropropene	ug/kg	ND	5.5	1.6	12/21/15 11:41	
1,2,3-Trichlorobenzene	ug/kg	ND	5.5	2.4	12/21/15 11:41	
1,2,3-Trichloropropane	ug/kg	ND	5.5	1.8	12/21/15 11:41	
1,2,4-Trichlorobenzene	ug/kg	ND	5.5	1.8	12/21/15 11:41	
1,2,4-Trimethylbenzene	ug/kg	ND	5.5	2.2	12/21/15 11:41	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.5	3.9	12/21/15 11:41	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.5	2.0	12/21/15 11:41	
1,2-Dichlorobenzene	ug/kg	ND	5.5	2.1	12/21/15 11:41	
1,2-Dichloroethane	ug/kg	ND	5.5	2.4	12/21/15 11:41	
1,2-Dichloropropane	ug/kg	ND	5.5	1.9	12/21/15 11:41	
1,3,5-Trimethylbenzene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
1,3-Dichlorobenzene	ug/kg	ND	5.5	2.2	12/21/15 11:41	
1,3-Dichloropropane	ug/kg	ND	5.5	2.1	12/21/15 11:41	
1,4-Dichlorobenzene	ug/kg	ND	5.5	1.9	12/21/15 11:41	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	164	131	12/21/15 11:41	
2,2-Dichloropropane	ug/kg	ND	5.5	1.9	12/21/15 11:41	
2-Butanone (MEK)	ug/kg	ND	109	3.2	12/21/15 11:41	
2-Chlorotoluene	ug/kg	ND	5.5	1.9	12/21/15 11:41	
2-Hexanone	ug/kg	ND	54.7	4.3	12/21/15 11:41	
4-Chlorotoluene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	54.7	4.0	12/21/15 11:41	
Acetone	ug/kg	ND	109	10.9	12/21/15 11:41	
Benzene	ug/kg	ND	5.5	1.8	12/21/15 11:41	
Bromobenzene	ug/kg	ND	5.5	2.2	12/21/15 11:41	
Bromochloromethane	ug/kg	ND	5.5	1.9	12/21/15 11:41	
Bromodichloromethane	ug/kg	ND	5.5	2.1	12/21/15 11:41	
Bromoform	ug/kg	ND	5.5	2.5	12/21/15 11:41	
Bromomethane	ug/kg	ND	10.9	2.7	12/21/15 11:41	
Carbon tetrachloride	ug/kg	ND	5.5	2.8	12/21/15 11:41	
Chlorobenzene	ug/kg	ND	5.5	2.1	12/21/15 11:41	
Chloroethane	ug/kg	ND	10.9	2.6	12/21/15 11:41	
Chloroform	ug/kg	ND	5.5	1.8	12/21/15 11:41	
Chloromethane	ug/kg	ND	10.9	2.6	12/21/15 11:41	
cis-1,2-Dichloroethene	ug/kg	ND	5.5	1.5	12/21/15 11:41	
cis-1,3-Dichloropropene	ug/kg	ND	5.5	2.0	12/21/15 11:41	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

METHOD BLANK: 1634344 Matrix: Solid
Associated Lab Samples: 92279773046

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.5	2.0	12/21/15 11:41	
Dibromomethane	ug/kg	ND	5.5	2.7	12/21/15 11:41	
Dichlorodifluoromethane	ug/kg	ND	10.9	3.9	12/21/15 11:41	
Diisopropyl ether	ug/kg	ND	5.5	1.9	12/21/15 11:41	
Ethylbenzene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
Hexachloro-1,3-butadiene	ug/kg	ND	5.5	2.2	12/21/15 11:41	
Isopropylbenzene (Cumene)	ug/kg	ND	5.5	2.1	12/21/15 11:41	
m&p-Xylene	ug/kg	ND	10.9	3.9	12/21/15 11:41	
Methyl-tert-butyl ether	ug/kg	ND	5.5	1.6	12/21/15 11:41	
Methylene Chloride	ug/kg	ND	21.9	3.3	12/21/15 11:41	
n-Butylbenzene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
n-Propylbenzene	ug/kg	ND	5.5	1.9	12/21/15 11:41	
Naphthalene	ug/kg	1.8J	5.5	1.3	12/21/15 11:41	
o-Xylene	ug/kg	ND	5.5	2.1	12/21/15 11:41	
p-Isopropyltoluene	ug/kg	ND	5.5	1.9	12/21/15 11:41	
sec-Butylbenzene	ug/kg	ND	5.5	1.8	12/21/15 11:41	
Styrene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
tert-Butylbenzene	ug/kg	ND	5.5	2.2	12/21/15 11:41	
Tetrachloroethene	ug/kg	ND	5.5	1.9	12/21/15 11:41	
Toluene	ug/kg	ND	5.5	2.0	12/21/15 11:41	
trans-1,2-Dichloroethene	ug/kg	ND	5.5	2.1	12/21/15 11:41	
trans-1,3-Dichloropropene	ug/kg	ND	5.5	1.6	12/21/15 11:41	
Trichloroethene	ug/kg	ND	5.5	2.3	12/21/15 11:41	
Trichlorofluoromethane	ug/kg	ND	5.5	2.4	12/21/15 11:41	
Vinyl acetate	ug/kg	ND	54.7	9.6	12/21/15 11:41	
Vinyl chloride	ug/kg	ND	10.9	2.0	12/21/15 11:41	
Xylene (Total)	ug/kg	ND	10.9	3.9	12/21/15 11:41	
1,2-Dichloroethane-d4 (S)	%	98	70-132		12/21/15 11:41	
4-Bromofluorobenzene (S)	%	99	70-130		12/21/15 11:41	
Toluene-d8 (S)	%	101	70-130		12/21/15 11:41	

LABORATORY CONTROL SAMPLE: 1634345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	52.5	50.4	96	74-137	
1,1,1-Trichloroethane	ug/kg	52.5	53.3	101	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	52.5	52.6	100	72-141	
1,1,2-Trichloroethane	ug/kg	52.5	53.8	102	78-138	
1,1-Dichloroethane	ug/kg	52.5	52.7	100	69-134	
1,1-Dichloroethene	ug/kg	52.5	58.0	110	67-138	
1,1-Dichloropropene	ug/kg	52.5	58.2	111	69-139	
1,2,3-Trichlorobenzene	ug/kg	52.5	55.5	106	70-146	
1,2,3-Trichloropropane	ug/kg	52.5	49.8	95	69-144	
1,2,4-Trichlorobenzene	ug/kg	52.5	53.7	102	68-148	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1634345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	52.5	55.2	105	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	52.5	58.5	111	65-140	
1,2-Dibromoethane (EDB)	ug/kg	52.5	54.5	104	77-135	
1,2-Dichlorobenzene	ug/kg	52.5	55.9	106	77-141	
1,2-Dichloroethane	ug/kg	52.5	54.5	104	65-137	
1,2-Dichloropropane	ug/kg	52.5	54.1	103	72-136	
1,3,5-Trimethylbenzene	ug/kg	52.5	54.5	104	76-133	
1,3-Dichlorobenzene	ug/kg	52.5	56.6	108	74-138	
1,3-Dichloropropane	ug/kg	52.5	53.0	101	71-139	
1,4-Dichlorobenzene	ug/kg	52.5	55.6	106	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1050	1280	122	54-154	
2,2-Dichloropropane	ug/kg	52.5	53.0	101	68-137	
2-Butanone (MEK)	ug/kg	105	108	103	58-147	
2-Chlorotoluene	ug/kg	52.5	55.5	106	73-139	
2-Hexanone	ug/kg	105	110	105	62-145	
4-Chlorotoluene	ug/kg	52.5	54.9	105	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	105	120	114	64-149	
Acetone	ug/kg	105	101J	96	53-153	
Benzene	ug/kg	52.5	56.4	107	73-135	
Bromobenzene	ug/kg	52.5	53.8	102	75-133	
Bromochloromethane	ug/kg	52.5	59.7	114	73-134	
Bromodichloromethane	ug/kg	52.5	53.8	102	71-135	
Bromoform	ug/kg	52.5	51.0	97	66-141	
Bromomethane	ug/kg	52.5	62.3	119	53-160	
Carbon tetrachloride	ug/kg	52.5	55.0	105	60-145	
Chlorobenzene	ug/kg	52.5	52.2	99	78-130	
Chloroethane	ug/kg	52.5	59.7	114	64-149	
Chloroform	ug/kg	52.5	55.0	105	70-134	
Chloromethane	ug/kg	52.5	56.1	107	52-150	
cis-1,2-Dichloroethene	ug/kg	52.5	56.3	107	70-133	
cis-1,3-Dichloropropene	ug/kg	52.5	53.6	102	68-134	
Dibromochloromethane	ug/kg	52.5	53.6	102	71-138	
Dibromomethane	ug/kg	52.5	57.3	109	74-130	
Dichlorodifluoromethane	ug/kg	52.5	49.7	95	40-160	
Diisopropyl ether	ug/kg	52.5	56.9	108	69-141	
Ethylbenzene	ug/kg	52.5	51.5	98	75-133	
Hexachloro-1,3-butadiene	ug/kg	52.5	53.9	103	68-143	
Isopropylbenzene (Cumene)	ug/kg	52.5	55.4	106	76-143	
m&p-Xylene	ug/kg	105	103	98	75-136	
Methyl-tert-butyl ether	ug/kg	52.5	57.8	110	68-144	
Methylene Chloride	ug/kg	52.5	56.7	108	45-154	
n-Butylbenzene	ug/kg	52.5	56.6	108	72-137	
n-Propylbenzene	ug/kg	52.5	54.4	104	76-136	
Naphthalene	ug/kg	52.5	59.3	113	68-151	
o-Xylene	ug/kg	52.5	51.5	98	76-141	
p-Isopropyltoluene	ug/kg	52.5	54.8	104	76-140	
sec-Butylbenzene	ug/kg	52.5	57.1	109	79-139	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

LABORATORY CONTROL SAMPLE: 1634345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	52.5	52.7	100	79-137	
tert-Butylbenzene	ug/kg	52.5	50.0	95	74-143	
Tetrachloroethene	ug/kg	52.5	43.9	84	71-138	
Toluene	ug/kg	52.5	54.0	103	74-131	
trans-1,2-Dichloroethene	ug/kg	52.5	58.7	112	67-135	
trans-1,3-Dichloropropene	ug/kg	52.5	52.8	100	65-146	
Trichloroethene	ug/kg	52.5	54.3	103	67-135	
Trichlorofluoromethane	ug/kg	52.5	55.6	106	59-144	
Vinyl acetate	ug/kg	105	111	106	40-160	
Vinyl chloride	ug/kg	52.5	61.7	117	56-141	
Xylene (Total)	ug/kg	158	155	98	76-137	
1,2-Dichloroethane-d4 (S)	%			103	70-132	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1635100

Parameter	Units	92279398001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	21.8	21.9	101	70-130	
1,1,1-Trichloroethane	ug/kg	ND	21.8	21.6	99	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	21.8	33.3	153	70-130	M1
1,1,2-Trichloroethane	ug/kg	ND	21.8	27.6	126	70-130	
1,1-Dichloroethane	ug/kg	ND	21.8	22.9	105	70-130	
1,1-Dichloroethene	ug/kg	ND	21.8	23.9	110	49-180	
1,1-Dichloropropene	ug/kg	ND	21.8	24.6	113	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	21.8	22.9	105	70-130	
1,2,3-Trichloropropane	ug/kg	ND	21.8	32.5	149	70-130	M1
1,2,4-Trichlorobenzene	ug/kg	ND	21.8	20.5	94	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	21.8	22.8	103	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	21.8	33.3	153	70-130	M1
1,2-Dibromoethane (EDB)	ug/kg	ND	21.8	27.9	128	70-130	
1,2-Dichlorobenzene	ug/kg	ND	21.8	24.1	110	70-130	
1,2-Dichloroethane	ug/kg	ND	21.8	28.2	129	70-130	
1,2-Dichloropropane	ug/kg	ND	21.8	23.2	106	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	21.8	21.6	99	70-130	
1,3-Dichlorobenzene	ug/kg	ND	21.8	22.2	102	70-130	
1,3-Dichloropropane	ug/kg	ND	21.8	27.5	126	70-130	
1,4-Dichlorobenzene	ug/kg	ND	21.8	23.6	108	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	437	709	162	70-130	M1
2,2-Dichloropropane	ug/kg	ND	21.8	21.2	97	70-130	
2-Butanone (MEK)	ug/kg	ND	43.7	68.9J	158	70-130	M1
2-Chlorotoluene	ug/kg	ND	21.8	22.0	101	70-130	
2-Hexanone	ug/kg	ND	43.7	85.1	195	70-130	M1
4-Chlorotoluene	ug/kg	ND	21.8	21.5	99	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	43.7	78.2	179	70-130	M1

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

MATRIX SPIKE SAMPLE: 1635100

Parameter	Units	92279398001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	43.7	77.4J	177	70-130	M1
Benzene	ug/kg	ND	21.8	23.5	107	50-166	
Bromobenzene	ug/kg	ND	21.8	22.7	104	70-130	
Bromochloromethane	ug/kg	ND	21.8	27.6	127	70-130	
Bromodichloromethane	ug/kg	ND	21.8	24.2	111	70-130	
Bromoform	ug/kg	ND	21.8	25.5	117	70-130	
Bromomethane	ug/kg	ND	21.8	24.6	113	70-130	
Carbon tetrachloride	ug/kg	ND	21.8	20.8	95	70-130	
Chlorobenzene	ug/kg	ND	21.8	22.9	105	43-169	
Chloroethane	ug/kg	ND	21.8	24.4	112	70-130	
Chloroform	ug/kg	ND	21.8	24.6	113	70-130	
Chloromethane	ug/kg	ND	21.8	22.9	105	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	21.8	24.5	112	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	21.8	24.0	110	70-130	
Dibromochloromethane	ug/kg	ND	21.8	24.2	111	70-130	
Dibromomethane	ug/kg	ND	21.8	26.3	120	70-130	
Dichlorodifluoromethane	ug/kg	ND	21.8	19.2	88	70-130	
Diisopropyl ether	ug/kg	ND	21.8	27.5	126	70-130	
Ethylbenzene	ug/kg	ND	21.8	21.7	99	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	21.8	17.4	80	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	21.8	23.3	107	70-130	
m&p-Xylene	ug/kg	ND	43.7	43.9	100	70-130	
Methyl-tert-butyl ether	ug/kg	ND	21.8	30.9	140	70-130	M1
Methylene Chloride	ug/kg	ND	21.8	33.1	152	70-130	M1
n-Butylbenzene	ug/kg	ND	21.8	21.3	98	70-130	
n-Propylbenzene	ug/kg	ND	21.8	21.0	96	70-130	
Naphthalene	ug/kg	ND	21.8	32.3	148	70-130	M1
o-Xylene	ug/kg	ND	21.8	22.5	102	70-130	
p-Isopropyltoluene	ug/kg	ND	21.8	20.8	95	70-130	
sec-Butylbenzene	ug/kg	ND	21.8	22.2	102	70-130	
Styrene	ug/kg	ND	21.8	22.9	105	70-130	
tert-Butylbenzene	ug/kg	ND	21.8	19.2	88	70-130	
Tetrachloroethene	ug/kg	ND	21.8	17.4	80	70-130	
Toluene	ug/kg	ND	21.8	23.0	103	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	21.8	24.7	113	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	21.8	25.3	116	70-130	
Trichloroethene	ug/kg	ND	21.8	21.2	97	49-167	
Trichlorofluoromethane	ug/kg	ND	21.8	19.8	91	70-130	
Vinyl acetate	ug/kg	ND	43.7	75.9	174	70-130	M1
Vinyl chloride	ug/kg	ND	21.8	27.6	126	70-130	
1,2-Dichloroethane-d4 (S)	%				123	70-132	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				99	70-130	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1635099

Parameter	Units	92279774001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	32.3J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

SAMPLE DUPLICATE: 1635099

Parameter	Units	92279774001 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	24.0		30	C9
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	100	112	25		
4-Bromofluorobenzene (S)	%	96	93	11		
Toluene-d8 (S)	%	99	99	14		

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: PMST/8658 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92279773003, 92279773004, 92279773005, 92279773006, 92279773007

SAMPLE DUPLICATE: 1629174

Parameter	Units	92279622001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	30.1	31.3	4	25	

SAMPLE DUPLICATE: 1629175

Parameter	Units	92279704002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	34.3	32.1	7	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: PMST/8659 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92279773008, 92279773009, 92279773011, 92279773012, 92279773013, 92279773014, 92279773015, 92279773016, 92279773017, 92279773019, 92279773020, 92279773021, 92279773022, 92279773023, 92279773024, 92279773025, 92279773028, 92279773029, 92279773030, 92279773031

SAMPLE DUPLICATE: 1629243

Parameter	Units	92279773008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.3	9.5	3	25	

SAMPLE DUPLICATE: 1629244

Parameter	Units	92279773031 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.6	10.1	5	25	

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QUALITY CONTROL DATA

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

QC Batch: PMST/8660 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92279773026, 92279773032, 92279773033, 92279773035, 92279773036, 92279773037, 92279773038, 92279773039, 92279773040, 92279773041, 92279773042, 92279773043, 92279773044, 92279773045, 92279773046, 92279773047

SAMPLE DUPLICATE: 1629807

Parameter	Units	92278605002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.4	11.1	2	25	

SAMPLE DUPLICATE: 1629808

Parameter	Units	92279869002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	26.4	26.5	0	25	

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QUALIFIERS

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
B	Analyte was detected in the associated method blank.
C0	Result confirmed by second analysis.
C9	Common Laboratory Contaminant.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
IO	The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S1	Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92279773001	**TB-01**	EPA 8260B Mod.	MSV/34766		
92279773003	**DS-28A (0-2)**	EPA 8260B Mod.	MSV/34766		
92279773004	**DS-28A (3-5)**	EPA 8260B Mod.	MSV/34766		
92279773005	**DS-28A (8-10)**	EPA 8260B Mod.	MSV/34766		
92279773006	**DS-19A (0-2)**	EPA 8260B Mod.	MSV/34766		
92279773007	**DS-19A (3-5)**	EPA 8260B Mod.	MSV/34766		
92279773008	**DS-19A (8-10)**	EPA 8260B Mod.	MSV/34766		
92279773009	**DS-28A (13-15)**	EPA 8260B Mod.	MSV/34766		
92279773010	**TB-02**	EPA 8260B Mod.	MSV/34766		
92279773011	**DS-28A (28-30)**	EPA 8260B Mod.	MSV/34766		
92279773012	**DS-28A (23-25)**	EPA 8260B Mod.	MSV/34766		
92279773013	**DS-19A (23-25)**	EPA 8260B Mod.	MSV/34766		
92279773014	**DS-19A (28-30)**	EPA 8260B Mod.	MSV/34766		
92279773015	**DS-19A (13-15)**	EPA 8260B Mod.	MSV/34766		
92279773016	**DS-28A (18-20)**	EPA 8260B Mod.	MSV/34766		
92279773017	**DS-19A (18-20)**	EPA 8260B Mod.	MSV/34766		
92279773018	**TB-03**	EPA 8260B Mod.	MSV/34775		
92279773019	**DS-28-A (30-32)**	EPA 8260B Mod.	MSV/34775		
92279773020	**DS-20-A (8-10)**	EPA 8260B Mod.	MSV/34775		
92279773021	**DS-20-A (18-20)**	EPA 8260B Mod.	MSV/34775		
92279773022	**DS-20-A (0-2)**	EPA 8260B Mod.	MSV/34775		
92279773023	**DS-20-A (13-15)**	EPA 8260B Mod.	MSV/34775		
92279773024	**DS-20-A (3-5)**	EPA 8260B Mod.	MSV/34775		
92279773025	**DS-20A (28-30)**	EPA 8260B Mod.	MSV/34775		
92279773026	**DS-20A (23-25)**	EPA 8260B Mod.	MSV/34775		
92279773027	**TB-04**	EPA 8260B Mod.	MSV/34775		
92279773028	**DS-25A (23-25)**	EPA 8260B Mod.	MSV/34775		
92279773029	**DS-25A (18-20)**	EPA 8260B Mod.	MSV/34775		
92279773030	**DS-25A (13-15)**	EPA 8260B Mod.	MSV/34775		
92279773031	**DS-25A (28-30)**	EPA 8260B Mod.	MSV/34775		
92279773032	**DS-25A (8-10)**	EPA 8260B Mod.	MSV/34775		
92279773033	**DS-25A (0-2)**	EPA 8260B Mod.	MSV/34775		
92279773034	**TB-05**	EPA 8260B Mod.	MSV/34775		
92279773035	**DS-25A (3-5)**	EPA 8260B Mod.	MSV/34775		
92279773002	**FB-01**	EPA 8260	MSV/34795		
92279773001	**TB-01**	EPA 8260	MSV/34759		
92279773003	**DS-28A (0-2)**	EPA 8260	MSV/34735		
92279773004	**DS-28A (3-5)**	EPA 8260	MSV/34735		
92279773005	**DS-28A (8-10)**	EPA 8260	MSV/34759		
92279773006	**DS-19A (0-2)**	EPA 8260	MSV/34735		
92279773007	**DS-19A (3-5)**	EPA 8260	MSV/34735		
92279773008	**DS-19A (8-10)**	EPA 8260	MSV/34735		
92279773009	**DS-28A (13-15)**	EPA 8260	MSV/34759		
92279773010	**TB-02**	EPA 8260	MSV/34735		

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92279773011	**DS-28A (28-30)**	EPA 8260	MSV/34797		
92279773012	**DS-28A (23-25)**	EPA 8260	MSV/34797		
92279773013	**DS-19A (23-25)**	EPA 8260	MSV/34797		
92279773014	**DS-19A (28-30)**	EPA 8260	MSV/34797		
92279773015	**DS-19A (13-15)**	EPA 8260	MSV/34797		
92279773016	**DS-28A (18-20)**	EPA 8260	MSV/34797		
92279773017	**DS-19A (18-20)**	EPA 8260	MSV/34797		
92279773018	**TB-03**	EPA 8260	MSV/34797		
92279773019	**DS-28-A (30-32)**	EPA 8260	MSV/34817		
92279773020	**DS-20-A (8-10)**	EPA 8260	MSV/34797		
92279773021	**DS-20-A (18-20)**	EPA 8260	MSV/34797		
92279773022	**DS-20-A (0-2)**	EPA 8260	MSV/34797		
92279773023	**DS-20-A (13-15)**	EPA 8260	MSV/34797		
92279773024	**DS-20-A (3-5)**	EPA 8260	MSV/34797		
92279773025	**DS-20A (28-30)**	EPA 8260	MSV/34797		
92279773026	**DS-20A (23-25)**	EPA 8260	MSV/34817		
92279773027	**TB-04**	EPA 8260	MSV/34817		
92279773028	**DS-25A (23-25)**	EPA 8260	MSV/34817		
92279773029	**DS-25A (18-20)**	EPA 8260	MSV/34797		
92279773030	**DS-25A (13-15)**	EPA 8260	MSV/34798		
92279773031	**DS-25A (28-30)**	EPA 8260	MSV/34798		
92279773032	**DS-25A (8-10)**	EPA 8260	MSV/34817		
92279773033	**DS-25A (0-2)**	EPA 8260	MSV/34798		
92279773034	**TB-05**	EPA 8260	MSV/34798		
92279773035	**DS-25A (3-5)**	EPA 8260	MSV/34798		
92279773036	**DS-51 (0-2)**	EPA 8260	MSV/34798		
92279773037	**DS-51 (3-5)**	EPA 8260	MSV/34798		
92279773038	**DS-51 (13-15)**	EPA 8260	MSV/34798		
92279773039	**DS-51 (8-10)**	EPA 8260	MSV/34798		
92279773040	**DS-52 (13-15)**	EPA 8260	MSV/34798		
92279773041	**DS-52 (0-2)**	EPA 8260	MSV/34817		
92279773042	**DS-52 (8-10)**	EPA 8260	MSV/34817		
92279773043	**DS-52 (3-5)**	EPA 8260	MSV/34817		
92279773044	**DS-53 (13-15)**	EPA 8260	MSV/34817		
92279773045	**DS-53 (8-10)**	EPA 8260	MSV/34817		
92279773046	**DS-53 (0-2)**	EPA 8260	MSV/34834		
92279773047	**DS-53 (3-5)**	EPA 8260	MSV/34817		
92279773003	**DS-28A (0-2)**	ASTM D2974-87	PMST/8658		
92279773004	**DS-28A (3-5)**	ASTM D2974-87	PMST/8658		
92279773005	**DS-28A (8-10)**	ASTM D2974-87	PMST/8658		
92279773006	**DS-19A (0-2)**	ASTM D2974-87	PMST/8658		
92279773007	**DS-19A (3-5)**	ASTM D2974-87	PMST/8658		
92279773008	**DS-19A (8-10)**	ASTM D2974-87	PMST/8659		

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251121001
Pace Project No.: 92279773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92279773009	**DS-28A (13-15)**	ASTM D2974-87	PMST/8659		
92279773011	**DS-28A (28-30)**	ASTM D2974-87	PMST/8659		
92279773012	**DS-28A (23-25)**	ASTM D2974-87	PMST/8659		
92279773013	**DS-19A (23-25)**	ASTM D2974-87	PMST/8659		
92279773014	**DS-19A (28-30)**	ASTM D2974-87	PMST/8659		
92279773015	**DS-19A (13-15)**	ASTM D2974-87	PMST/8659		
92279773016	**DS-28A (18-20)**	ASTM D2974-87	PMST/8659		
92279773017	**DS-19A (18-20)**	ASTM D2974-87	PMST/8659		
92279773019	**DS-28-A (30-32)**	ASTM D2974-87	PMST/8659		
92279773020	**DS-20-A (8-10)**	ASTM D2974-87	PMST/8659		
92279773021	**DS-20-A (18-20)**	ASTM D2974-87	PMST/8659		
92279773022	**DS-20-A (0-2)**	ASTM D2974-87	PMST/8659		
92279773023	**DS-20-A (13-15)**	ASTM D2974-87	PMST/8659		
92279773024	**DS-20-A (3-5)**	ASTM D2974-87	PMST/8659		
92279773025	**DS-20A (28-30)**	ASTM D2974-87	PMST/8659		
92279773026	**DS-20A (23-25)**	ASTM D2974-87	PMST/8660		
92279773028	**DS-25A (23-25)**	ASTM D2974-87	PMST/8659		
92279773029	**DS-25A (18-20)**	ASTM D2974-87	PMST/8659		
92279773030	**DS-25A (13-15)**	ASTM D2974-87	PMST/8659		
92279773031	**DS-25A (28-30)**	ASTM D2974-87	PMST/8659		
92279773032	**DS-25A (8-10)**	ASTM D2974-87	PMST/8660		
92279773033	**DS-25A (0-2)**	ASTM D2974-87	PMST/8660		
92279773035	**DS-25A (3-5)**	ASTM D2974-87	PMST/8660		
92279773036	**DS-51 (0-2)**	ASTM D2974-87	PMST/8660		
92279773037	**DS-51 (3-5)**	ASTM D2974-87	PMST/8660		
92279773038	**DS-51 (13-15)**	ASTM D2974-87	PMST/8660		
92279773039	**DS-51 (8-10)**	ASTM D2974-87	PMST/8660		
92279773040	**DS-52 (13-15)**	ASTM D2974-87	PMST/8660		
92279773041	**DS-52 (0-2)**	ASTM D2974-87	PMST/8660		
92279773042	**DS-52 (8-10)**	ASTM D2974-87	PMST/8660		
92279773043	**DS-52 (3-5)**	ASTM D2974-87	PMST/8660		
92279773044	**DS-53 (13-15)**	ASTM D2974-87	PMST/8660		
92279773045	**DS-53 (8-10)**	ASTM D2974-87	PMST/8660		
92279773046	**DS-53 (0-2)**	ASTM D2974-87	PMST/8660		
92279773047	**DS-53 (3-5)**	ASTM D2974-87	PMST/8660		

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Pace Analytical®	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: 26OCT2015 Page 1 of 2
	Document No.: **F-CHR-CS-003-rev.17**	Issuing Authority: Pace Huntersville Quality Office

Sample Condition Upon Receipt

Client Name: AMEC

Project #: WO# : 92279773

92279773

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:_____

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other:_____

Thermometer Used: ☒ T1505 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☒ Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.8 **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** 0.0 °C **Date and Initials of Person Examining Contents:** _____

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☒ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☐ Yes	☐ No	☑ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: SL / WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☑ Yes	☐ No	☐ N/A	
Samples checked for dechlorization	☐ Yes	☐ No	☑ N/A	14.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	15.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	16.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):_____				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager SCURF Review: _____ **Date:** 12/15/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 4

2042052

Section A Required Client Information:

Company: AMEC
Address: 37 Villa Rd.
Greenville SC 29615
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To: Paul Johnstone
Copy To: Tim Renn
Purchase Order No.:
Project Name: RBTC Boone
Project Number: 625112100 1

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Y/N — N, N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test: 8260 (5035)	8260 1-4 Dioxane	8260 VOCs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92279773
1	TB-01	SL	G			12-14	830		10								X	X	X			001
2	FB-01					12-14	1000		3				X							X		002
3	DS-28A (0-2)					12-14	1030		10								X	X	X			003
4	DS-28A (3-5)					12-14	1040		10								X	X	X			004
5	DS-28A (8-10)					12-14	1050		10								X	X	X			005
6	DS-19A (0-2)					12-14	1100		10								X	X	X			006
7	DS-19A (3-5)					12-14	1115		10								X	X	X			007
8	DS-19A (8-10)					12-14	1125		10								X	X	X			008
9	DS-28A (13-15)					12-14	1130		10								X	X	X			009
10	TB-02					12-14	1140		10								X	X	X			010
11	DS-28A (28-30)					12-14	1135		10								X	X	X			011
12	DS-28A (23-25)					12-14	1145		10								X	X	X			012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Zach Downes	12-14-15	1830	Fed Ex						
				Tyrice Hood pace Hol	12/15/15	1000	5.8	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Downes

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-14-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 4

2042045

Section A Required Client Information:

Company:	AMEC
Address:	
Email To:	
Phone: / Fax:	
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	RTC BOONE
Project Number:	625112100 1

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N — Analysis Test: 8260 (5035) N; 8260 1-4 Dioxane N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date '15	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	8260 (5035)	8260 1-4 Dioxane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92279773
1	DS-19A (23-25)	SL	G			12-14	1150		10								X	X	X		013
2	DS-19A (28-30)					12-14	1155		10								X	X	X		014
3	DS-19A (13-15)					12-14	1200		10								X	X	X		015
4	DS-28A (18-20)					12-14	1210		10								X	X	X		016
5	DS-19A (18-20)					12-14	1210		10								X	X	X		017
6	TB-03					12-14	1220		10								X	X	X		018
7	DS-28-A (30-32)					12-14	1230		10								X	X	X		019
8	DS-20A (8-10)					12-14	1235		10								X	X	X		020
9	DS-20A (18-20)					12-14	1245		10								X	X	X		021
10	DS-20A (0-2)					12-14	1245		10								X	X	X		022
11	DS-20A (13-15)					12-14	1255		10								X	X	X		023
12	DS-20A (3-5)					12-14	1255		10								X	X	X		024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature]	12-14-15	1630	Fed Ex						
				[signature] Pace HUI	12/15/15	1000	5.8	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Barnes

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-14-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 4

2042046

Section A Required Client Information:

Company:	AMEC
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	RBTC BOONE
Project Number:	6251121001

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Y/N: N, N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date (15)	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test: 8260 (5035)	Analysis Test: 8260 (1-4 Dioxane)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. (92279773)
1	DS-20A (28-30)	SL	G			12-14	1305		10								X	X	X		025
2	DS-20A (23-25)					12-14	1305		10								X	X	X		026
3	TB-04					12-14	1315		10								X	X	X		027
4	DS-25A (23-25)					12-14	1315		10								X	X	X		028
5	DS-25A (18-20)					12-14	1320		10								X	X	X		029
6	DS-25A (13-15)					12-14	1330		10								X	X	X		030
7	DS-25A (28-30)					12-14	1330		10								X	X	X		031
8	DS-25A (8-10)					12-14	1340		10								X	X	X		032
9	DS-25A (0-2)					12-14	1340		10								X	X	X		033
10	TB-05					12-14	1350		10								X	X	X		034
11	DS-25A (3-5)					12-14	1350		10								X	X	X		035
12	DS-51 (0-2)					12-14	1435		6								X	X			036

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Zach Downes	12-14-15	1630	Fed Ex						
				Expect Here pre Hvl	12/15/15	1000	5.8	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Downes

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 12-14-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 4 of 4

2042051

Section A Required Client Information:

Company:	AMEC
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	STD

Section B Required Project Information:

Report To:	
Copy To:	
Purchase Order No.:	
Project Name:	RBTC BOONE
Project Number:	6251121001

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Analysis Test: 8260 (5035)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Analysis Test 8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92279773
1	DS-51 (3-5)	SL	G			12-14	1440		6								X	X		037
2	DS-51 (13-15)					12-14	1445		6								X	X		038
3	DS-51 (8-10)					12-14	1445		6								X	X		039
4	DS-52 (13-15)					12-14	1450		6								X	X		040
5	DS-52 (0-2)					12-14	1450		6								X	X		041
6	DS-52 (8-10)					12-14	1450		6								X	X		042
7	DS-52 (3-5)					12-14	1500		6								X	X		043
8	DS-53 (13-15)					12-14	1505		6								X	X		044
9	DS-53 (8-10)					12-14	5010		6								X	X		045
10	DS-53 (0-2)					12-14	1525		6								X	X		046
11	DS-53 (3-5)					12-14	1540		6								X	X		047
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Zach Downer	12-14-15	1630	Fed Ex						
				Alyce Hoke pace AM	12/15/15	1000	5.8	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Downer

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-14-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 05, 2016

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Client requested that sample ID SB-49A (5.0) be changed to the correct sample ID of SB-48A (5.0).

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dale Ingram for
Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #:E-10177
Kentucky UST Certification #: 0042
Kentucky WW Certification #:98019
Louisiana Certification #: 04076
Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2014-148
Texas Certification #: T104704355-15-9
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-10-00128

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92280019001	**SB-48A (0.5)**	Solid	12/14/15 15:50	12/16/15 11:30
92280019002	**SB-48A (5.0)**	Solid	12/14/15 16:40	12/16/15 11:30
92280019003	**SB-48B (0.5)**	Solid	12/14/15 16:20	12/16/15 11:30
92280019004	**SB-48C (0.5)**	Solid	12/14/15 16:30	12/16/15 11:30
92280019005	**SB-48D (0.5)**	Solid	12/14/15 16:35	12/16/15 11:30
92280019006	**FB-02**	Water	12/15/15 07:30	12/16/15 11:30
92280019007	**TB-06**	Solid	12/15/15 07:30	12/16/15 11:30
92280019008	**DS-36B (13-15)**	Solid	12/15/15 08:25	12/16/15 11:30
92280019009	**DS-36B (18-20)**	Solid	12/15/15 08:30	12/16/15 11:30
92280019010	**DS-36B (23-25)**	Solid	12/15/15 08:35	12/16/15 11:30
92280019011	**DS-39A (0-2)**	Solid	12/15/15 08:50	12/16/15 11:30
92280019012	**DS-39A (3-5)**	Solid	12/15/15 08:50	12/16/15 11:30
92280019013	**DS-39A (8-10)**	Solid	12/15/15 09:00	12/16/15 11:30
92280019014	**DS-39A (13-15)**	Solid	12/15/15 09:00	12/16/15 11:30
92280019015	**DS-39A (23-25)**	Solid	12/15/15 09:05	12/16/15 11:30
92280019016	**DS-39A (18-20)**	Solid	12/15/15 09:10	12/16/15 11:30
92280019017	**TB-07**	Solid	12/15/15 09:15	12/16/15 11:30
92280019018	**DS-39A(28-30)**	Solid	12/15/15 09:15	12/16/15 11:30
92280019019	**DS-41A(3-5)**	Solid	12/15/15 09:20	12/16/15 11:30
92280019020	**DS-41A(0-2)**	Solid	12/15/15 09:20	12/16/15 11:30
92280019021	**DS-44A(0-2)**	Solid	12/15/15 09:25	12/16/15 11:30
92280019022	**DS-44A(8-10)**	Solid	12/15/15 09:25	12/16/15 11:30
92280019023	**DS-44A(3-5)**	Solid	12/15/15 09:30	12/16/15 11:30
92280019024	**SB-20C (5.0)**	Solid	12/15/15 09:35	12/16/15 11:30
92280019025	**SB-20B (5.0)**	Solid	12/15/15 09:40	12/16/15 11:30
92280019026	**SB-46A (15)**	Solid	12/14/15 16:45	12/16/15 11:30
92280019027	**SB-46A (20)**	Solid	12/14/15 16:35	12/16/15 11:30
92280019028	**SB-20A (0.5)**	Solid	12/15/15 09:50	12/16/15 11:30
92280019029	**SB-20A (5.0)**	Solid	12/15/15 09:50	12/16/15 11:30
92280019030	**SB-20A (10.0)**	Solid	12/15/15 09:55	12/16/15 11:30
92280019031	**SB-17A (5.0)**	Solid	12/15/15 10:05	12/16/15 11:30
92280019032	**SB-17A (10.0)**	Solid	12/15/15 10:05	12/16/15 11:30
92280019033	**SB-17A (15.0)**	Solid	12/15/15 10:10	12/16/15 11:30

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SAMPLE ANALYTE COUNT

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92280019001	**SB-48A (0.5)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019002	**SB-48A (5.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019003	**SB-48B (0.5)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019004	**SB-48C (0.5)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019005	**SB-48D (0.5)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019006	**FB-02**	EPA 8260	NB	63	PASI-C
92280019007	**TB-06**	EPA 8260	DLK	71	PASI-C
92280019008	**DS-36B (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019009	**DS-36B (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019010	**DS-36B (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019011	**DS-39A (0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019012	**DS-39A (3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019013	**DS-39A (8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019014	**DS-39A (13-15)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019015	**DS-39A (23-25)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019016	**DS-39A (18-20)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019017	**TB-07**	EPA 8260	DLK	71	PASI-C
92280019018	**DS-39A(28-30)**	EPA 8260	DLK	71	PASI-C

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SAMPLE ANALYTE COUNT

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	KDF	1	PASI-C
92280019019	**DS-41A(3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019020	**DS-41A(0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019021	**DS-44A(0-2)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019022	**DS-44A(8-10)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019023	**DS-44A(3-5)**	EPA 8260	DLK	71	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92280019024	**SB-20C (5.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019025	**SB-20B (5.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019026	**SB-46A (15)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019027	**SB-46A (20)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019028	**SB-20A (0.5)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019029	**SB-20A (5.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019030	**SB-20A (10.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019031	**SB-17A (5.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019032	**SB-17A (10.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9014 Free Cyanide	CSA	1	PASI-I
92280019033	**SB-17A (15.0)**	ASTM D2974-87	CLW	1	PASI-C
		SM 4500-CN-E	AES2	1	PASI-A
		EPA 9014 Free Cyanide	CSA	1	PASI-I

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260 MSV Low Level
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/34795

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92279987001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1633891)
  - Bromomethane
  - Carbon tetrachloride
  - Hexachloro-1,3-butadiene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

General Information:
17 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: MSV/34837

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DS-36B (23-25) (Lab ID: 92280019010)
  - 1,2-Dichloroethane-d4 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/34838

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1634663)
  - Vinyl acetate

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/34837

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280012001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1635304)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

QC Batch: MSV/34837

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280012001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Methylene Chloride
- Vinyl acetate

QC Batch: MSV/34838

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280019016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1635306)
  - Bromomethane
  - Methylene Chloride

QC Batch: MSV/34861

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280058002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1636222)
  - 1,2,3-Trichlorobenzene
  - 1,2,4-Trichlorobenzene
  - 1,4-Dioxane (p-Dioxane)
  - 2-Butanone (MEK)
  - Diisopropyl ether
  - Hexachloro-1,3-butadiene
  - Methylene Chloride
  - Naphthalene
  - Vinyl acetate

QC Batch: MSV/34868

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280546015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1635395)
  - 1,1,1,2-Tetrachloroethane
  - 1,1,1-Trichloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,1,2-Trichloroethane
  - 1,1-Dichloroethane
  - 1,1-Dichloropropene
  - 1,2,3-Trichlorobenzene
  - 1,2,3-Trichloropropane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dibromo-3-chloropropane
  - 1,2-Dibromoethane (EDB)
  - 1,2-Dichlorobenzene
  - 1,2-Dichloroethane
  - 1,2-Dichloropropane
  - 1,3,5-Trimethylbenzene

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

QC Batch: MSV/34868

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280546015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- 1,3-Dichlorobenzene
- 1,3-Dichloropropane
- 1,4-Dichlorobenzene
- 2,2-Dichloropropane
- 2-Chlorotoluene
- 4-Chlorotoluene
- Acetone
- Bromobenzene
- Bromochloromethane
- Bromodichloromethane
- Bromoform
- Carbon tetrachloride
- Chlorobenzene
- Chloroform
- Dibromochloromethane
- Dibromomethane
- Dichlorodifluoromethane
- Diisopropyl ether
- Ethylbenzene
- Hexachloro-1,3-butadiene
- Isopropylbenzene (Cumene)
- Methylene Chloride
- Naphthalene
- Styrene
- Tetrachloroethene
- Toluene
- Trichlorofluoromethane
- Vinyl acetate
- cis-1,2-Dichloroethene
- cis-1,3-Dichloropropene
- m&p-Xylene
- n-Butylbenzene
- n-Propylbenzene
- o-Xylene
- p-Isopropyltoluene
- sec-Butylbenzene
- trans-1,3-Dichloropropene

- MSD (Lab ID: 1635396)
  - 1,1,1,2-Tetrachloroethane
  - 1,1,1-Trichloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,1,2-Trichloroethane
  - 1,1-Dichloroethane

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

QC Batch: MSV/34868

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280546015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- 1,1-Dichloropropene
- 1,2,3-Trichlorobenzene
- 1,2,3-Trichloropropane
- 1,2,4-Trichlorobenzene
- 1,2,4-Trimethylbenzene
- 1,2-Dibromo-3-chloropropane
- 1,2-Dibromoethane (EDB)
- 1,2-Dichlorobenzene
- 1,2-Dichloroethane
- 1,2-Dichloropropane
- 1,3,5-Trimethylbenzene
- 1,3-Dichlorobenzene
- 1,3-Dichloropropane
- 1,4-Dichlorobenzene
- 2,2-Dichloropropane
- 2-Chlorotoluene
- 4-Chlorotoluene
- Acetone
- Bromobenzene
- Bromochloromethane
- Bromodichloromethane
- Bromoform
- Carbon tetrachloride
- Chlorobenzene
- Chloroethane
- Chloroform
- Dibromochloromethane
- Dibromomethane
- Dichlorodifluoromethane
- Diisopropyl ether
- Ethylbenzene
- Hexachloro-1,3-butadiene
- Isopropylbenzene (Cumene)
- Methylene Chloride
- Naphthalene
- Styrene
- Tetrachloroethene
- Toluene
- Trichlorofluoromethane
- Vinyl acetate
- Vinyl chloride
- cis-1,2-Dichloroethene
- cis-1,3-Dichloropropene

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

QC Batch: MSV/34868

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280546015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- m&p-Xylene
- n-Butylbenzene
- n-Propylbenzene
- o-Xylene
- p-Isopropyltoluene
- sec-Butylbenzene
- tert-Butylbenzene
- trans-1,2-Dichloroethene
- trans-1,3-Dichloropropene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1635396)
  - cis-1,2-Dichloroethene

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/34837

C9: Common Laboratory Contaminant.

- DS-39A (8-10) (Lab ID: 92280019013)
  - Methylene Chloride

QC Batch: MSV/34838

C9: Common Laboratory Contaminant.

- DS-39A (13-15) (Lab ID: 92280019014)
  - Methylene Chloride
- DS-39A(28-30) (Lab ID: 92280019018)
  - Methylene Chloride

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DS-44A(0-2) (Lab ID: 92280019021)
  - Toluene-d8 (S)

QC Batch: MSV/34861

1g: The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.

- DUP (Lab ID: 1636221)
  - Toluene-d8 (S)

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 8260**
Description: 8260/5035A Volatile Organics
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

Analyte Comments:

QC Batch: MSV/34868

C9: Common Laboratory Contaminant.

- DS-44A(8-10) (Lab ID: 92280019022)
  - Methylene Chloride

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Total
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

General Information:
15 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/25850

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92280019001,92280019029

R1: RPD value was outside control limits.

- MSD (Lab ID: 1633136)
  - Cyanide

Additional Comments:

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PROJECT NARRATIVE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Method: **EPA 9014 Free Cyanide**
Description: 9014 Cyanide, Free
Client: Amec Foster Wheeler, Greenville, SC
Date: January 05, 2016

General Information:
15 samples were analyzed for EPA 9014 Free Cyanide. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9013A Free Cyanide EXT with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-48A (0.5) **Lab ID: 92280019001** Collected: 12/14/15 15:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.4**	%	0.10	0.10	1		12/23/15 15:12		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.38**	mg/kg	0.32	0.16	1		12/19/15 13:36	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	ND	mg/kg	0.54	0.27	5	12/21/15 14:30	12/22/15 18:40		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-48A (5.0) **Lab ID: 92280019002** Collected: 12/14/15 16:40 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.5**	%	0.10	0.10	1		12/23/15 15:12		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**7.7**	mg/kg	0.45	0.22	1		12/19/15 13:39	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**1.4**	mg/kg	0.60	0.30	5	12/21/15 14:30	12/22/15 18:43		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-48B (0.5) **Lab ID: 92280019003** Collected: 12/14/15 16:20 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.9**	%	0.10	0.10	1		12/23/15 15:13		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.38**	mg/kg	0.28	0.14	1		12/19/15 13:40	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**0.56J**	mg/kg	0.57	0.29	5	12/21/15 14:30	12/22/15 18:45		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-48C (0.5) **Lab ID: 92280019004** Collected: 12/14/15 16:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.8**	%	0.10	0.10	1		12/23/15 15:13		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.32**	mg/kg	0.31	0.15	1		12/19/15 13:41	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**0.33J**	mg/kg	0.57	0.28	5	12/21/15 14:30	12/22/15 18:45		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-48D (0.5) **Lab ID: 92280019005** Collected: 12/14/15 16:35 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.3**	%	0.10	0.10	1		12/23/15 15:13		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**1.0**	mg/kg	0.37	0.18	1		12/19/15 13:42	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**0.35J**	mg/kg	0.58	0.29	5	12/21/15 14:30	12/22/15 18:47		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: FB-02 **Lab ID: 92280019006** Collected: 12/15/15 07:30 Received: 12/16/15 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	10.0	1		12/19/15 14:45	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/15 14:45	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		12/19/15 14:45	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		12/19/15 14:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/15 14:45	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		12/19/15 14:45	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		12/19/15 14:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		12/19/15 14:45	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/15 14:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		12/19/15 14:45	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		12/19/15 14:45	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		12/19/15 14:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/15 14:45	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		12/19/15 14:45	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		12/19/15 14:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		12/19/15 14:45	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		12/19/15 14:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/15 14:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		12/19/15 14:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		12/19/15 14:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		12/19/15 14:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/15 14:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		12/19/15 14:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		12/19/15 14:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		12/19/15 14:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		12/19/15 14:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		12/19/15 14:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		12/19/15 14:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/15 14:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		12/19/15 14:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		12/19/15 14:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		12/19/15 14:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/15 14:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/15 14:45	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		12/19/15 14:45	108-20-3	
Ethylbenzene	**0.33J**	ug/L	1.0	0.30	1		12/19/15 14:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		12/19/15 14:45	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		12/19/15 14:45	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		12/19/15 14:45	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		12/19/15 14:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		12/19/15 14:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		12/19/15 14:45	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		12/19/15 14:45	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		12/19/15 14:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		12/19/15 14:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		12/19/15 14:45	79-34-5	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: FB-02 **Lab ID: 92280019006** Collected: 12/15/15 07:30 Received: 12/16/15 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/15 14:45	127-18-4	
Toluene	**1.3**	ug/L	1.0	0.26	1		12/19/15 14:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/15 14:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		12/19/15 14:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/15 14:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/15 14:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/15 14:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/15 14:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/15 14:45	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		12/19/15 14:45	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/15 14:45	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/15 14:45	1330-20-7	
m&p-Xylene	**1.1J**	ug/L	2.0	0.66	1		12/19/15 14:45	179601-23-1	
o-Xylene	**0.66J**	ug/L	1.0	0.23	1		12/19/15 14:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	116	%	70-130		1		12/19/15 14:45	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/19/15 14:45	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		12/19/15 14:45	2037-26-5	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: TB-06 **Lab ID: 92280019007** Collected: 12/15/15 07:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**13.7J**	ug/kg	100	10.0	1		12/22/15 03:11	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/22/15 03:11	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/22/15 03:11	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/22/15 03:11	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/22/15 03:11	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		12/22/15 03:11	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/22/15 03:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/22/15 03:11	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/22/15 03:11	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/22/15 03:11	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/22/15 03:11	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/22/15 03:11	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/22/15 03:11	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/22/15 03:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/22/15 03:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/22/15 03:11	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/22/15 03:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/22/15 03:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/22/15 03:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/22/15 03:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/22/15 03:11	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/22/15 03:11	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/22/15 03:11	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/22/15 03:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	99-87-6	
Methylene Chloride	**10.2J**	ug/kg	20.0	3.0	1		12/22/15 03:11	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: TB-06 **Lab ID: 92280019007** Collected: 12/15/15 07:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/22/15 03:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/22/15 03:11	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/22/15 03:11	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/22/15 03:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/22/15 03:11	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/22/15 03:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/22/15 03:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/22/15 03:11	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/22/15 03:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/22/15 03:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/22/15 03:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/22/15 03:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 03:11	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/22/15 03:11	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/22/15 03:11	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/22/15 03:11	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/22/15 03:11	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/22/15 03:11	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/22/15 03:11	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/22/15 03:11	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-132		1		12/22/15 03:11	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-36B (13-15) **Lab ID: 92280019008** Collected: 12/15/15 08:25 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**53.8J**	ug/kg	112	11.2	1		12/22/15 03:31	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		12/22/15 03:31	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.2	1		12/22/15 03:31	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		12/22/15 03:31	75-25-2	
Bromomethane	ND	ug/kg	11.2	2.8	1		12/22/15 03:31	74-83-9	
2-Butanone (MEK)	ND	ug/kg	112	3.3	1		12/22/15 03:31	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		12/22/15 03:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.2	1		12/22/15 03:31	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		12/22/15 03:31	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	108-90-7	
Chloroethane	ND	ug/kg	11.2	2.7	1		12/22/15 03:31	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		12/22/15 03:31	67-66-3	
Chloromethane	ND	ug/kg	11.2	2.7	1		12/22/15 03:31	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.0	1		12/22/15 03:31	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		12/22/15 03:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.2	1		12/22/15 03:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.2	4.0	1		12/22/15 03:31	75-71-8	
1,1-Dichloroethane	**2.3J**	ug/kg	5.6	1.7	1		12/22/15 03:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.5	1		12/22/15 03:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	75-35-4	
cis-1,2-Dichloroethene	**3.9J**	ug/kg	5.6	1.6	1		12/22/15 03:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/22/15 03:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/22/15 03:31	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	169	135	1		12/22/15 03:31	123-91-1	
Ethylbenzene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.2	1		12/22/15 03:31	87-68-3	
2-Hexanone	ND	ug/kg	56.2	4.4	1		12/22/15 03:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	99-87-6	
Methylene Chloride	**12.7J**	ug/kg	22.5	3.4	1		12/22/15 03:31	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-36B (13-15) **Lab ID: 92280019008** Collected: 12/15/15 08:25 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.2	4.2	1		12/22/15 03:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		12/22/15 03:31	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.3	1		12/22/15 03:31	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		12/22/15 03:31	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.4	1		12/22/15 03:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	79-34-5	
Tetrachloroethene	**1.9J**	ug/kg	5.6	1.9	1		12/22/15 03:31	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.5	1		12/22/15 03:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		12/22/15 03:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.4	1		12/22/15 03:31	79-00-5	
Trichloroethene	ND	ug/kg	5.6	2.4	1		12/22/15 03:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.5	1		12/22/15 03:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		12/22/15 03:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.2	1		12/22/15 03:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		12/22/15 03:31	108-67-8	
Vinyl acetate	ND	ug/kg	56.2	9.9	1		12/22/15 03:31	108-05-4	
Vinyl chloride	ND	ug/kg	11.2	2.0	1		12/22/15 03:31	75-01-4	
Xylene (Total)	ND	ug/kg	11.2	4.0	1		12/22/15 03:31	1330-20-7	
m&p-Xylene	ND	ug/kg	11.2	4.0	1		12/22/15 03:31	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		12/22/15 03:31	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/22/15 03:31	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/22/15 03:31	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		12/22/15 03:31	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.1**	%	0.10	0.10	1		12/18/15 11:38		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-36B (18-20) **Lab ID: 92280019009** Collected: 12/15/15 08:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	101	10.1	1		12/22/15 03:51	67-64-1	
Benzene	ND	ug/kg	5.1	1.6	1		12/22/15 03:51	71-43-2	
Bromobenzene	ND	ug/kg	5.1	2.0	1		12/22/15 03:51	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	75-27-4	
Bromoform	ND	ug/kg	5.1	2.3	1		12/22/15 03:51	75-25-2	
Bromomethane	ND	ug/kg	10.1	2.5	1		12/22/15 03:51	74-83-9	
2-Butanone (MEK)	ND	ug/kg	101	2.9	1		12/22/15 03:51	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1.6	1		12/22/15 03:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	2.0	1		12/22/15 03:51	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	2.6	1		12/22/15 03:51	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	108-90-7	
Chloroethane	ND	ug/kg	10.1	2.4	1		12/22/15 03:51	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		12/22/15 03:51	67-66-3	
Chloromethane	ND	ug/kg	10.1	2.4	1		12/22/15 03:51	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.6	1		12/22/15 03:51	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	106-93-4	
Dibromomethane	ND	ug/kg	5.1	2.5	1		12/22/15 03:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.0	1		12/22/15 03:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.1	3.6	1		12/22/15 03:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.1	1.5	1		12/22/15 03:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.2	1		12/22/15 03:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	75-35-4	
cis-1,2-Dichloroethene	**1.5J**	ug/kg	5.1	1.4	1		12/22/15 03:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/22/15 03:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/22/15 03:51	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	152	121	1		12/22/15 03:51	123-91-1	
Ethylbenzene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	2.0	1		12/22/15 03:51	87-68-3	
2-Hexanone	ND	ug/kg	50.6	3.9	1		12/22/15 03:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	99-87-6	
Methylene Chloride	**13.8J**	ug/kg	20.2	3.0	1		12/22/15 03:51	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-36B (18-20) **Lab ID: 92280019009** Collected: 12/15/15 08:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.6	3.7	1		12/22/15 03:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		12/22/15 03:51	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1.2	1		12/22/15 03:51	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	103-65-1	
Styrene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	2.1	1		12/22/15 03:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	79-34-5	
Tetrachloroethene	ND	ug/kg	5.1	1.7	1		12/22/15 03:51	127-18-4	
Toluene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.2	1		12/22/15 03:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		12/22/15 03:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.1	1		12/22/15 03:51	79-00-5	
Trichloroethene	ND	ug/kg	5.1	2.1	1		12/22/15 03:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.2	1		12/22/15 03:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1.6	1		12/22/15 03:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	2.0	1		12/22/15 03:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1.8	1		12/22/15 03:51	108-67-8	
Vinyl acetate	ND	ug/kg	50.6	8.9	1		12/22/15 03:51	108-05-4	
Vinyl chloride	ND	ug/kg	10.1	1.8	1		12/22/15 03:51	75-01-4	
Xylene (Total)	ND	ug/kg	10.1	3.6	1		12/22/15 03:51	1330-20-7	
m&p-Xylene	ND	ug/kg	10.1	3.6	1		12/22/15 03:51	179601-23-1	
o-Xylene	ND	ug/kg	5.1	1.9	1		12/22/15 03:51	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/22/15 03:51	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/22/15 03:51	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-132		1		12/22/15 03:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		12/18/15 11:38		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-36B (23-25) **Lab ID: 92280019010** Collected: 12/15/15 08:35 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	116	11.6	1		12/22/15 04:10	67-64-1	
Benzene	ND	ug/kg	5.8	1.9	1		12/22/15 04:10	71-43-2	
Bromobenzene	ND	ug/kg	5.8	2.3	1		12/22/15 04:10	108-86-1	
Bromochloromethane	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	74-97-5	
Bromodichloromethane	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	75-27-4	
Bromoform	ND	ug/kg	5.8	2.7	1		12/22/15 04:10	75-25-2	
Bromomethane	ND	ug/kg	11.6	2.9	1		12/22/15 04:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	116	3.4	1		12/22/15 04:10	78-93-3	
n-Butylbenzene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.8	1.9	1		12/22/15 04:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.8	2.3	1		12/22/15 04:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.8	3.0	1		12/22/15 04:10	56-23-5	
Chlorobenzene	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	108-90-7	
Chloroethane	ND	ug/kg	11.6	2.8	1		12/22/15 04:10	75-00-3	
Chloroform	ND	ug/kg	5.8	1.9	1		12/22/15 04:10	67-66-3	
Chloromethane	ND	ug/kg	11.6	2.8	1		12/22/15 04:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8	4.2	1		12/22/15 04:10	96-12-8	
Dibromochloromethane	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	106-93-4	
Dibromomethane	ND	ug/kg	5.8	2.9	1		12/22/15 04:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.8	2.3	1		12/22/15 04:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.6	4.2	1		12/22/15 04:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.8	1.7	1		12/22/15 04:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.8	2.6	1		12/22/15 04:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.6	1		12/22/15 04:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/22/15 04:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.7	1		12/22/15 04:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	175	140	1		12/22/15 04:10	123-91-1	
Ethylbenzene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.8	2.3	1		12/22/15 04:10	87-68-3	
2-Hexanone	ND	ug/kg	58.2	4.5	1		12/22/15 04:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	99-87-6	
Methylene Chloride	**20.6J**	ug/kg	23.3	3.5	1		12/22/15 04:10	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-36B (23-25) **Lab ID: 92280019010** Collected: 12/15/15 08:35 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	58.2	4.3	1		12/22/15 04:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.8	1.7	1		12/22/15 04:10	1634-04-4	
Naphthalene	ND	ug/kg	5.8	1.4	1		12/22/15 04:10	91-20-3	
n-Propylbenzene	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	103-65-1	
Styrene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.8	2.4	1		12/22/15 04:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	79-34-5	
Tetrachloroethene	ND	ug/kg	5.8	2.0	1		12/22/15 04:10	127-18-4	
Toluene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.8	2.6	1		12/22/15 04:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.9	1		12/22/15 04:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.8	2.4	1		12/22/15 04:10	79-00-5	
Trichloroethene	ND	ug/kg	5.8	2.4	1		12/22/15 04:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.8	2.6	1		12/22/15 04:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.8	1.9	1		12/22/15 04:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.3	1		12/22/15 04:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.1	1		12/22/15 04:10	108-67-8	
Vinyl acetate	ND	ug/kg	58.2	10.2	1		12/22/15 04:10	108-05-4	
Vinyl chloride	ND	ug/kg	11.6	2.1	1		12/22/15 04:10	75-01-4	
Xylene (Total)	ND	ug/kg	11.6	4.2	1		12/22/15 04:10	1330-20-7	
m&p-Xylene	ND	ug/kg	11.6	4.2	1		12/22/15 04:10	179601-23-1	
o-Xylene	ND	ug/kg	5.8	2.2	1		12/22/15 04:10	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/22/15 04:10	2037-26-5	
4-Bromofluorobenzene (S)	93	%	70-130		1		12/22/15 04:10	460-00-4	
1,2-Dichloroethane-d4 (S)	150	%	70-132		1		12/22/15 04:10	17060-07-0	S3
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.5**	%	0.10	0.10	1		12/18/15 11:38		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (0-2) **Lab ID: 92280019011** Collected: 12/15/15 08:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	101	10.1	1		12/22/15 14:06	67-64-1	
Benzene	ND	ug/kg	5.1	1.6	1		12/22/15 14:06	71-43-2	
Bromobenzene	ND	ug/kg	5.1	2.0	1		12/22/15 14:06	108-86-1	
Bromochloromethane	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	74-97-5	
Bromodichloromethane	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	75-27-4	
Bromoform	ND	ug/kg	5.1	2.3	1		12/22/15 14:06	75-25-2	
Bromomethane	ND	ug/kg	10.1	2.5	1		12/22/15 14:06	74-83-9	
2-Butanone (MEK)	ND	ug/kg	101	2.9	1		12/22/15 14:06	78-93-3	
n-Butylbenzene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.1	1.6	1		12/22/15 14:06	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.1	2.0	1		12/22/15 14:06	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.1	2.6	1		12/22/15 14:06	56-23-5	
Chlorobenzene	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	108-90-7	
Chloroethane	ND	ug/kg	10.1	2.4	1		12/22/15 14:06	75-00-3	
Chloroform	ND	ug/kg	5.1	1.6	1		12/22/15 14:06	67-66-3	
Chloromethane	ND	ug/kg	10.1	2.4	1		12/22/15 14:06	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.1	3.7	1		12/22/15 14:06	96-12-8	
Dibromochloromethane	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	106-93-4	
Dibromomethane	ND	ug/kg	5.1	2.5	1		12/22/15 14:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.1	2.0	1		12/22/15 14:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.1	3.7	1		12/22/15 14:06	75-71-8	
1,1-Dichloroethane	**54.2**	ug/kg	5.1	1.5	1		12/22/15 14:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.1	2.2	1		12/22/15 14:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	75-35-4	
cis-1,2-Dichloroethene	**518**	ug/kg	267	74.7	50		12/22/15 04:30	156-59-2	
trans-1,2-Dichloroethene	**7.5**	ug/kg	5.1	1.9	1		12/22/15 14:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/22/15 14:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.1	1.5	1		12/22/15 14:06	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	152	122	1		12/22/15 14:06	123-91-1	
Ethylbenzene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.1	2.0	1		12/22/15 14:06	87-68-3	
2-Hexanone	ND	ug/kg	50.7	4.0	1		12/22/15 14:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	99-87-6	
Methylene Chloride	**10.8J**	ug/kg	20.3	3.0	1		12/22/15 14:06	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (0-2) **Lab ID: 92280019011** Collected: 12/15/15 08:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.7	3.8	1		12/22/15 14:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.1	1.5	1		12/22/15 14:06	1634-04-4	
Naphthalene	ND	ug/kg	5.1	1.2	1		12/22/15 14:06	91-20-3	
n-Propylbenzene	ND	ug/kg	5.1	1.7	1		12/22/15 14:06	103-65-1	
Styrene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.1	2.1	1		12/22/15 14:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	79-34-5	
Tetrachloroethene	**6.6**	ug/kg	5.1	1.7	1		12/22/15 14:06	127-18-4	
Toluene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.1	2.2	1		12/22/15 14:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.1	1.6	1		12/22/15 14:06	120-82-1	
1,1,1-Trichloroethane	**11.1**	ug/kg	5.1	1.8	1		12/22/15 14:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.1	2.1	1		12/22/15 14:06	79-00-5	
Trichloroethene	**2.8J**	ug/kg	5.1	2.1	1		12/22/15 14:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.1	2.2	1		12/22/15 14:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.1	1.6	1		12/22/15 14:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.1	2.0	1		12/22/15 14:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.1	1.8	1		12/22/15 14:06	108-67-8	
Vinyl acetate	ND	ug/kg	50.7	8.9	1		12/22/15 14:06	108-05-4	
Vinyl chloride	ND	ug/kg	10.1	1.8	1		12/22/15 14:06	75-01-4	
Xylene (Total)	ND	ug/kg	10.1	3.7	1		12/22/15 14:06	1330-20-7	
m&p-Xylene	ND	ug/kg	10.1	3.7	1		12/22/15 14:06	179601-23-1	
o-Xylene	ND	ug/kg	5.1	1.9	1		12/22/15 14:06	95-47-6	
Surrogates									
Toluene-d8 (S)	95	%	70-130		1		12/22/15 14:06	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		1		12/22/15 14:06	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-132		1		12/22/15 14:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**2.2**	%	0.10	0.10	1		12/18/15 11:38		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (3-5) **Lab ID: 92280019012** Collected: 12/15/15 08:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	103	10.3	1		12/22/15 04:50	67-64-1	
Benzene	ND	ug/kg	5.2	1.7	1		12/22/15 04:50	71-43-2	
Bromobenzene	ND	ug/kg	5.2	2.1	1		12/22/15 04:50	108-86-1	
Bromochloromethane	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	74-97-5	
Bromodichloromethane	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	75-27-4	
Bromoform	ND	ug/kg	5.2	2.4	1		12/22/15 04:50	75-25-2	
Bromomethane	ND	ug/kg	10.3	2.6	1		12/22/15 04:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	103	3.0	1		12/22/15 04:50	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1.7	1		12/22/15 04:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	2.1	1		12/22/15 04:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.2	2.7	1		12/22/15 04:50	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	108-90-7	
Chloroethane	ND	ug/kg	10.3	2.5	1		12/22/15 04:50	75-00-3	
Chloroform	ND	ug/kg	5.2	1.7	1		12/22/15 04:50	67-66-3	
Chloromethane	ND	ug/kg	10.3	2.5	1		12/22/15 04:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.2	3.7	1		12/22/15 04:50	96-12-8	
Dibromochloromethane	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	106-93-4	
Dibromomethane	ND	ug/kg	5.2	2.6	1		12/22/15 04:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	2.1	1		12/22/15 04:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.3	3.7	1		12/22/15 04:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.2	1.5	1		12/22/15 04:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	2.3	1		12/22/15 04:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1.4	1		12/22/15 04:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.2	1.5	1		12/22/15 04:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1.5	1		12/22/15 04:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	155	124	1		12/22/15 04:50	123-91-1	
Ethylbenzene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.2	2.1	1		12/22/15 04:50	87-68-3	
2-Hexanone	ND	ug/kg	51.7	4.0	1		12/22/15 04:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	99-87-6	
Methylene Chloride	**18.6J**	ug/kg	20.7	3.1	1		12/22/15 04:50	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (3-5) **Lab ID: 92280019012** Collected: 12/15/15 08:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	51.7	3.8	1		12/22/15 04:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1.5	1		12/22/15 04:50	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1.2	1		12/22/15 04:50	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1.8	1		12/22/15 04:50	103-65-1	
Styrene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.2	2.2	1		12/22/15 04:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	79-34-5	
Tetrachloroethene	**4.3J**	ug/kg	5.2	1.8	1		12/22/15 04:50	127-18-4	
Toluene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.2	2.3	1		12/22/15 04:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.2	1.7	1		12/22/15 04:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	2.2	1		12/22/15 04:50	79-00-5	
Trichloroethene	ND	ug/kg	5.2	2.2	1		12/22/15 04:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.2	2.3	1		12/22/15 04:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.2	1.7	1		12/22/15 04:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	2.1	1		12/22/15 04:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1.9	1		12/22/15 04:50	108-67-8	
Vinyl acetate	ND	ug/kg	51.7	9.1	1		12/22/15 04:50	108-05-4	
Vinyl chloride	ND	ug/kg	10.3	1.9	1		12/22/15 04:50	75-01-4	
Xylene (Total)	ND	ug/kg	10.3	3.7	1		12/22/15 04:50	1330-20-7	
m&p-Xylene	ND	ug/kg	10.3	3.7	1		12/22/15 04:50	179601-23-1	
o-Xylene	ND	ug/kg	5.2	2.0	1		12/22/15 04:50	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/22/15 04:50	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/22/15 04:50	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-132		1		12/22/15 04:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.9**	%	0.10	0.10	1		12/18/15 11:38		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (8-10) **Lab ID: 92280019013** Collected: 12/15/15 09:00 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	101	10.1	1		12/22/15 05:10	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/22/15 05:10	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/22/15 05:10	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/22/15 05:10	75-25-2	
Bromomethane	ND	ug/kg	10.1	2.5	1		12/22/15 05:10	74-83-9	
2-Butanone (MEK)	ND	ug/kg	101	2.9	1		12/22/15 05:10	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/22/15 05:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/22/15 05:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/22/15 05:10	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	108-90-7	
Chloroethane	ND	ug/kg	10.1	2.4	1		12/22/15 05:10	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/22/15 05:10	67-66-3	
Chloromethane	ND	ug/kg	10.1	2.4	1		12/22/15 05:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/22/15 05:10	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/22/15 05:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/22/15 05:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.1	3.6	1		12/22/15 05:10	75-71-8	
1,1-Dichloroethane	**4.5J**	ug/kg	5.0	1.5	1		12/22/15 05:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/22/15 05:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	75-35-4	
cis-1,2-Dichloroethene	**24.5**	ug/kg	5.0	1.4	1		12/22/15 05:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/22/15 05:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/22/15 05:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	151	121	1		12/22/15 05:10	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/22/15 05:10	87-68-3	
2-Hexanone	ND	ug/kg	50.3	3.9	1		12/22/15 05:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	99-87-6	
Methylene Chloride	**24.1**	ug/kg	20.1	3.0	1		12/22/15 05:10	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (8-10) **Lab ID: 92280019013** Collected: 12/15/15 09:00 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.3	3.7	1		12/22/15 05:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/22/15 05:10	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/22/15 05:10	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/22/15 05:10	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/22/15 05:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	79-34-5	
Tetrachloroethene	**1.9J**	ug/kg	5.0	1.7	1		12/22/15 05:10	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/22/15 05:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/22/15 05:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/22/15 05:10	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/22/15 05:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/22/15 05:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/22/15 05:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/22/15 05:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 05:10	108-67-8	
Vinyl acetate	ND	ug/kg	50.3	8.8	1		12/22/15 05:10	108-05-4	
Vinyl chloride	ND	ug/kg	10.1	1.8	1		12/22/15 05:10	75-01-4	
Xylene (Total)	ND	ug/kg	10.1	3.6	1		12/22/15 05:10	1330-20-7	
m&p-Xylene	ND	ug/kg	10.1	3.6	1		12/22/15 05:10	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/22/15 05:10	95-47-6	
Surrogates									
Toluene-d8 (S)	98	%	70-130		1		12/22/15 05:10	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/22/15 05:10	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-132		1		12/22/15 05:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.7**	%	0.10	0.10	1		12/18/15 11:39		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (13-15) **Lab ID: 92280019014** Collected: 12/15/15 09:00 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	90.3	9.0	1		12/22/15 05:30	67-64-1	
Benzene	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	71-43-2	
Bromobenzene	ND	ug/kg	4.5	1.8	1		12/22/15 05:30	108-86-1	
Bromochloromethane	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	74-97-5	
Bromodichloromethane	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	75-27-4	
Bromoform	ND	ug/kg	4.5	2.1	1		12/22/15 05:30	75-25-2	
Bromomethane	ND	ug/kg	9.0	2.3	1		12/22/15 05:30	74-83-9	
2-Butanone (MEK)	ND	ug/kg	90.3	2.6	1		12/22/15 05:30	78-93-3	
n-Butylbenzene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.5	1.8	1		12/22/15 05:30	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.5	2.3	1		12/22/15 05:30	56-23-5	
Chlorobenzene	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	108-90-7	
Chloroethane	ND	ug/kg	9.0	2.2	1		12/22/15 05:30	75-00-3	
Chloroform	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	67-66-3	
Chloromethane	ND	ug/kg	9.0	2.2	1		12/22/15 05:30	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.5	3.3	1		12/22/15 05:30	96-12-8	
Dibromochloromethane	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	106-93-4	
Dibromomethane	ND	ug/kg	4.5	2.3	1		12/22/15 05:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.5	1.8	1		12/22/15 05:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.0	3.3	1		12/22/15 05:30	75-71-8	
1,1-Dichloroethane	**8.0**	ug/kg	4.5	1.4	1		12/22/15 05:30	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.5	2.0	1		12/22/15 05:30	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	75-35-4	
cis-1,2-Dichloroethene	**23.7**	ug/kg	4.5	1.3	1		12/22/15 05:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	135	108	1		12/22/15 05:30	123-91-1	
Ethylbenzene	**5.7**	ug/kg	4.5	1.6	1		12/22/15 05:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.5	1.8	1		12/22/15 05:30	87-68-3	
2-Hexanone	ND	ug/kg	45.2	3.5	1		12/22/15 05:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	99-87-6	
Methylene Chloride	**20.0**	ug/kg	18.1	2.7	1		12/22/15 05:30	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (13-15) **Lab ID: 92280019014** Collected: 12/15/15 09:00 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	45.2	3.3	1		12/22/15 05:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	1634-04-4	
Naphthalene	ND	ug/kg	4.5	1.1	1		12/22/15 05:30	91-20-3	
n-Propylbenzene	ND	ug/kg	4.5	1.5	1		12/22/15 05:30	103-65-1	
Styrene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.5	1.9	1		12/22/15 05:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5	1.7	1		12/22/15 05:30	79-34-5	
Tetrachloroethene	**1.6J**	ug/kg	4.5	1.5	1		12/22/15 05:30	127-18-4	
Toluene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.5	2.0	1		12/22/15 05:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.5	1.9	1		12/22/15 05:30	79-00-5	
Trichloroethene	ND	ug/kg	4.5	1.9	1		12/22/15 05:30	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.5	2.0	1		12/22/15 05:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.5	1.4	1		12/22/15 05:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.5	1.8	1		12/22/15 05:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	1.6	1		12/22/15 05:30	108-67-8	
Vinyl acetate	ND	ug/kg	45.2	7.9	1		12/22/15 05:30	108-05-4	L2
Vinyl chloride	ND	ug/kg	9.0	1.6	1		12/22/15 05:30	75-01-4	
Xylene (Total)	**10.6**	ug/kg	9.0	3.3	1		12/22/15 05:30	1330-20-7	
m&p-Xylene	**4.9J**	ug/kg	9.0	3.3	1		12/22/15 05:30	179601-23-1	
o-Xylene	**10.6**	ug/kg	4.5	1.7	1		12/22/15 05:30	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/22/15 05:30	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		12/22/15 05:30	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	70-132		1		12/22/15 05:30	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		12/18/15 11:39		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (23-25) **Lab ID: 92280019015** Collected: 12/15/15 09:05 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	**18.6J**	ug/kg	119	11.9	1		12/22/15 05:50	67-64-1	
Benzene	ND	ug/kg	5.9	1.9	1		12/22/15 05:50	71-43-2	
Bromobenzene	ND	ug/kg	5.9	2.4	1		12/22/15 05:50	108-86-1	
Bromochloromethane	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	74-97-5	
Bromodichloromethane	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	75-27-4	
Bromoform	ND	ug/kg	5.9	2.7	1		12/22/15 05:50	75-25-2	
Bromomethane	ND	ug/kg	11.9	3.0	1		12/22/15 05:50	74-83-9	
2-Butanone (MEK)	ND	ug/kg	119	3.4	1		12/22/15 05:50	78-93-3	
n-Butylbenzene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.9	1.9	1		12/22/15 05:50	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.9	2.4	1		12/22/15 05:50	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.9	3.1	1		12/22/15 05:50	56-23-5	
Chlorobenzene	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	108-90-7	
Chloroethane	ND	ug/kg	11.9	2.8	1		12/22/15 05:50	75-00-3	
Chloroform	ND	ug/kg	5.9	1.9	1		12/22/15 05:50	67-66-3	
Chloromethane	ND	ug/kg	11.9	2.8	1		12/22/15 05:50	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.9	4.3	1		12/22/15 05:50	96-12-8	
Dibromochloromethane	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	106-93-4	
Dibromomethane	ND	ug/kg	5.9	3.0	1		12/22/15 05:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.9	2.4	1		12/22/15 05:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.9	4.3	1		12/22/15 05:50	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.9	1.8	1		12/22/15 05:50	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.9	2.6	1		12/22/15 05:50	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	75-35-4	
cis-1,2-Dichloroethene	**3.9J**	ug/kg	5.9	1.7	1		12/22/15 05:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/22/15 05:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.9	1.8	1		12/22/15 05:50	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	178	142	1		12/22/15 05:50	123-91-1	
Ethylbenzene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.9	2.4	1		12/22/15 05:50	87-68-3	
2-Hexanone	ND	ug/kg	59.3	4.6	1		12/22/15 05:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	99-87-6	
Methylene Chloride	**22.5J**	ug/kg	23.7	3.6	1		12/22/15 05:50	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (23-25) **Lab ID: 92280019015** Collected: 12/15/15 09:05 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.3	4.4	1		12/22/15 05:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.9	1.8	1		12/22/15 05:50	1634-04-4	
Naphthalene	ND	ug/kg	5.9	1.4	1		12/22/15 05:50	91-20-3	
n-Propylbenzene	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	103-65-1	
Styrene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.9	2.5	1		12/22/15 05:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	79-34-5	
Tetrachloroethene	ND	ug/kg	5.9	2.0	1		12/22/15 05:50	127-18-4	
Toluene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.9	2.6	1		12/22/15 05:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.9	1.9	1		12/22/15 05:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.9	2.5	1		12/22/15 05:50	79-00-5	
Trichloroethene	ND	ug/kg	5.9	2.5	1		12/22/15 05:50	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.9	2.6	1		12/22/15 05:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.9	1.9	1		12/22/15 05:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.9	2.4	1		12/22/15 05:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.9	2.1	1		12/22/15 05:50	108-67-8	
Vinyl acetate	ND	ug/kg	59.3	10.4	1		12/22/15 05:50	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.9	2.1	1		12/22/15 05:50	75-01-4	
Xylene (Total)	ND	ug/kg	11.9	4.3	1		12/22/15 05:50	1330-20-7	
m&p-Xylene	ND	ug/kg	11.9	4.3	1		12/22/15 05:50	179601-23-1	
o-Xylene	ND	ug/kg	5.9	2.3	1		12/22/15 05:50	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/22/15 05:50	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/22/15 05:50	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-132		1		12/22/15 05:50	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		12/18/15 11:39		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (18-20) **Lab ID: 92280019016** Collected: 12/15/15 09:10 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	113	11.3	1		12/22/15 06:10	67-64-1	
Benzene	ND	ug/kg	5.7	1.8	1		12/22/15 06:10	71-43-2	
Bromobenzene	ND	ug/kg	5.7	2.3	1		12/22/15 06:10	108-86-1	
Bromochloromethane	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	74-97-5	
Bromodichloromethane	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	75-27-4	
Bromoform	ND	ug/kg	5.7	2.6	1		12/22/15 06:10	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		12/22/15 06:10	74-83-9	M1
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		12/22/15 06:10	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1.8	1		12/22/15 06:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	2.3	1		12/22/15 06:10	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.7	2.9	1		12/22/15 06:10	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		12/22/15 06:10	75-00-3	
Chloroform	ND	ug/kg	5.7	1.8	1		12/22/15 06:10	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		12/22/15 06:10	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.7	4.1	1		12/22/15 06:10	96-12-8	
Dibromochloromethane	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	106-93-4	
Dibromomethane	ND	ug/kg	5.7	2.8	1		12/22/15 06:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	2.3	1		12/22/15 06:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		12/22/15 06:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.7	1.7	1		12/22/15 06:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	2.5	1		12/22/15 06:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	75-35-4	
cis-1,2-Dichloroethene	**3.8J**	ug/kg	5.7	1.6	1		12/22/15 06:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/22/15 06:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1.7	1		12/22/15 06:10	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	170	136	1		12/22/15 06:10	123-91-1	
Ethylbenzene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.7	2.3	1		12/22/15 06:10	87-68-3	
2-Hexanone	ND	ug/kg	56.6	4.4	1		12/22/15 06:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	99-87-6	
Methylene Chloride	**19.2J**	ug/kg	22.6	3.4	1		12/22/15 06:10	75-09-2	M1

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A (18-20) **Lab ID: 92280019016** Collected: 12/15/15 09:10 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.6	4.2	1		12/22/15 06:10	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1.7	1		12/22/15 06:10	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1.4	1		12/22/15 06:10	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	103-65-1	
Styrene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.7	2.4	1		12/22/15 06:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	79-34-5	
Tetrachloroethene	ND	ug/kg	5.7	1.9	1		12/22/15 06:10	127-18-4	
Toluene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.7	2.5	1		12/22/15 06:10	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.7	1.8	1		12/22/15 06:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	2.4	1		12/22/15 06:10	79-00-5	
Trichloroethene	ND	ug/kg	5.7	2.4	1		12/22/15 06:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.7	2.5	1		12/22/15 06:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.7	1.8	1		12/22/15 06:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	2.3	1		12/22/15 06:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	2.0	1		12/22/15 06:10	108-67-8	
Vinyl acetate	ND	ug/kg	56.6	10	1		12/22/15 06:10	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.3	2.0	1		12/22/15 06:10	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		12/22/15 06:10	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		12/22/15 06:10	179601-23-1	
o-Xylene	ND	ug/kg	5.7	2.1	1		12/22/15 06:10	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		12/22/15 06:10	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/22/15 06:10	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		1		12/22/15 06:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.9**	%	0.10	0.10	1		12/18/15 11:39		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: TB-07 **Lab ID: 92280019017** Collected: 12/15/15 09:15 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	100	10.0	1		12/22/15 16:12	67-64-1	
Benzene	ND	ug/kg	5.0	1.6	1		12/22/15 16:12	71-43-2	
Bromobenzene	ND	ug/kg	5.0	2.0	1		12/22/15 16:12	108-86-1	
Bromochloromethane	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	74-97-5	
Bromodichloromethane	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	75-27-4	
Bromoform	ND	ug/kg	5.0	2.3	1		12/22/15 16:12	75-25-2	
Bromomethane	ND	ug/kg	10.0	2.5	1		12/22/15 16:12	74-83-9	
2-Butanone (MEK)	ND	ug/kg	100	2.9	1		12/22/15 16:12	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1.6	1		12/22/15 16:12	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	2.0	1		12/22/15 16:12	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.0	2.6	1		12/22/15 16:12	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	108-90-7	
Chloroethane	ND	ug/kg	10.0	2.4	1		12/22/15 16:12	75-00-3	
Chloroform	ND	ug/kg	5.0	1.6	1		12/22/15 16:12	67-66-3	
Chloromethane	ND	ug/kg	10.0	2.4	1		12/22/15 16:12	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	3.6	1		12/22/15 16:12	96-12-8	
Dibromochloromethane	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	106-93-4	
Dibromomethane	ND	ug/kg	5.0	2.5	1		12/22/15 16:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	2.0	1		12/22/15 16:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	10.0	3.6	1		12/22/15 16:12	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.0	1.5	1		12/22/15 16:12	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	2.2	1		12/22/15 16:12	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1.4	1		12/22/15 16:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/22/15 16:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1.5	1		12/22/15 16:12	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	150	120	1		12/22/15 16:12	123-91-1	
Ethylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	2.0	1		12/22/15 16:12	87-68-3	
2-Hexanone	ND	ug/kg	50.0	3.9	1		12/22/15 16:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	99-87-6	
Methylene Chloride	**14.3J**	ug/kg	20.0	3.0	1		12/22/15 16:12	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: TB-07 **Lab ID: 92280019017** Collected: 12/15/15 09:15 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	50.0	3.7	1		12/22/15 16:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1.5	1		12/22/15 16:12	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1.2	1		12/22/15 16:12	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	103-65-1	
Styrene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	2.1	1		12/22/15 16:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	79-34-5	
Tetrachloroethene	ND	ug/kg	5.0	1.7	1		12/22/15 16:12	127-18-4	
Toluene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	2.2	1		12/22/15 16:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	1.6	1		12/22/15 16:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	2.1	1		12/22/15 16:12	79-00-5	
Trichloroethene	ND	ug/kg	5.0	2.1	1		12/22/15 16:12	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.0	2.2	1		12/22/15 16:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.0	1.6	1		12/22/15 16:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	2.0	1		12/22/15 16:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1.8	1		12/22/15 16:12	108-67-8	
Vinyl acetate	ND	ug/kg	50.0	8.8	1		12/22/15 16:12	108-05-4	
Vinyl chloride	ND	ug/kg	10.0	1.8	1		12/22/15 16:12	75-01-4	
Xylene (Total)	ND	ug/kg	10.0	3.6	1		12/22/15 16:12	1330-20-7	
m&p-Xylene	ND	ug/kg	10.0	3.6	1		12/22/15 16:12	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1.9	1		12/22/15 16:12	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/22/15 16:12	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/22/15 16:12	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-132		1		12/22/15 16:12	17060-07-0	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A(28-30) **Lab ID: 92280019018** Collected: 12/15/15 09:15 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	129	12.9	1		12/22/15 06:49	67-64-1	
Benzene	ND	ug/kg	6.5	2.1	1		12/22/15 06:49	71-43-2	
Bromobenzene	ND	ug/kg	6.5	2.6	1		12/22/15 06:49	108-86-1	
Bromochloromethane	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	74-97-5	
Bromodichloromethane	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	75-27-4	
Bromoform	ND	ug/kg	6.5	3.0	1		12/22/15 06:49	75-25-2	
Bromomethane	ND	ug/kg	12.9	3.2	1		12/22/15 06:49	74-83-9	
2-Butanone (MEK)	ND	ug/kg	129	3.7	1		12/22/15 06:49	78-93-3	
n-Butylbenzene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.5	2.1	1		12/22/15 06:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.5	2.6	1		12/22/15 06:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.5	3.4	1		12/22/15 06:49	56-23-5	
Chlorobenzene	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	108-90-7	
Chloroethane	ND	ug/kg	12.9	3.1	1		12/22/15 06:49	75-00-3	
Chloroform	ND	ug/kg	6.5	2.1	1		12/22/15 06:49	67-66-3	
Chloromethane	ND	ug/kg	12.9	3.1	1		12/22/15 06:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5	4.6	1		12/22/15 06:49	96-12-8	
Dibromochloromethane	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	106-93-4	
Dibromomethane	ND	ug/kg	6.5	3.2	1		12/22/15 06:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.5	2.6	1		12/22/15 06:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.9	4.6	1		12/22/15 06:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.5	1.9	1		12/22/15 06:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.5	2.8	1		12/22/15 06:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.5	1.8	1		12/22/15 06:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.5	1.9	1		12/22/15 06:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.5	1.9	1		12/22/15 06:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	194	155	1		12/22/15 06:49	123-91-1	
Ethylbenzene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.5	2.6	1		12/22/15 06:49	87-68-3	
2-Hexanone	ND	ug/kg	64.6	5.0	1		12/22/15 06:49	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	99-87-6	
Methylene Chloride	**36.6**	ug/kg	25.8	3.9	1		12/22/15 06:49	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-39A(28-30) **Lab ID: 92280019018** Collected: 12/15/15 09:15 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	64.6	4.8	1		12/22/15 06:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.5	1.9	1		12/22/15 06:49	1634-04-4	
Naphthalene	ND	ug/kg	6.5	1.5	1		12/22/15 06:49	91-20-3	
n-Propylbenzene	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	103-65-1	
Styrene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.5	2.7	1		12/22/15 06:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	79-34-5	
Tetrachloroethene	ND	ug/kg	6.5	2.2	1		12/22/15 06:49	127-18-4	
Toluene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.5	2.8	1		12/22/15 06:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.5	2.1	1		12/22/15 06:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.5	2.7	1		12/22/15 06:49	79-00-5	
Trichloroethene	ND	ug/kg	6.5	2.7	1		12/22/15 06:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.5	2.8	1		12/22/15 06:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.5	2.1	1		12/22/15 06:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.5	2.6	1		12/22/15 06:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.5	2.3	1		12/22/15 06:49	108-67-8	
Vinyl acetate	ND	ug/kg	64.6	11.4	1		12/22/15 06:49	108-05-4	L2
Vinyl chloride	ND	ug/kg	12.9	2.3	1		12/22/15 06:49	75-01-4	
Xylene (Total)	ND	ug/kg	12.9	4.6	1		12/22/15 06:49	1330-20-7	
m&p-Xylene	ND	ug/kg	12.9	4.6	1		12/22/15 06:49	179601-23-1	
o-Xylene	ND	ug/kg	6.5	2.5	1		12/22/15 06:49	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		12/22/15 06:49	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/22/15 06:49	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		12/22/15 06:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		12/18/15 11:39		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-41A(3-5) **Lab ID: 92280019019** Collected: 12/15/15 09:20 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	113	11.3	1		12/22/15 07:09	67-64-1	
Benzene	ND	ug/kg	5.6	1.8	1		12/22/15 07:09	71-43-2	
Bromobenzene	ND	ug/kg	5.6	2.3	1		12/22/15 07:09	108-86-1	
Bromochloromethane	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	74-97-5	
Bromodichloromethane	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	75-27-4	
Bromoform	ND	ug/kg	5.6	2.6	1		12/22/15 07:09	75-25-2	
Bromomethane	ND	ug/kg	11.3	2.8	1		12/22/15 07:09	74-83-9	
2-Butanone (MEK)	ND	ug/kg	113	3.3	1		12/22/15 07:09	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1.8	1		12/22/15 07:09	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	2.3	1		12/22/15 07:09	98-06-6	
Carbon tetrachloride	ND	ug/kg	5.6	2.9	1		12/22/15 07:09	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	108-90-7	
Chloroethane	ND	ug/kg	11.3	2.7	1		12/22/15 07:09	75-00-3	
Chloroform	ND	ug/kg	5.6	1.8	1		12/22/15 07:09	67-66-3	
Chloromethane	ND	ug/kg	11.3	2.7	1		12/22/15 07:09	74-87-3	
2-Chlorotoluene	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	95-49-8	
4-Chlorotoluene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.6	4.1	1		12/22/15 07:09	96-12-8	
Dibromochloromethane	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	106-93-4	
Dibromomethane	ND	ug/kg	5.6	2.8	1		12/22/15 07:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	2.3	1		12/22/15 07:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	11.3	4.1	1		12/22/15 07:09	75-71-8	
1,1-Dichloroethane	ND	ug/kg	5.6	1.7	1		12/22/15 07:09	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	2.5	1		12/22/15 07:09	107-06-2	
1,1-Dichloroethene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	75-35-4	
cis-1,2-Dichloroethene	**35.9**	ug/kg	5.6	1.6	1		12/22/15 07:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	78-87-5	
1,3-Dichloropropane	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	142-28-9	
2,2-Dichloropropane	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	594-20-7	
1,1-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/22/15 07:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1.7	1		12/22/15 07:09	10061-02-6	
Diisopropyl ether	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	169	135	1		12/22/15 07:09	123-91-1	
Ethylbenzene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	5.6	2.3	1		12/22/15 07:09	87-68-3	
2-Hexanone	ND	ug/kg	56.4	4.4	1		12/22/15 07:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	99-87-6	
Methylene Chloride	**14.1J**	ug/kg	22.6	3.4	1		12/22/15 07:09	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-41A(3-5) **Lab ID: 92280019019** Collected: 12/15/15 09:20 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	56.4	4.2	1		12/22/15 07:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1.7	1		12/22/15 07:09	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1.4	1		12/22/15 07:09	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1.9	1		12/22/15 07:09	103-65-1	
Styrene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.6	2.4	1		12/22/15 07:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	79-34-5	
Tetrachloroethene	**46.8**	ug/kg	5.6	1.9	1		12/22/15 07:09	127-18-4	
Toluene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	5.6	2.5	1		12/22/15 07:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	5.6	1.8	1		12/22/15 07:09	120-82-1	
1,1,1-Trichloroethane	**2.2J**	ug/kg	5.6	2.0	1		12/22/15 07:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	2.4	1		12/22/15 07:09	79-00-5	
Trichloroethene	**17.4**	ug/kg	5.6	2.4	1		12/22/15 07:09	79-01-6	
Trichlorofluoromethane	ND	ug/kg	5.6	2.5	1		12/22/15 07:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	5.6	1.8	1		12/22/15 07:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	2.3	1		12/22/15 07:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	2.0	1		12/22/15 07:09	108-67-8	
Vinyl acetate	ND	ug/kg	56.4	9.9	1		12/22/15 07:09	108-05-4	L2
Vinyl chloride	ND	ug/kg	11.3	2.0	1		12/22/15 07:09	75-01-4	
Xylene (Total)	ND	ug/kg	11.3	4.1	1		12/22/15 07:09	1330-20-7	
m&p-Xylene	ND	ug/kg	11.3	4.1	1		12/22/15 07:09	179601-23-1	
o-Xylene	ND	ug/kg	5.6	2.1	1		12/22/15 07:09	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/22/15 07:09	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		12/22/15 07:09	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-132		1		12/22/15 07:09	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.6**	%	0.10	0.10	1		12/18/15 11:39		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-41A(0-2) **Lab ID: 92280019020** Collected: 12/15/15 09:20 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	121	12.1	1		12/22/15 14:26	67-64-1	
Benzene	ND	ug/kg	6.1	1.9	1		12/22/15 14:26	71-43-2	
Bromobenzene	ND	ug/kg	6.1	2.4	1		12/22/15 14:26	108-86-1	
Bromochloromethane	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	74-97-5	
Bromodichloromethane	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	75-27-4	
Bromoform	ND	ug/kg	6.1	2.8	1		12/22/15 14:26	75-25-2	
Bromomethane	ND	ug/kg	12.1	3.0	1		12/22/15 14:26	74-83-9	
2-Butanone (MEK)	ND	ug/kg	121	3.5	1		12/22/15 14:26	78-93-3	
n-Butylbenzene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.1	1.9	1		12/22/15 14:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.1	2.4	1		12/22/15 14:26	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.1	3.1	1		12/22/15 14:26	56-23-5	
Chlorobenzene	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	108-90-7	
Chloroethane	ND	ug/kg	12.1	2.9	1		12/22/15 14:26	75-00-3	
Chloroform	ND	ug/kg	6.1	1.9	1		12/22/15 14:26	67-66-3	
Chloromethane	ND	ug/kg	12.1	2.9	1		12/22/15 14:26	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.1	4.4	1		12/22/15 14:26	96-12-8	
Dibromochloromethane	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	106-93-4	
Dibromomethane	ND	ug/kg	6.1	3.0	1		12/22/15 14:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.1	2.4	1		12/22/15 14:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.1	4.4	1		12/22/15 14:26	75-71-8	
1,1-Dichloroethane	**2.7J**	ug/kg	6.1	1.8	1		12/22/15 14:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.1	2.7	1		12/22/15 14:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	75-35-4	
cis-1,2-Dichloroethene	**54.0**	ug/kg	6.1	1.7	1		12/22/15 14:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.1	1.8	1		12/22/15 14:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.1	1.8	1		12/22/15 14:26	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	182	145	1		12/22/15 14:26	123-91-1	
Ethylbenzene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.1	2.4	1		12/22/15 14:26	87-68-3	
2-Hexanone	ND	ug/kg	60.6	4.7	1		12/22/15 14:26	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	99-87-6	
Methylene Chloride	**7.1J**	ug/kg	24.2	3.6	1		12/22/15 14:26	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-41A(0-2) **Lab ID: 92280019020** Collected: 12/15/15 09:20 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	60.6	4.5	1		12/22/15 14:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.1	1.8	1		12/22/15 14:26	1634-04-4	
Naphthalene	ND	ug/kg	6.1	1.5	1		12/22/15 14:26	91-20-3	
n-Propylbenzene	ND	ug/kg	6.1	2.1	1		12/22/15 14:26	103-65-1	
Styrene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.1	2.5	1		12/22/15 14:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	79-34-5	
Tetrachloroethene	**33.7**	ug/kg	6.1	2.1	1		12/22/15 14:26	127-18-4	
Toluene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.1	2.7	1		12/22/15 14:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.1	1.9	1		12/22/15 14:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.1	2.5	1		12/22/15 14:26	79-00-5	
Trichloroethene	**9.2**	ug/kg	6.1	2.5	1		12/22/15 14:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.1	2.7	1		12/22/15 14:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.1	1.9	1		12/22/15 14:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.1	2.4	1		12/22/15 14:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.1	2.2	1		12/22/15 14:26	108-67-8	
Vinyl acetate	ND	ug/kg	60.6	10.7	1		12/22/15 14:26	108-05-4	
Vinyl chloride	ND	ug/kg	12.1	2.2	1		12/22/15 14:26	75-01-4	
Xylene (Total)	ND	ug/kg	12.1	4.4	1		12/22/15 14:26	1330-20-7	
m&p-Xylene	ND	ug/kg	12.1	4.4	1		12/22/15 14:26	179601-23-1	
o-Xylene	ND	ug/kg	6.1	2.3	1		12/22/15 14:26	95-47-6	
Surrogates									
Toluene-d8 (S)	87	%	70-130		1		12/22/15 14:26	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		12/22/15 14:26	460-00-4	
1,2-Dichloroethane-d4 (S)	120	%	70-132		1		12/22/15 14:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**3.1**	%	0.10	0.10	1		12/18/15 11:40		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-44A(0-2) **Lab ID: 92280019021** Collected: 12/15/15 09:25 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	2750	275	25		12/22/15 07:49	67-64-1	
Benzene	ND	ug/kg	138	44.1	25		12/22/15 07:49	71-43-2	
Bromobenzene	ND	ug/kg	138	55.1	25		12/22/15 07:49	108-86-1	
Bromochloromethane	ND	ug/kg	138	46.8	25		12/22/15 07:49	74-97-5	
Bromodichloromethane	ND	ug/kg	138	52.3	25		12/22/15 07:49	75-27-4	
Bromoform	ND	ug/kg	138	63.3	25		12/22/15 07:49	75-25-2	
Bromomethane	ND	ug/kg	275	68.9	25		12/22/15 07:49	74-83-9	
2-Butanone (MEK)	ND	ug/kg	2750	79.9	25		12/22/15 07:49	78-93-3	
n-Butylbenzene	ND	ug/kg	138	49.6	25		12/22/15 07:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	138	44.1	25		12/22/15 07:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	138	55.1	25		12/22/15 07:49	98-06-6	
Carbon tetrachloride	ND	ug/kg	138	71.6	25		12/22/15 07:49	56-23-5	
Chlorobenzene	ND	ug/kg	138	52.3	25		12/22/15 07:49	108-90-7	
Chloroethane	ND	ug/kg	275	66.1	25		12/22/15 07:49	75-00-3	
Chloroform	ND	ug/kg	138	44.1	25		12/22/15 07:49	67-66-3	
Chloromethane	ND	ug/kg	275	66.1	25		12/22/15 07:49	74-87-3	
2-Chlorotoluene	ND	ug/kg	138	46.8	25		12/22/15 07:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	138	49.6	25		12/22/15 07:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	138	99.1	25		12/22/15 07:49	96-12-8	
Dibromochloromethane	ND	ug/kg	138	49.6	25		12/22/15 07:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	138	49.6	25		12/22/15 07:49	106-93-4	
Dibromomethane	ND	ug/kg	138	68.9	25		12/22/15 07:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	138	52.3	25		12/22/15 07:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	138	55.1	25		12/22/15 07:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	138	46.8	25		12/22/15 07:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	275	99.1	25		12/22/15 07:49	75-71-8	
1,1-Dichloroethane	ND	ug/kg	138	41.3	25		12/22/15 07:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	138	60.6	25		12/22/15 07:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	138	49.6	25		12/22/15 07:49	75-35-4	
cis-1,2-Dichloroethene	**486**	ug/kg	138	38.6	25		12/22/15 07:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	138	52.3	25		12/22/15 07:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	138	46.8	25		12/22/15 07:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	138	52.3	25		12/22/15 07:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	138	46.8	25		12/22/15 07:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	138	41.3	25		12/22/15 07:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	138	49.6	25		12/22/15 07:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	138	41.3	25		12/22/15 07:49	10061-02-6	
Diisopropyl ether	ND	ug/kg	138	46.8	25		12/22/15 07:49	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	4130	3300	25		12/22/15 07:49	123-91-1	
Ethylbenzene	ND	ug/kg	138	49.6	25		12/22/15 07:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	138	55.1	25		12/22/15 07:49	87-68-3	
2-Hexanone	ND	ug/kg	1380	107	25		12/22/15 07:49	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	138	52.3	25		12/22/15 07:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	138	46.8	25		12/22/15 07:49	99-87-6	
Methylene Chloride	**1170**	ug/kg	551	82.6	25		12/22/15 07:49	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-44A(0-2) **Lab ID: 92280019021** Collected: 12/15/15 09:25 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1380	102	25		12/22/15 07:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	138	41.3	25		12/22/15 07:49	1634-04-4	
Naphthalene	ND	ug/kg	138	33.0	25		12/22/15 07:49	91-20-3	
n-Propylbenzene	ND	ug/kg	138	46.8	25		12/22/15 07:49	103-65-1	
Styrene	ND	ug/kg	138	49.6	25		12/22/15 07:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	138	57.8	25		12/22/15 07:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	138	52.3	25		12/22/15 07:49	79-34-5	
Tetrachloroethene	**50.4J**	ug/kg	138	46.8	25		12/22/15 07:49	127-18-4	
Toluene	ND	ug/kg	138	49.6	25		12/22/15 07:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	138	60.6	25		12/22/15 07:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	138	44.1	25		12/22/15 07:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	138	49.6	25		12/22/15 07:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	138	57.8	25		12/22/15 07:49	79-00-5	
Trichloroethene	**382**	ug/kg	138	57.8	25		12/22/15 07:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	138	60.6	25		12/22/15 07:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	138	44.1	25		12/22/15 07:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	138	55.1	25		12/22/15 07:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	138	49.6	25		12/22/15 07:49	108-67-8	
Vinyl acetate	ND	ug/kg	1380	242	25		12/22/15 07:49	108-05-4	L2
Vinyl chloride	ND	ug/kg	275	49.6	25		12/22/15 07:49	75-01-4	
Xylene (Total)	ND	ug/kg	275	99.1	25		12/22/15 07:49	1330-20-7	
m&p-Xylene	ND	ug/kg	275	99.1	25		12/22/15 07:49	179601-23-1	
o-Xylene	ND	ug/kg	138	52.3	25		12/22/15 07:49	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		25		12/22/15 07:49	2037-26-5	D3
4-Bromofluorobenzene (S)	96	%	70-130		25		12/22/15 07:49	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-132		25		12/22/15 07:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.0**	%	0.10	0.10	1		12/18/15 11:40		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-44A(8-10) **Lab ID: 92280019022** Collected: 12/15/15 09:25 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	98.5	9.9	1		12/22/15 14:46	67-64-1	
Benzene	ND	ug/kg	4.9	1.6	1		12/22/15 14:46	71-43-2	
Bromobenzene	ND	ug/kg	4.9	2.0	1		12/22/15 14:46	108-86-1	
Bromochloromethane	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	74-97-5	
Bromodichloromethane	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	75-27-4	
Bromoform	ND	ug/kg	4.9	2.3	1		12/22/15 14:46	75-25-2	
Bromomethane	ND	ug/kg	9.9	2.5	1		12/22/15 14:46	74-83-9	
2-Butanone (MEK)	ND	ug/kg	98.5	2.9	1		12/22/15 14:46	78-93-3	
n-Butylbenzene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	104-51-8	
sec-Butylbenzene	ND	ug/kg	4.9	1.6	1		12/22/15 14:46	135-98-8	
tert-Butylbenzene	ND	ug/kg	4.9	2.0	1		12/22/15 14:46	98-06-6	
Carbon tetrachloride	ND	ug/kg	4.9	2.6	1		12/22/15 14:46	56-23-5	
Chlorobenzene	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	108-90-7	
Chloroethane	ND	ug/kg	9.9	2.4	1		12/22/15 14:46	75-00-3	
Chloroform	ND	ug/kg	4.9	1.6	1		12/22/15 14:46	67-66-3	
Chloromethane	ND	ug/kg	9.9	2.4	1		12/22/15 14:46	74-87-3	
2-Chlorotoluene	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	95-49-8	
4-Chlorotoluene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.9	3.5	1		12/22/15 14:46	96-12-8	
Dibromochloromethane	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	106-93-4	
Dibromomethane	ND	ug/kg	4.9	2.5	1		12/22/15 14:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	4.9	2.0	1		12/22/15 14:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	9.9	3.5	1		12/22/15 14:46	75-71-8	
1,1-Dichloroethane	ND	ug/kg	4.9	1.5	1		12/22/15 14:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	4.9	2.2	1		12/22/15 14:46	107-06-2	
1,1-Dichloroethene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	75-35-4	
cis-1,2-Dichloroethene	**3.8J**	ug/kg	4.9	1.4	1		12/22/15 14:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	78-87-5	
1,3-Dichloropropane	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	142-28-9	
2,2-Dichloropropane	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	594-20-7	
1,1-Dichloropropene	ND	ug/kg	4.9	1.5	1		12/22/15 14:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	4.9	1.5	1		12/22/15 14:46	10061-02-6	
Diisopropyl ether	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	148	118	1		12/22/15 14:46	123-91-1	
Ethylbenzene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	4.9	2.0	1		12/22/15 14:46	87-68-3	
2-Hexanone	ND	ug/kg	49.3	3.8	1		12/22/15 14:46	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	98-82-8	
p-Isopropyltoluene	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	99-87-6	
Methylene Chloride	**4.3J**	ug/kg	19.7	3.0	1		12/22/15 14:46	75-09-2	C9

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-44A(8-10) **Lab ID: 92280019022** Collected: 12/15/15 09:25 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	49.3	3.6	1		12/22/15 14:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	4.9	1.5	1		12/22/15 14:46	1634-04-4	
Naphthalene	ND	ug/kg	4.9	1.2	1		12/22/15 14:46	91-20-3	
n-Propylbenzene	ND	ug/kg	4.9	1.7	1		12/22/15 14:46	103-65-1	
Styrene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.9	2.1	1		12/22/15 14:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	79-34-5	
Tetrachloroethene	**2.7J**	ug/kg	4.9	1.7	1		12/22/15 14:46	127-18-4	
Toluene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	4.9	2.2	1		12/22/15 14:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	4.9	1.6	1		12/22/15 14:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	4.9	2.1	1		12/22/15 14:46	79-00-5	
Trichloroethene	**6.4**	ug/kg	4.9	2.1	1		12/22/15 14:46	79-01-6	
Trichlorofluoromethane	ND	ug/kg	4.9	2.2	1		12/22/15 14:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	4.9	1.6	1		12/22/15 14:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	4.9	2.0	1		12/22/15 14:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	4.9	1.8	1		12/22/15 14:46	108-67-8	
Vinyl acetate	ND	ug/kg	49.3	8.7	1		12/22/15 14:46	108-05-4	
Vinyl chloride	ND	ug/kg	9.9	1.8	1		12/22/15 14:46	75-01-4	
Xylene (Total)	ND	ug/kg	9.9	3.5	1		12/22/15 14:46	1330-20-7	
m&p-Xylene	ND	ug/kg	9.9	3.5	1		12/22/15 14:46	179601-23-1	
o-Xylene	ND	ug/kg	4.9	1.9	1		12/22/15 14:46	95-47-6	
Surrogates									
Toluene-d8 (S)	101	%	70-130		1		12/22/15 14:46	2037-26-5	
4-Bromofluorobenzene (S)	100	%	70-130		1		12/22/15 14:46	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-132		1		12/22/15 14:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.4**	%	0.10	0.10	1		12/18/15 11:40		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-44A(3-5) **Lab ID: 92280019023** Collected: 12/15/15 09:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
Acetone	ND	ug/kg	120	12.0	1		12/22/15 12:14	67-64-1	
Benzene	ND	ug/kg	6.0	1.9	1		12/22/15 12:14	71-43-2	
Bromobenzene	ND	ug/kg	6.0	2.4	1		12/22/15 12:14	108-86-1	
Bromochloromethane	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	74-97-5	
Bromodichloromethane	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	75-27-4	
Bromoform	ND	ug/kg	6.0	2.8	1		12/22/15 12:14	75-25-2	
Bromomethane	ND	ug/kg	12.0	3.0	1		12/22/15 12:14	74-83-9	
2-Butanone (MEK)	ND	ug/kg	120	3.5	1		12/22/15 12:14	78-93-3	
n-Butylbenzene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.0	1.9	1		12/22/15 12:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.0	2.4	1		12/22/15 12:14	98-06-6	
Carbon tetrachloride	ND	ug/kg	6.0	3.1	1		12/22/15 12:14	56-23-5	
Chlorobenzene	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	108-90-7	
Chloroethane	ND	ug/kg	12.0	2.9	1		12/22/15 12:14	75-00-3	
Chloroform	ND	ug/kg	6.0	1.9	1		12/22/15 12:14	67-66-3	
Chloromethane	ND	ug/kg	12.0	2.9	1		12/22/15 12:14	74-87-3	
2-Chlorotoluene	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.0	4.3	1		12/22/15 12:14	96-12-8	
Dibromochloromethane	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	106-93-4	
Dibromomethane	ND	ug/kg	6.0	3.0	1		12/22/15 12:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.0	2.4	1		12/22/15 12:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	12.0	4.3	1		12/22/15 12:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	6.0	1.8	1		12/22/15 12:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.0	2.6	1		12/22/15 12:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	75-35-4	
cis-1,2-Dichloroethene	**52.8**	ug/kg	6.0	1.7	1		12/22/15 12:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	6.0	1.8	1		12/22/15 12:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.0	1.8	1		12/22/15 12:14	10061-02-6	
Diisopropyl ether	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	108-20-3	
1,4-Dioxane (p-Dioxane)	ND	ug/kg	180	144	1		12/22/15 12:14	123-91-1	
Ethylbenzene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	6.0	2.4	1		12/22/15 12:14	87-68-3	
2-Hexanone	ND	ug/kg	59.8	4.7	1		12/22/15 12:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	99-87-6	
Methylene Chloride	**13.8J**	ug/kg	23.9	3.6	1		12/22/15 12:14	75-09-2	

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: DS-44A(3-5) **Lab ID: 92280019023** Collected: 12/15/15 09:30 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics	Analytical Method: EPA 8260								
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	59.8	4.4	1		12/22/15 12:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.0	1.8	1		12/22/15 12:14	1634-04-4	
Naphthalene	ND	ug/kg	6.0	1.4	1		12/22/15 12:14	91-20-3	
n-Propylbenzene	ND	ug/kg	6.0	2.0	1		12/22/15 12:14	103-65-1	
Styrene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	6.0	2.5	1		12/22/15 12:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	79-34-5	
Tetrachloroethene	**9.9**	ug/kg	6.0	2.0	1		12/22/15 12:14	127-18-4	
Toluene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	6.0	2.6	1		12/22/15 12:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	6.0	1.9	1		12/22/15 12:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.0	2.5	1		12/22/15 12:14	79-00-5	
Trichloroethene	**75.1**	ug/kg	6.0	2.5	1		12/22/15 12:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	6.0	2.6	1		12/22/15 12:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	6.0	1.9	1		12/22/15 12:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	6.0	2.4	1		12/22/15 12:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.0	2.2	1		12/22/15 12:14	108-67-8	
Vinyl acetate	ND	ug/kg	59.8	10.5	1		12/22/15 12:14	108-05-4	
Vinyl chloride	ND	ug/kg	12.0	2.2	1		12/22/15 12:14	75-01-4	
Xylene (Total)	ND	ug/kg	12.0	4.3	1		12/22/15 12:14	1330-20-7	
m&p-Xylene	ND	ug/kg	12.0	4.3	1		12/22/15 12:14	179601-23-1	
o-Xylene	ND	ug/kg	6.0	2.3	1		12/22/15 12:14	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		12/22/15 12:14	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/22/15 12:14	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-132		1		12/22/15 12:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.8**	%	0.10	0.10	1		12/18/15 11:40		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-20C (5.0) **Lab ID: 92280019024** Collected: 12/15/15 09:35 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.0**	%	0.10	0.10	1		12/23/15 15:13		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**7.3**	mg/kg	0.41	0.20	1		12/19/15 13:43	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**2.1**	mg/kg	0.61	0.30	5	12/21/15 14:30	12/22/15 18:47		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-20B (5.0) **Lab ID: 92280019025** Collected: 12/15/15 09:40 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.8**	%	0.10	0.10	1		12/23/15 15:13		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**4.4**	mg/kg	0.45	0.22	1		12/19/15 13:45	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**1.6**	mg/kg	0.59	0.29	5	12/21/15 14:30	12/22/15 18:52		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-46A (15) **Lab ID: 92280019026** Collected: 12/14/15 16:45 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.3**	%	0.10	0.10	1		12/23/15 15:14		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**1.3**	mg/kg	0.43	0.21	1		12/19/15 13:46	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**1.8**	mg/kg	0.60	0.30	5	12/21/15 14:30	12/22/15 18:52		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-46A (20) **Lab ID: 92280019027** Collected: 12/14/15 16:35 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.9**	%	0.10	0.10	1		12/23/15 15:14		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.78**	mg/kg	0.32	0.16	1		12/19/15 13:47	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**3.3**	mg/kg	0.63	0.32	5	12/21/15 14:30	12/22/15 18:54		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-20A (0.5) **Lab ID: 92280019028** Collected: 12/15/15 09:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.7**	%	0.10	0.10	1		12/23/15 15:14		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.29J**	mg/kg	0.36	0.18	1		12/19/15 13:48	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**0.57**	mg/kg	0.56	0.28	5	12/21/15 14:30	12/22/15 18:55		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-20A (5.0) **Lab ID: 92280019029** Collected: 12/15/15 09:50 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.7**	%	0.10	0.10	1		12/23/15 15:14		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.69**	mg/kg	0.37	0.19	1		12/19/15 13:49	57-12-5	R1
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**0.59**	mg/kg	0.58	0.29	5	12/21/15 14:30	12/22/15 18:57		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-20A (10.0) **Lab ID: 92280019030** Collected: 12/15/15 09:55 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.1**	%	0.10	0.10	1		12/23/15 15:14		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/kg	0.30	0.15	1		12/19/15 13:52	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	ND	mg/kg	0.52	0.26	5	12/21/15 14:30	12/22/15 18:57		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-17A (5.0) **Lab ID: 92280019031** Collected: 12/15/15 10:05 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.8**	%	0.10	0.10	1		12/23/15 15:15		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**3.8**	mg/kg	0.43	0.22	1		12/19/15 13:52	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**7.0**	mg/kg	0.61	0.31	5	12/21/15 14:30	12/22/15 18:59		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-17A (10.0) **Lab ID: 92280019032** Collected: 12/15/15 10:05 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.4**	%	0.10	0.10	1		12/23/15 15:15		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.18J**	mg/kg	0.31	0.15	1		12/19/15 13:53	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**1.4**	mg/kg	0.56	0.28	5	12/21/15 14:30	12/22/15 18:59		

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ANALYTICAL RESULTS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Sample: SB-17A (15.0) **Lab ID: 92280019033** Collected: 12/15/15 10:10 Received: 12/16/15 11:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.0**	%	0.10	0.10	1		12/23/15 15:15		
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/kg	0.37	0.19	1		12/19/15 13:56	57-12-5	
9014 Cyanide, Free	Analytical Method: EPA 9014 Free Cyanide Preparation Method: EPA 9013A Free Cyanide EXT								
Cyanide, Free	**1.3**	mg/kg	0.58	0.29	5	12/21/15 14:30	12/22/15 19:02		

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: MSV/34795
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92280019006

METHOD BLANK: 1633889
Matrix: Water
Associated Lab Samples: 92280019006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	12/19/15 11:53	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	12/19/15 11:53	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	12/19/15 11:53	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	12/19/15 11:53	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	12/19/15 11:53	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	12/19/15 11:53	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	12/19/15 11:53	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	12/19/15 11:53	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	12/19/15 11:53	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	12/19/15 11:53	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	12/19/15 11:53	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	12/19/15 11:53	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	12/19/15 11:53	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	12/19/15 11:53	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	12/19/15 11:53	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	12/19/15 11:53	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	12/19/15 11:53	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	12/19/15 11:53	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	12/19/15 11:53	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	12/19/15 11:53	
2-Chlorotoluene	ug/L	ND	1.0	0.35	12/19/15 11:53	
2-Hexanone	ug/L	ND	5.0	0.46	12/19/15 11:53	
4-Chlorotoluene	ug/L	ND	1.0	0.31	12/19/15 11:53	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	12/19/15 11:53	
Acetone	ug/L	ND	25.0	10.0	12/19/15 11:53	
Benzene	ug/L	ND	1.0	0.25	12/19/15 11:53	
Bromobenzene	ug/L	ND	1.0	0.30	12/19/15 11:53	
Bromochloromethane	ug/L	ND	1.0	0.17	12/19/15 11:53	
Bromodichloromethane	ug/L	ND	1.0	0.18	12/19/15 11:53	
Bromoform	ug/L	ND	1.0	0.26	12/19/15 11:53	
Bromomethane	ug/L	ND	2.0	0.29	12/19/15 11:53	
Carbon tetrachloride	ug/L	ND	1.0	0.25	12/19/15 11:53	
Chlorobenzene	ug/L	ND	1.0	0.23	12/19/15 11:53	
Chloroethane	ug/L	ND	1.0	0.54	12/19/15 11:53	
Chloroform	ug/L	ND	1.0	0.14	12/19/15 11:53	
Chloromethane	ug/L	ND	1.0	0.11	12/19/15 11:53	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	12/19/15 11:53	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	12/19/15 11:53	
Dibromochloromethane	ug/L	ND	1.0	0.21	12/19/15 11:53	
Dibromomethane	ug/L	ND	1.0	0.21	12/19/15 11:53	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	12/19/15 11:53	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

METHOD BLANK: 1633889 Matrix: Water
Associated Lab Samples: 92280019006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	12/19/15 11:53	
Ethylbenzene	ug/L	ND	1.0	0.30	12/19/15 11:53	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	12/19/15 11:53	
m&p-Xylene	ug/L	ND	2.0	0.66	12/19/15 11:53	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	12/19/15 11:53	
Methylene Chloride	ug/L	ND	2.0	0.97	12/19/15 11:53	
Naphthalene	ug/L	ND	1.0	0.24	12/19/15 11:53	
o-Xylene	ug/L	ND	1.0	0.23	12/19/15 11:53	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	12/19/15 11:53	
Styrene	ug/L	ND	1.0	0.26	12/19/15 11:53	
Tetrachloroethene	ug/L	ND	1.0	0.46	12/19/15 11:53	
Toluene	ug/L	ND	1.0	0.26	12/19/15 11:53	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	12/19/15 11:53	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	12/19/15 11:53	
Trichloroethene	ug/L	ND	1.0	0.47	12/19/15 11:53	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	12/19/15 11:53	
Vinyl acetate	ug/L	ND	2.0	0.35	12/19/15 11:53	
Vinyl chloride	ug/L	ND	1.0	0.62	12/19/15 11:53	
Xylene (Total)	ug/L	ND	2.0	0.66	12/19/15 11:53	
1,2-Dichloroethane-d4 (S)	%	108	70-130		12/19/15 11:53	
4-Bromofluorobenzene (S)	%	110	70-130		12/19/15 11:53	
Toluene-d8 (S)	%	100	70-130		12/19/15 11:53	

LABORATORY CONTROL SAMPLE: 1633890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.7	97	70-130	
1,1,1-Trichloroethane	ug/L	50	54.0	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	42.5	85	70-130	
1,1,2-Trichloroethane	ug/L	50	46.6	93	70-130	
1,1-Dichloroethane	ug/L	50	45.7	91	70-130	
1,1-Dichloroethene	ug/L	50	49.9	100	70-132	
1,1-Dichloropropene	ug/L	50	49.3	99	70-130	
1,2,3-Trichlorobenzene	ug/L	50	45.7	91	70-135	
1,2,3-Trichloropropane	ug/L	50	47.2	94	70-130	
1,2,4-Trichlorobenzene	ug/L	50	48.0	96	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	46.7	93	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	45.8	92	70-130	
1,2-Dichlorobenzene	ug/L	50	43.9	88	70-130	
1,2-Dichloroethane	ug/L	50	49.6	99	70-130	
1,2-Dichloropropane	ug/L	50	43.9	88	70-130	
1,3-Dichlorobenzene	ug/L	50	45.5	91	70-130	
1,3-Dichloropropane	ug/L	50	41.6	83	70-130	
1,4-Dichlorobenzene	ug/L	50	45.7	91	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1633890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	53.5	107	58-145	
2-Butanone (MEK)	ug/L	100	87.0	87	70-145	
2-Chlorotoluene	ug/L	50	45.0	90	70-130	
2-Hexanone	ug/L	100	90.0	90	70-144	
4-Chlorotoluene	ug/L	50	42.6	85	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	97.8	98	70-140	
Acetone	ug/L	100	106	106	50-175	
Benzene	ug/L	50	45.1	90	70-130	
Bromobenzene	ug/L	50	45.1	90	70-130	
Bromochloromethane	ug/L	50	51.3	103	70-130	
Bromodichloromethane	ug/L	50	49.4	99	70-130	
Bromoform	ug/L	50	49.7	99	70-130	
Bromomethane	ug/L	50	40.9	82	54-130	
Carbon tetrachloride	ug/L	50	58.1	116	70-132	
Chlorobenzene	ug/L	50	44.8	90	70-130	
Chloroethane	ug/L	50	42.9	86	64-134	
Chloroform	ug/L	50	49.9	100	70-130	
Chloromethane	ug/L	50	52.2	104	64-130	
cis-1,2-Dichloroethene	ug/L	50	47.1	94	70-131	
cis-1,3-Dichloropropene	ug/L	50	47.7	95	70-130	
Dibromochloromethane	ug/L	50	50.2	100	70-130	
Dibromomethane	ug/L	50	53.7	107	70-131	
Dichlorodifluoromethane	ug/L	50	47.2	94	56-130	
Diisopropyl ether	ug/L	50	45.9	92	70-130	
Ethylbenzene	ug/L	50	45.9	92	70-130	
Hexachloro-1,3-butadiene	ug/L	50	57.9	116	70-130	
m&p-Xylene	ug/L	100	92.5	92	70-130	
Methyl-tert-butyl ether	ug/L	50	47.2	94	70-130	
Methylene Chloride	ug/L	50	48.6	97	63-130	
Naphthalene	ug/L	50	43.2	86	70-138	
o-Xylene	ug/L	50	44.1	88	70-130	
p-Isopropyltoluene	ug/L	50	45.1	90	70-130	
Styrene	ug/L	50	45.2	90	70-130	
Tetrachloroethene	ug/L	50	48.7	97	70-130	
Toluene	ug/L	50	45.2	90	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.6	95	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.3	101	70-132	
Trichloroethene	ug/L	50	49.1	98	70-130	
Trichlorofluoromethane	ug/L	50	53.2	106	62-133	
Vinyl acetate	ug/L	100	99.6	100	66-157	
Vinyl chloride	ug/L	50	49.1	98	50-150	
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			111	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

MATRIX SPIKE SAMPLE: 1633891

Parameter	Units	92279987001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.6	108	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	25.8	129	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	18.8	94	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.5	107	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.2	106	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.0	120	70-166	
1,1-Dichloropropene	ug/L	ND	20	22.5	112	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	20.4	102	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.2	106	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	21.5	107	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.7	98	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.3	101	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.2	101	70-130	
1,2-Dichloroethane	ug/L	ND	20	23.2	116	70-130	
1,2-Dichloropropane	ug/L	ND	20	20.5	102	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	20.0	100	70-130	
1,3-Dichloropropane	ug/L	ND	20	18.7	94	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	19.5	98	70-130	
2,2-Dichloropropane	ug/L	ND	20	23.3	116	70-130	
2-Butanone (MEK)	ug/L	ND	40	42.7	107	70-130	
2-Chlorotoluene	ug/L	ND	20	18.7	94	70-130	
2-Hexanone	ug/L	ND	40	42.7	107	70-130	
4-Chlorotoluene	ug/L	ND	20	19.7	98	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	45.6	114	70-130	
Acetone	ug/L	ND	40	50.1	125	70-130	
Benzene	ug/L	ND	20	20.3	102	70-148	
Bromobenzene	ug/L	ND	20	19.8	99	70-130	
Bromochloromethane	ug/L	ND	20	20.7	104	70-130	
Bromodichloromethane	ug/L	ND	20	22.2	111	70-130	
Bromoform	ug/L	ND	20	20.0	100	70-130	
Bromomethane	ug/L	ND	20	12.2	61	70-130	M1
Carbon tetrachloride	ug/L	ND	20	27.7	138	70-130	M1
Chlorobenzene	ug/L	ND	20	20.8	104	70-146	
Chloroethane	ug/L	ND	20	23.2	116	70-130	
Chloroform	ug/L	ND	20	23.6	118	70-130	
Chloromethane	ug/L	ND	20	23.2	116	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	21.5	107	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.1	100	70-130	
Dibromochloromethane	ug/L	ND	20	22.2	111	70-130	
Dibromomethane	ug/L	ND	20	24.5	122	70-130	
Dichlorodifluoromethane	ug/L	ND	20	23.0	115	70-130	
Diisopropyl ether	ug/L	2.7	20	24.0	106	70-130	
Ethylbenzene	ug/L	ND	20	20.8	104	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	29.5	148	70-130	M1
m&p-Xylene	ug/L	ND	40	42.0	105	70-130	
Methylene Chloride	ug/L	ND	20	18.7	93	70-130	
Naphthalene	ug/L	ND	20	18.8	94	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

MATRIX SPIKE SAMPLE: 1633891

Parameter	Units	92279987001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
o-Xylene	ug/L	ND	20	20.4	102	70-130	
p-Isopropyltoluene	ug/L	ND	20	18.8	94	70-130	
Styrene	ug/L	ND	20	19.9	100	70-130	
Tetrachloroethene	ug/L	ND	20	22.3	111	70-130	
Toluene	ug/L	ND	20	21.1	106	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	20.9	104	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	21.2	106	70-130	
Trichloroethene	ug/L	ND	20	22.9	115	69-151	
Trichlorofluoromethane	ug/L	ND	20	26.0	130	70-130	
Vinyl acetate	ug/L	ND	40	34.6	86	70-130	
Vinyl chloride	ug/L	ND	20	22.5	112	70-130	
1,2-Dichloroethane-d4 (S)	%				113	70-130	
4-Bromofluorobenzene (S)	%				113	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1633892

Parameter	Units	92279649002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L		ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L		ND		30	
1,1,2-Trichloroethane	ug/L		ND		30	
1,1-Dichloroethane	ug/L	0.00072J mg/L	0.77J		30	
1,1-Dichloroethene	ug/L	0.00078J mg/L	0.76J		30	
1,1-Dichloropropene	ug/L		ND		30	
1,2,3-Trichlorobenzene	ug/L		ND		30	
1,2,3-Trichloropropane	ug/L		ND		30	
1,2,4-Trichlorobenzene	ug/L		ND		30	
1,2-Dibromo-3-chloropropane	ug/L		ND		30	
1,2-Dibromoethane (EDB)	ug/L		ND		30	
1,2-Dichlorobenzene	ug/L		ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L		ND		30	
1,3-Dichlorobenzene	ug/L		ND		30	
1,3-Dichloropropane	ug/L		ND		30	
1,4-Dichlorobenzene	ug/L		ND		30	
2,2-Dichloropropane	ug/L		ND		30	
2-Butanone (MEK)	ug/L		ND		30	
2-Chlorotoluene	ug/L		ND		30	
2-Hexanone	ug/L		ND		30	
4-Chlorotoluene	ug/L		ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L		ND		30	
Acetone	ug/L		ND		30	
Benzene	ug/L		ND		30	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1633892

Parameter	Units	92279649002 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromobenzene	ug/L		ND		30	
Bromochloromethane	ug/L		ND		30	
Bromodichloromethane	ug/L		ND		30	
Bromoform	ug/L		ND		30	
Bromomethane	ug/L		ND		30	
Carbon tetrachloride	ug/L		ND		30	
Chlorobenzene	ug/L		ND		30	
Chloroethane	ug/L		ND		30	
Chloroform	ug/L		1.3	6	30	
Chloromethane	ug/L		ND		30	
cis-1,2-Dichloroethene	ug/L	0.49 mg/L	466	6	30	
cis-1,3-Dichloropropene	ug/L		ND		30	
Dibromochloromethane	ug/L		ND		30	
Dibromomethane	ug/L		ND		30	
Dichlorodifluoromethane	ug/L		ND		30	
Diisopropyl ether	ug/L		ND		30	
Ethylbenzene	ug/L		ND		30	
Hexachloro-1,3-butadiene	ug/L		ND		30	
m&p-Xylene	ug/L		ND		30	
Methyl-tert-butyl ether	ug/L		ND		30	
Methylene Chloride	ug/L		ND		30	
Naphthalene	ug/L		ND		30	
o-Xylene	ug/L		ND		30	
p-Isopropyltoluene	ug/L		ND		30	
Styrene	ug/L		ND		30	
Tetrachloroethene	ug/L	11.8 mg/L	11200	5	30	
Toluene	ug/L		ND		30	
trans-1,2-Dichloroethene	ug/L	0.0014 mg/L	1.5	3	30	
trans-1,3-Dichloropropene	ug/L		ND		30	
Trichloroethene	ug/L	0.27 mg/L	237	12	30	
Trichlorofluoromethane	ug/L		ND		30	
Vinyl acetate	ug/L		ND		30	
Vinyl chloride	ug/L	0.0010 mg/L	1.1	3	30	
Xylene (Total)	ug/L		ND		30	
1,2-Dichloroethane-d4 (S)	%	111	110	1		
4-Bromofluorobenzene (S)	%	113	112	1		
Toluene-d8 (S)	%	98	97	1		

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: MSV/34837 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92280019007, 92280019008, 92280019009, 92280019010, 92280019012, 92280019013

METHOD BLANK: 1634659 Matrix: Solid
Associated Lab Samples: 92280019007, 92280019008, 92280019009, 92280019010, 92280019012, 92280019013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.2	2.2	12/21/15 22:34	
1,1,1-Trichloroethane	ug/kg	ND	5.2	1.9	12/21/15 22:34	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.2	2.0	12/21/15 22:34	
1,1,2-Trichloroethane	ug/kg	ND	5.2	2.2	12/21/15 22:34	
1,1-Dichloroethane	ug/kg	ND	5.2	1.6	12/21/15 22:34	
1,1-Dichloroethene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
1,1-Dichloropropene	ug/kg	ND	5.2	1.6	12/21/15 22:34	
1,2,3-Trichlorobenzene	ug/kg	ND	5.2	2.3	12/21/15 22:34	
1,2,3-Trichloropropane	ug/kg	ND	5.2	1.7	12/21/15 22:34	
1,2,4-Trichlorobenzene	ug/kg	ND	5.2	1.7	12/21/15 22:34	
1,2,4-Trimethylbenzene	ug/kg	ND	5.2	2.1	12/21/15 22:34	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.2	3.7	12/21/15 22:34	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.2	1.9	12/21/15 22:34	
1,2-Dichlorobenzene	ug/kg	ND	5.2	2.0	12/21/15 22:34	
1,2-Dichloroethane	ug/kg	ND	5.2	2.3	12/21/15 22:34	
1,2-Dichloropropane	ug/kg	ND	5.2	1.8	12/21/15 22:34	
1,3,5-Trimethylbenzene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
1,3-Dichlorobenzene	ug/kg	ND	5.2	2.1	12/21/15 22:34	
1,3-Dichloropropane	ug/kg	ND	5.2	2.0	12/21/15 22:34	
1,4-Dichlorobenzene	ug/kg	ND	5.2	1.8	12/21/15 22:34	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	156	125	12/21/15 22:34	
2,2-Dichloropropane	ug/kg	ND	5.2	1.8	12/21/15 22:34	
2-Butanone (MEK)	ug/kg	ND	104	3.0	12/21/15 22:34	
2-Chlorotoluene	ug/kg	ND	5.2	1.8	12/21/15 22:34	
2-Hexanone	ug/kg	ND	52.0	4.1	12/21/15 22:34	
4-Chlorotoluene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	52.0	3.8	12/21/15 22:34	
Acetone	ug/kg	ND	104	10.4	12/21/15 22:34	
Benzene	ug/kg	ND	5.2	1.7	12/21/15 22:34	
Bromobenzene	ug/kg	ND	5.2	2.1	12/21/15 22:34	
Bromochloromethane	ug/kg	ND	5.2	1.8	12/21/15 22:34	
Bromodichloromethane	ug/kg	ND	5.2	2.0	12/21/15 22:34	
Bromoform	ug/kg	ND	5.2	2.4	12/21/15 22:34	
Bromomethane	ug/kg	ND	10.4	2.6	12/21/15 22:34	
Carbon tetrachloride	ug/kg	ND	5.2	2.7	12/21/15 22:34	
Chlorobenzene	ug/kg	ND	5.2	2.0	12/21/15 22:34	
Chloroethane	ug/kg	ND	10.4	2.5	12/21/15 22:34	
Chloroform	ug/kg	ND	5.2	1.7	12/21/15 22:34	
Chloromethane	ug/kg	ND	10.4	2.5	12/21/15 22:34	
cis-1,2-Dichloroethene	ug/kg	ND	5.2	1.5	12/21/15 22:34	
cis-1,3-Dichloropropene	ug/kg	ND	5.2	1.9	12/21/15 22:34	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

METHOD BLANK: 1634659 Matrix: Solid
Associated Lab Samples: 92280019007, 92280019008, 92280019009, 92280019010, 92280019012, 92280019013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.2	1.9	12/21/15 22:34	
Dibromomethane	ug/kg	ND	5.2	2.6	12/21/15 22:34	
Dichlorodifluoromethane	ug/kg	ND	10.4	3.7	12/21/15 22:34	
Diisopropyl ether	ug/kg	ND	5.2	1.8	12/21/15 22:34	
Ethylbenzene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
Hexachloro-1,3-butadiene	ug/kg	ND	5.2	2.1	12/21/15 22:34	
Isopropylbenzene (Cumene)	ug/kg	ND	5.2	2.0	12/21/15 22:34	
m&p-Xylene	ug/kg	ND	10.4	3.7	12/21/15 22:34	
Methyl-tert-butyl ether	ug/kg	ND	5.2	1.6	12/21/15 22:34	
Methylene Chloride	ug/kg	ND	20.8	3.1	12/21/15 22:34	
n-Butylbenzene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
n-Propylbenzene	ug/kg	ND	5.2	1.8	12/21/15 22:34	
Naphthalene	ug/kg	ND	5.2	1.2	12/21/15 22:34	
o-Xylene	ug/kg	ND	5.2	2.0	12/21/15 22:34	
p-Isopropyltoluene	ug/kg	ND	5.2	1.8	12/21/15 22:34	
sec-Butylbenzene	ug/kg	ND	5.2	1.7	12/21/15 22:34	
Styrene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
tert-Butylbenzene	ug/kg	ND	5.2	2.1	12/21/15 22:34	
Tetrachloroethene	ug/kg	ND	5.2	1.8	12/21/15 22:34	
Toluene	ug/kg	ND	5.2	1.9	12/21/15 22:34	
trans-1,2-Dichloroethene	ug/kg	ND	5.2	2.0	12/21/15 22:34	
trans-1,3-Dichloropropene	ug/kg	ND	5.2	1.6	12/21/15 22:34	
Trichloroethene	ug/kg	ND	5.2	2.2	12/21/15 22:34	
Trichlorofluoromethane	ug/kg	ND	5.2	2.3	12/21/15 22:34	
Vinyl acetate	ug/kg	ND	52.0	9.1	12/21/15 22:34	
Vinyl chloride	ug/kg	ND	10.4	1.9	12/21/15 22:34	
Xylene (Total)	ug/kg	ND	10.4	3.7	12/21/15 22:34	
1,2-Dichloroethane-d4 (S)	%	103	70-132		12/21/15 22:34	
4-Bromofluorobenzene (S)	%	96	70-130		12/21/15 22:34	
Toluene-d8 (S)	%	101	70-130		12/21/15 22:34	

LABORATORY CONTROL SAMPLE: 1634660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	49.1	47.4	97	74-137	
1,1,1-Trichloroethane	ug/kg	49.1	48.2	98	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	49.1	45.2	92	72-141	
1,1,2-Trichloroethane	ug/kg	49.1	51.1	104	78-138	
1,1-Dichloroethane	ug/kg	49.1	48.7	99	69-134	
1,1-Dichloroethene	ug/kg	49.1	52.9	108	67-138	
1,1-Dichloropropene	ug/kg	49.1	52.8	108	69-139	
1,2,3-Trichlorobenzene	ug/kg	49.1	46.0	94	70-146	
1,2,3-Trichloropropane	ug/kg	49.1	47.4	96	69-144	
1,2,4-Trichlorobenzene	ug/kg	49.1	43.8	89	68-148	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1634660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	49.1	48.5	99	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	49.1	53.2	108	65-140	
1,2-Dibromoethane (EDB)	ug/kg	49.1	50.9	104	77-135	
1,2-Dichlorobenzene	ug/kg	49.1	47.9	98	77-141	
1,2-Dichloroethane	ug/kg	49.1	48.8	99	65-137	
1,2-Dichloropropane	ug/kg	49.1	49.9	102	72-136	
1,3,5-Trimethylbenzene	ug/kg	49.1	47.5	97	76-133	
1,3-Dichlorobenzene	ug/kg	49.1	47.3	96	74-138	
1,3-Dichloropropane	ug/kg	49.1	47.6	97	71-139	
1,4-Dichlorobenzene	ug/kg	49.1	47.5	97	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	982	1010	102	54-154	
2,2-Dichloropropane	ug/kg	49.1	46.8	95	68-137	
2-Butanone (MEK)	ug/kg	98.2	101	103	58-147	
2-Chlorotoluene	ug/kg	49.1	48.2	98	73-139	
2-Hexanone	ug/kg	98.2	103	105	62-145	
4-Chlorotoluene	ug/kg	49.1	47.1	96	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	98.2	107	109	64-149	
Acetone	ug/kg	98.2	91.9J	94	53-153	
Benzene	ug/kg	49.1	52.8	107	73-135	
Bromobenzene	ug/kg	49.1	47.7	97	75-133	
Bromochloromethane	ug/kg	49.1	57.3	117	73-134	
Bromodichloromethane	ug/kg	49.1	48.5	99	71-135	
Bromoform	ug/kg	49.1	45.8	93	66-141	
Bromomethane	ug/kg	49.1	55.3	113	53-160	
Carbon tetrachloride	ug/kg	49.1	48.4	99	60-145	
Chlorobenzene	ug/kg	49.1	48.3	98	78-130	
Chloroethane	ug/kg	49.1	55.4	113	64-149	
Chloroform	ug/kg	49.1	50.7	103	70-134	
Chloromethane	ug/kg	49.1	50.0	102	52-150	
cis-1,2-Dichloroethene	ug/kg	49.1	49.6	101	70-133	
cis-1,3-Dichloropropene	ug/kg	49.1	48.2	98	68-134	
Dibromochloromethane	ug/kg	49.1	47.9	98	71-138	
Dibromomethane	ug/kg	49.1	51.7	105	74-130	
Dichlorodifluoromethane	ug/kg	49.1	44.0	90	40-160	
Diisopropyl ether	ug/kg	49.1	52.6	107	69-141	
Ethylbenzene	ug/kg	49.1	46.9	96	75-133	
Hexachloro-1,3-butadiene	ug/kg	49.1	44.1	90	68-143	
Isopropylbenzene (Cumene)	ug/kg	49.1	50.5	103	76-143	
m&p-Xylene	ug/kg	98.2	93.8	95	75-136	
Methyl-tert-butyl ether	ug/kg	49.1	53.6	109	68-144	
Methylene Chloride	ug/kg	49.1	56.2	114	45-154	
n-Butylbenzene	ug/kg	49.1	47.4	97	72-137	
n-Propylbenzene	ug/kg	49.1	46.6	95	76-136	
Naphthalene	ug/kg	49.1	51.8	106	68-151	
o-Xylene	ug/kg	49.1	47.3	96	76-141	
p-Isopropyltoluene	ug/kg	49.1	46.8	95	76-140	
sec-Butylbenzene	ug/kg	49.1	49.5	101	79-139	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1634660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	49.1	47.9	97	79-137	
tert-Butylbenzene	ug/kg	49.1	44.1	90	74-143	
Tetrachloroethene	ug/kg	49.1	39.3	80	71-138	
Toluene	ug/kg	49.1	50.1	102	74-131	
trans-1,2-Dichloroethene	ug/kg	49.1	52.8	108	67-135	
trans-1,3-Dichloropropene	ug/kg	49.1	48.0	98	65-146	
Trichloroethene	ug/kg	49.1	51.6	105	67-135	
Trichlorofluoromethane	ug/kg	49.1	54.2	110	59-144	
Vinyl acetate	ug/kg	98.2	65.7	67	40-160	
Vinyl chloride	ug/kg	49.1	56.0	114	56-141	
Xylene (Total)	ug/kg	147	141	96	76-137	
1,2-Dichloroethane-d4 (S)	%			104	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1635304

Parameter	Units	92280012001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	21.1	19.2	92	70-130	
1,1,1-Trichloroethane	ug/kg	ND	21.1	19.9	95	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	21.1	22.7	108	70-130	
1,1,2-Trichloroethane	ug/kg	ND	21.1	22.4	107	70-130	
1,1-Dichloroethane	ug/kg	ND	21.1	21.3	101	70-130	
1,1-Dichloroethene	ug/kg	ND	21.1	20.5	98	49-180	
1,1-Dichloropropene	ug/kg	ND	21.1	21.2	101	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	21.1	18.7	89	70-130	
1,2,3-Trichloropropane	ug/kg	ND	21.1	23.8	114	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	21.1	17.7	84	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	21.1	18.6	88	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	21.1	24.5	117	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	21.1	22.7	108	70-130	
1,2-Dichlorobenzene	ug/kg	ND	21.1	19.5	93	70-130	
1,2-Dichloroethane	ug/kg	ND	21.1	23.7	113	70-130	
1,2-Dichloropropane	ug/kg	ND	21.1	20.1	96	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	21.1	17.9	85	70-130	
1,3-Dichlorobenzene	ug/kg	ND	21.1	18.8	90	70-130	
1,3-Dichloropropane	ug/kg	ND	21.1	21.2	101	70-130	
1,4-Dichlorobenzene	ug/kg	ND	21.1	19.1	91	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	420	548	130	70-130	
2,2-Dichloropropane	ug/kg	ND	21.1	19.5	93	70-130	
2-Butanone (MEK)	ug/kg	ND	42	53.0J	126	70-130	
2-Chlorotoluene	ug/kg	ND	21.1	18.3	87	70-130	
2-Hexanone	ug/kg	ND	42	55.2	131	70-130	M1
4-Chlorotoluene	ug/kg	ND	21.1	18.6	88	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	42	56.8	135	70-130	M1

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

MATRIX SPIKE SAMPLE: 1635304

Parameter	Units	92280012001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	42	51.7J	123	70-130	
Benzene	ug/kg	ND	21.1	19.7	94	50-166	
Bromobenzene	ug/kg	ND	21.1	19.7	94	70-130	
Bromochloromethane	ug/kg	ND	21.1	21.4	102	70-130	
Bromodichloromethane	ug/kg	ND	21.1	20.5	98	70-130	
Bromoform	ug/kg	ND	21.1	20.0	95	70-130	
Bromomethane	ug/kg	ND	21.1	23.1	110	70-130	
Carbon tetrachloride	ug/kg	ND	21.1	18.2	87	70-130	
Chlorobenzene	ug/kg	ND	21.1	18.5	88	43-169	
Chloroethane	ug/kg	ND	21.1	20.6	98	70-130	
Chloroform	ug/kg	ND	21.1	21.4	102	70-130	
Chloromethane	ug/kg	ND	21.1	21.2	101	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	21.1	21.8	104	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	21.1	20.2	96	70-130	
Dibromochloromethane	ug/kg	ND	21.1	20.3	97	70-130	
Dibromomethane	ug/kg	ND	21.1	21.7	103	70-130	
Dichlorodifluoromethane	ug/kg	ND	21.1	17.5	83	70-130	
Diisopropyl ether	ug/kg	ND	21.1	23.8	113	70-130	
Ethylbenzene	ug/kg	ND	21.1	17.7	84	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	21.1	15.6	74	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	21.1	18.8	89	70-130	
m&p-Xylene	ug/kg	ND	42	37.5	89	70-130	
Methyl-tert-butyl ether	ug/kg	ND	21.1	26.0	124	70-130	
Methylene Chloride	ug/kg	ND	21.1	22.9	39	70-130	M1
n-Butylbenzene	ug/kg	ND	21.1	17.1	81	70-130	
n-Propylbenzene	ug/kg	ND	21.1	17.6	84	70-130	
Naphthalene	ug/kg	ND	21.1	21.5	102	70-130	
o-Xylene	ug/kg	ND	21.1	18.3	87	70-130	
p-Isopropyltoluene	ug/kg	ND	21.1	17.4	83	70-130	
sec-Butylbenzene	ug/kg	ND	21.1	18.4	88	70-130	
Styrene	ug/kg	ND	21.1	19.3	92	70-130	
tert-Butylbenzene	ug/kg	ND	21.1	15.5	74	70-130	
Tetrachloroethene	ug/kg	ND	21.1	16.2	77	70-130	
Toluene	ug/kg	ND	21.1	19.3	90	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	21.1	21.3	101	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	21.1	20.7	99	70-130	
Trichloroethene	ug/kg	ND	21.1	18.5	88	49-167	
Trichlorofluoromethane	ug/kg	ND	21.1	19.4	92	70-130	
Vinyl acetate	ug/kg	ND	42	58.5	139	70-130	M1
Vinyl chloride	ug/kg	ND	21.1	21.7	103	70-130	
1,2-Dichloroethane-d4 (S)	%				112	70-132	
4-Bromofluorobenzene (S)	%				103	70-130	
Toluene-d8 (S)	%				103	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1635303

Parameter	Units	92279959001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1635303

Parameter	Units	92279959001 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	ND	ND		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	102	105	0		
4-Bromofluorobenzene (S)	%	94	103	8		
Toluene-d8 (S)	%	102	104	0		

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: MSV/34838 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92280019014, 92280019015, 92280019016, 92280019018, 92280019019, 92280019021

METHOD BLANK: 1634662 Matrix: Solid
Associated Lab Samples: 92280019014, 92280019015, 92280019016, 92280019018, 92280019019, 92280019021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.1	2.2	12/21/15 22:14	
1,1,1-Trichloroethane	ug/kg	ND	5.1	1.8	12/21/15 22:14	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.1	2.0	12/21/15 22:14	
1,1,2-Trichloroethane	ug/kg	ND	5.1	2.2	12/21/15 22:14	
1,1-Dichloroethane	ug/kg	ND	5.1	1.5	12/21/15 22:14	
1,1-Dichloroethene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
1,1-Dichloropropene	ug/kg	ND	5.1	1.5	12/21/15 22:14	
1,2,3-Trichlorobenzene	ug/kg	ND	5.1	2.3	12/21/15 22:14	
1,2,3-Trichloropropane	ug/kg	ND	5.1	1.6	12/21/15 22:14	
1,2,4-Trichlorobenzene	ug/kg	ND	5.1	1.6	12/21/15 22:14	
1,2,4-Trimethylbenzene	ug/kg	ND	5.1	2.1	12/21/15 22:14	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.1	3.7	12/21/15 22:14	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.1	1.8	12/21/15 22:14	
1,2-Dichlorobenzene	ug/kg	ND	5.1	2.0	12/21/15 22:14	
1,2-Dichloroethane	ug/kg	ND	5.1	2.3	12/21/15 22:14	
1,2-Dichloropropane	ug/kg	ND	5.1	1.7	12/21/15 22:14	
1,3,5-Trimethylbenzene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
1,3-Dichlorobenzene	ug/kg	ND	5.1	2.1	12/21/15 22:14	
1,3-Dichloropropane	ug/kg	ND	5.1	2.0	12/21/15 22:14	
1,4-Dichlorobenzene	ug/kg	ND	5.1	1.7	12/21/15 22:14	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	154	123	12/21/15 22:14	
2,2-Dichloropropane	ug/kg	ND	5.1	1.7	12/21/15 22:14	
2-Butanone (MEK)	ug/kg	ND	103	3.0	12/21/15 22:14	
2-Chlorotoluene	ug/kg	ND	5.1	1.7	12/21/15 22:14	
2-Hexanone	ug/kg	ND	51.3	4.0	12/21/15 22:14	
4-Chlorotoluene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	51.3	3.8	12/21/15 22:14	
Acetone	ug/kg	ND	103	10.3	12/21/15 22:14	
Benzene	ug/kg	ND	5.1	1.6	12/21/15 22:14	
Bromobenzene	ug/kg	ND	5.1	2.1	12/21/15 22:14	
Bromochloromethane	ug/kg	ND	5.1	1.7	12/21/15 22:14	
Bromodichloromethane	ug/kg	ND	5.1	2.0	12/21/15 22:14	
Bromoform	ug/kg	ND	5.1	2.4	12/21/15 22:14	
Bromomethane	ug/kg	ND	10.3	2.6	12/21/15 22:14	
Carbon tetrachloride	ug/kg	ND	5.1	2.7	12/21/15 22:14	
Chlorobenzene	ug/kg	ND	5.1	2.0	12/21/15 22:14	
Chloroethane	ug/kg	ND	10.3	2.5	12/21/15 22:14	
Chloroform	ug/kg	ND	5.1	1.6	12/21/15 22:14	
Chloromethane	ug/kg	ND	10.3	2.5	12/21/15 22:14	
cis-1,2-Dichloroethene	ug/kg	ND	5.1	1.4	12/21/15 22:14	
cis-1,3-Dichloropropene	ug/kg	ND	5.1	1.8	12/21/15 22:14	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

METHOD BLANK: 1634662 Matrix: Solid
Associated Lab Samples: 92280019014, 92280019015, 92280019016, 92280019018, 92280019019, 92280019021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.1	1.8	12/21/15 22:14	
Dibromomethane	ug/kg	ND	5.1	2.6	12/21/15 22:14	
Dichlorodifluoromethane	ug/kg	ND	10.3	3.7	12/21/15 22:14	
Diisopropyl ether	ug/kg	ND	5.1	1.7	12/21/15 22:14	
Ethylbenzene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
Hexachloro-1,3-butadiene	ug/kg	ND	5.1	2.1	12/21/15 22:14	
Isopropylbenzene (Cumene)	ug/kg	ND	5.1	2.0	12/21/15 22:14	
m&p-Xylene	ug/kg	ND	10.3	3.7	12/21/15 22:14	
Methyl-tert-butyl ether	ug/kg	ND	5.1	1.5	12/21/15 22:14	
Methylene Chloride	ug/kg	ND	20.5	3.1	12/21/15 22:14	
n-Butylbenzene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
n-Propylbenzene	ug/kg	ND	5.1	1.7	12/21/15 22:14	
Naphthalene	ug/kg	1.7J	5.1	1.2	12/21/15 22:14	
o-Xylene	ug/kg	ND	5.1	2.0	12/21/15 22:14	
p-Isopropyltoluene	ug/kg	ND	5.1	1.7	12/21/15 22:14	
sec-Butylbenzene	ug/kg	ND	5.1	1.6	12/21/15 22:14	
Styrene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
tert-Butylbenzene	ug/kg	ND	5.1	2.1	12/21/15 22:14	
Tetrachloroethene	ug/kg	ND	5.1	1.7	12/21/15 22:14	
Toluene	ug/kg	ND	5.1	1.8	12/21/15 22:14	
trans-1,2-Dichloroethene	ug/kg	ND	5.1	2.0	12/21/15 22:14	
trans-1,3-Dichloropropene	ug/kg	ND	5.1	1.5	12/21/15 22:14	
Trichloroethene	ug/kg	ND	5.1	2.2	12/21/15 22:14	
Trichlorofluoromethane	ug/kg	ND	5.1	2.3	12/21/15 22:14	
Vinyl acetate	ug/kg	ND	51.3	9.0	12/21/15 22:14	
Vinyl chloride	ug/kg	ND	10.3	1.8	12/21/15 22:14	
Xylene (Total)	ug/kg	ND	10.3	3.7	12/21/15 22:14	
1,2-Dichloroethane-d4 (S)	%	97	70-132		12/21/15 22:14	
4-Bromofluorobenzene (S)	%	98	70-130		12/21/15 22:14	
Toluene-d8 (S)	%	100	70-130		12/21/15 22:14	

LABORATORY CONTROL SAMPLE: 1634663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	46.1	44.2	96	74-137	
1,1,1-Trichloroethane	ug/kg	46.1	44.2	96	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	46.1	35.5	77	72-141	
1,1,2-Trichloroethane	ug/kg	46.1	47.9	104	78-138	
1,1-Dichloroethane	ug/kg	46.1	45.3	98	69-134	
1,1-Dichloroethene	ug/kg	46.1	47.7	103	67-138	
1,1-Dichloropropene	ug/kg	46.1	48.2	104	69-139	
1,2,3-Trichlorobenzene	ug/kg	46.1	43.0	93	70-146	
1,2,3-Trichloropropane	ug/kg	46.1	43.4	94	69-144	
1,2,4-Trichlorobenzene	ug/kg	46.1	39.6	86	68-148	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1634663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	46.1	44.2	96	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	46.1	48.5	105	65-140	
1,2-Dibromoethane (EDB)	ug/kg	46.1	48.3	105	77-135	
1,2-Dichlorobenzene	ug/kg	46.1	44.5	96	77-141	
1,2-Dichloroethane	ug/kg	46.1	45.6	99	65-137	
1,2-Dichloropropane	ug/kg	46.1	46.1	100	72-136	
1,3,5-Trimethylbenzene	ug/kg	46.1	43.2	94	76-133	
1,3-Dichlorobenzene	ug/kg	46.1	42.9	93	74-138	
1,3-Dichloropropane	ug/kg	46.1	45.5	99	71-139	
1,4-Dichlorobenzene	ug/kg	46.1	43.9	95	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	923	1000	109	54-154	
2,2-Dichloropropane	ug/kg	46.1	44.1	96	68-137	
2-Butanone (MEK)	ug/kg	92.3	95.4	103	58-147	
2-Chlorotoluene	ug/kg	46.1	43.5	94	73-139	
2-Hexanone	ug/kg	92.3	97.2	105	62-145	
4-Chlorotoluene	ug/kg	46.1	43.1	94	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	92.3	102	110	64-149	
Acetone	ug/kg	92.3	89.8J	97	53-153	
Benzene	ug/kg	46.1	47.3	103	73-135	
Bromobenzene	ug/kg	46.1	43.7	95	75-133	
Bromochloromethane	ug/kg	46.1	50.3	109	73-134	
Bromodichloromethane	ug/kg	46.1	45.1	98	71-135	
Bromoform	ug/kg	46.1	43.8	95	66-141	
Bromomethane	ug/kg	46.1	51.0	111	53-160	
Carbon tetrachloride	ug/kg	46.1	43.9	95	60-145	
Chlorobenzene	ug/kg	46.1	45.8	99	78-130	
Chloroethane	ug/kg	46.1	49.5	107	64-149	
Chloroform	ug/kg	46.1	45.3	98	70-134	
Chloromethane	ug/kg	46.1	45.3	98	52-150	
cis-1,2-Dichloroethene	ug/kg	46.1	45.8	99	70-133	
cis-1,3-Dichloropropene	ug/kg	46.1	45.1	98	68-134	
Dibromochloromethane	ug/kg	46.1	45.4	98	71-138	
Dibromomethane	ug/kg	46.1	48.2	104	74-130	
Dichlorodifluoromethane	ug/kg	46.1	39.9	86	40-160	
Diisopropyl ether	ug/kg	46.1	49.3	107	69-141	
Ethylbenzene	ug/kg	46.1	44.9	97	75-133	
Hexachloro-1,3-butadiene	ug/kg	46.1	41.1	89	68-143	
Isopropylbenzene (Cumene)	ug/kg	46.1	47.9	104	76-143	
m&p-Xylene	ug/kg	92.3	88.7	96	75-136	
Methyl-tert-butyl ether	ug/kg	46.1	50.0	108	68-144	
Methylene Chloride	ug/kg	46.1	52.4	114	45-154	
n-Butylbenzene	ug/kg	46.1	42.9	93	72-137	
n-Propylbenzene	ug/kg	46.1	42.7	93	76-136	
Naphthalene	ug/kg	46.1	47.3	102	68-151	
o-Xylene	ug/kg	46.1	44.3	96	76-141	
p-Isopropyltoluene	ug/kg	46.1	42.9	93	76-140	
sec-Butylbenzene	ug/kg	46.1	45.1	98	79-139	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1634663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	46.1	46.3	100	79-137	
tert-Butylbenzene	ug/kg	46.1	40.1	87	74-143	
Tetrachloroethene	ug/kg	46.1	37.4	81	71-138	
Toluene	ug/kg	46.1	45.7	99	74-131	
trans-1,2-Dichloroethene	ug/kg	46.1	48.6	105	67-135	
trans-1,3-Dichloropropene	ug/kg	46.1	45.9	100	65-146	
Trichloroethene	ug/kg	46.1	53.6	116	67-135	
Trichlorofluoromethane	ug/kg	46.1	46.9	102	59-144	
Vinyl acetate	ug/kg	92.3	29.4J	32	40-160	L0
Vinyl chloride	ug/kg	46.1	50.9	110	56-141	
Xylene (Total)	ug/kg	138	133	96	76-137	
1,2-Dichloroethane-d4 (S)	%			102	70-132	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 1635306

Parameter	Units	92280019016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	23.1	20.2	87	70-130	
1,1,1-Trichloroethane	ug/kg	ND	23.1	23.4	101	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	23.1	20.0	87	70-130	
1,1,2-Trichloroethane	ug/kg	ND	23.1	20.6	89	70-130	
1,1-Dichloroethane	ug/kg	ND	23.1	25.1	106	70-130	
1,1-Dichloroethene	ug/kg	ND	23.1	22.4	97	49-180	
1,1-Dichloropropene	ug/kg	ND	23.1	24.5	106	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	23.1	19.8	86	70-130	
1,2,3-Trichloropropane	ug/kg	ND	23.1	20.5	88	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	23.1	19.4	84	70-130	
1,2,4-Trimethylbenzene	ug/kg	ND	23.1	20.6	89	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	23.1	19.3	83	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	23.1	21.4	93	70-130	
1,2-Dichlorobenzene	ug/kg	ND	23.1	20.2	87	70-130	
1,2-Dichloroethane	ug/kg	ND	23.1	23.5	102	70-130	
1,2-Dichloropropane	ug/kg	ND	23.1	20.4	88	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	23.1	20.5	89	70-130	
1,3-Dichlorobenzene	ug/kg	ND	23.1	20.7	89	70-130	
1,3-Dichloropropane	ug/kg	ND	23.1	19.8	85	70-130	
1,4-Dichlorobenzene	ug/kg	ND	23.1	20.5	88	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	463	389	84	70-130	
2,2-Dichloropropane	ug/kg	ND	23.1	22.7	98	70-130	
2-Butanone (MEK)	ug/kg	ND	46.3	47.9J	104	70-130	
2-Chlorotoluene	ug/kg	ND	23.1	20.8	90	70-130	
2-Hexanone	ug/kg	ND	46.3	39.8J	86	70-130	
4-Chlorotoluene	ug/kg	ND	23.1	20.6	89	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	46.3	42.3J	91	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

MATRIX SPIKE SAMPLE: 1635306

Parameter	Units	92280019016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	ND	46.3	45.4J	98	70-130	
Benzene	ug/kg	ND	23.1	21.0	91	50-166	
Bromobenzene	ug/kg	ND	23.1	20.0	86	70-130	
Bromochloromethane	ug/kg	ND	23.1	22.3	96	70-130	
Bromodichloromethane	ug/kg	ND	23.1	20.6	89	70-130	
Bromoform	ug/kg	ND	23.1	17.6	76	70-130	
Bromomethane	ug/kg	ND	23.1	30.9	133	70-130	M1
Carbon tetrachloride	ug/kg	ND	23.1	21.3	92	70-130	
Chlorobenzene	ug/kg	ND	23.1	20.5	89	43-169	
Chloroethane	ug/kg	ND	23.1	25.6	111	70-130	
Chloroform	ug/kg	ND	23.1	23.9	103	70-130	
Chloromethane	ug/kg	ND	23.1	24.7	107	70-130	
cis-1,2-Dichloroethene	ug/kg	3.8J	23.1	26.3	97	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	23.1	19.9	86	70-130	
Dibromochloromethane	ug/kg	ND	23.1	19.3	83	70-130	
Dibromomethane	ug/kg	ND	23.1	21.2	92	70-130	
Dichlorodifluoromethane	ug/kg	ND	23.1	20.4	88	70-130	
Diisopropyl ether	ug/kg	ND	23.1	22.9	99	70-130	
Ethylbenzene	ug/kg	ND	23.1	20.7	90	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	23.1	19.7	85	70-130	
Isopropylbenzene (Cumene)	ug/kg	ND	23.1	22.4	97	70-130	
m&p-Xylene	ug/kg	ND	46.3	42.0	91	70-130	
Methyl-tert-butyl ether	ug/kg	ND	23.1	22.8	99	70-130	
Methylene Chloride	ug/kg	19.2J	23.1	32.7	58	70-130	M1
n-Butylbenzene	ug/kg	ND	23.1	19.8	86	70-130	
n-Propylbenzene	ug/kg	ND	23.1	19.9	86	70-130	
Naphthalene	ug/kg	ND	23.1	19.0	82	70-130	
o-Xylene	ug/kg	ND	23.1	20.4	88	70-130	
p-Isopropyltoluene	ug/kg	ND	23.1	19.8	86	70-130	
sec-Butylbenzene	ug/kg	ND	23.1	21.3	92	70-130	
Styrene	ug/kg	ND	23.1	21.1	91	70-130	
tert-Butylbenzene	ug/kg	ND	23.1	17.5	76	70-130	
Tetrachloroethene	ug/kg	ND	23.1	19.2	83	70-130	
Toluene	ug/kg	ND	23.1	21.1	90	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	23.1	22.8	98	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	23.1	19.9	86	70-130	
Trichloroethene	ug/kg	ND	23.1	20.1	87	49-167	
Trichlorofluoromethane	ug/kg	ND	23.1	23.2	100	70-130	
Vinyl acetate	ug/kg	ND	46.3	54.1J	117	70-130	
Vinyl chloride	ug/kg	ND	23.1	24.8	107	70-130	
1,2-Dichloroethane-d4 (S)	%				112	70-132	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				100	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1635305

Parameter	Units	92280019015 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	18.6J	15.1J		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	3.9J	6.0J		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1635305

Parameter	Units	92280019015 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	22.5J	9.0J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	110	111	12		
4-Bromofluorobenzene (S)	%	96	101	17		
Toluene-d8 (S)	%	99	101	13		

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: MSV/34861 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92280019017, 92280019023

METHOD BLANK: 1635236 Matrix: Solid
Associated Lab Samples: 92280019017, 92280019023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.3	2.2	12/22/15 10:35	
1,1,1-Trichloroethane	ug/kg	ND	5.3	1.9	12/22/15 10:35	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.3	2.0	12/22/15 10:35	
1,1,2-Trichloroethane	ug/kg	ND	5.3	2.2	12/22/15 10:35	
1,1-Dichloroethane	ug/kg	ND	5.3	1.6	12/22/15 10:35	
1,1-Dichloroethene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
1,1-Dichloropropene	ug/kg	ND	5.3	1.6	12/22/15 10:35	
1,2,3-Trichlorobenzene	ug/kg	ND	5.3	2.3	12/22/15 10:35	
1,2,3-Trichloropropane	ug/kg	ND	5.3	1.7	12/22/15 10:35	
1,2,4-Trichlorobenzene	ug/kg	ND	5.3	1.7	12/22/15 10:35	
1,2,4-Trimethylbenzene	ug/kg	ND	5.3	2.1	12/22/15 10:35	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.3	3.8	12/22/15 10:35	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.3	1.9	12/22/15 10:35	
1,2-Dichlorobenzene	ug/kg	ND	5.3	2.0	12/22/15 10:35	
1,2-Dichloroethane	ug/kg	ND	5.3	2.3	12/22/15 10:35	
1,2-Dichloropropane	ug/kg	ND	5.3	1.8	12/22/15 10:35	
1,3,5-Trimethylbenzene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
1,3-Dichlorobenzene	ug/kg	ND	5.3	2.1	12/22/15 10:35	
1,3-Dichloropropane	ug/kg	ND	5.3	2.0	12/22/15 10:35	
1,4-Dichlorobenzene	ug/kg	ND	5.3	1.8	12/22/15 10:35	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	160	128	12/22/15 10:35	
2,2-Dichloropropane	ug/kg	ND	5.3	1.8	12/22/15 10:35	
2-Butanone (MEK)	ug/kg	ND	107	3.1	12/22/15 10:35	
2-Chlorotoluene	ug/kg	ND	5.3	1.8	12/22/15 10:35	
2-Hexanone	ug/kg	ND	53.3	4.2	12/22/15 10:35	
4-Chlorotoluene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	53.3	3.9	12/22/15 10:35	
Acetone	ug/kg	ND	107	10.7	12/22/15 10:35	
Benzene	ug/kg	ND	5.3	1.7	12/22/15 10:35	
Bromobenzene	ug/kg	ND	5.3	2.1	12/22/15 10:35	
Bromochloromethane	ug/kg	ND	5.3	1.8	12/22/15 10:35	
Bromodichloromethane	ug/kg	ND	5.3	2.0	12/22/15 10:35	
Bromoform	ug/kg	ND	5.3	2.5	12/22/15 10:35	
Bromomethane	ug/kg	ND	10.7	2.7	12/22/15 10:35	
Carbon tetrachloride	ug/kg	ND	5.3	2.8	12/22/15 10:35	
Chlorobenzene	ug/kg	ND	5.3	2.0	12/22/15 10:35	
Chloroethane	ug/kg	ND	10.7	2.6	12/22/15 10:35	
Chloroform	ug/kg	ND	5.3	1.7	12/22/15 10:35	
Chloromethane	ug/kg	ND	10.7	2.6	12/22/15 10:35	
cis-1,2-Dichloroethene	ug/kg	ND	5.3	1.5	12/22/15 10:35	
cis-1,3-Dichloropropene	ug/kg	ND	5.3	1.9	12/22/15 10:35	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

METHOD BLANK: 1635236 Matrix: Solid
Associated Lab Samples: 92280019017, 92280019023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.3	1.9	12/22/15 10:35	
Dibromomethane	ug/kg	ND	5.3	2.7	12/22/15 10:35	
Dichlorodifluoromethane	ug/kg	ND	10.7	3.8	12/22/15 10:35	
Diisopropyl ether	ug/kg	ND	5.3	1.8	12/22/15 10:35	
Ethylbenzene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
Hexachloro-1,3-butadiene	ug/kg	ND	5.3	2.1	12/22/15 10:35	
Isopropylbenzene (Cumene)	ug/kg	ND	5.3	2.0	12/22/15 10:35	
m&p-Xylene	ug/kg	ND	10.7	3.8	12/22/15 10:35	
Methyl-tert-butyl ether	ug/kg	ND	5.3	1.6	12/22/15 10:35	
Methylene Chloride	ug/kg	ND	21.3	3.2	12/22/15 10:35	
n-Butylbenzene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
n-Propylbenzene	ug/kg	ND	5.3	1.8	12/22/15 10:35	
Naphthalene	ug/kg	1.7J	5.3	1.3	12/22/15 10:35	
o-Xylene	ug/kg	ND	5.3	2.0	12/22/15 10:35	
p-Isopropyltoluene	ug/kg	ND	5.3	1.8	12/22/15 10:35	
sec-Butylbenzene	ug/kg	ND	5.3	1.7	12/22/15 10:35	
Styrene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
tert-Butylbenzene	ug/kg	ND	5.3	2.1	12/22/15 10:35	
Tetrachloroethene	ug/kg	ND	5.3	1.8	12/22/15 10:35	
Toluene	ug/kg	ND	5.3	1.9	12/22/15 10:35	
trans-1,2-Dichloroethene	ug/kg	ND	5.3	2.0	12/22/15 10:35	
trans-1,3-Dichloropropene	ug/kg	ND	5.3	1.6	12/22/15 10:35	
Trichloroethene	ug/kg	ND	5.3	2.2	12/22/15 10:35	
Trichlorofluoromethane	ug/kg	ND	5.3	2.3	12/22/15 10:35	
Vinyl acetate	ug/kg	ND	53.3	9.4	12/22/15 10:35	
Vinyl chloride	ug/kg	ND	10.7	1.9	12/22/15 10:35	
Xylene (Total)	ug/kg	ND	10.7	3.8	12/22/15 10:35	
1,2-Dichloroethane-d4 (S)	%	103	70-132		12/22/15 10:35	
4-Bromofluorobenzene (S)	%	97	70-130		12/22/15 10:35	
Toluene-d8 (S)	%	101	70-130		12/22/15 10:35	

LABORATORY CONTROL SAMPLE: 1635237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	55.9	51.6	92	74-137	
1,1,1-Trichloroethane	ug/kg	55.9	53.5	96	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	55.9	52.5	94	72-141	
1,1,2-Trichloroethane	ug/kg	55.9	53.8	96	78-138	
1,1-Dichloroethane	ug/kg	55.9	52.7	94	69-134	
1,1-Dichloroethene	ug/kg	55.9	58.7	105	67-138	
1,1-Dichloropropene	ug/kg	55.9	58.2	104	69-139	
1,2,3-Trichlorobenzene	ug/kg	55.9	55.3	99	70-146	
1,2,3-Trichloropropane	ug/kg	55.9	51.2	91	69-144	
1,2,4-Trichlorobenzene	ug/kg	55.9	53.4	96	68-148	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1635237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	55.9	55.7	100	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	55.9	58.8	105	65-140	
1,2-Dibromoethane (EDB)	ug/kg	55.9	53.3	95	77-135	
1,2-Dichlorobenzene	ug/kg	55.9	55.4	99	77-141	
1,2-Dichloroethane	ug/kg	55.9	53.6	96	65-137	
1,2-Dichloropropane	ug/kg	55.9	54.2	97	72-136	
1,3,5-Trimethylbenzene	ug/kg	55.9	54.6	98	76-133	
1,3-Dichlorobenzene	ug/kg	55.9	56.6	101	74-138	
1,3-Dichloropropane	ug/kg	55.9	53.2	95	71-139	
1,4-Dichlorobenzene	ug/kg	55.9	54.7	98	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1120	1040	93	54-154	
2,2-Dichloropropane	ug/kg	55.9	54.0	97	68-137	
2-Butanone (MEK)	ug/kg	112	110J	98	58-147	
2-Chlorotoluene	ug/kg	55.9	56.1	100	73-139	
2-Hexanone	ug/kg	112	110	98	62-145	
4-Chlorotoluene	ug/kg	55.9	55.4	99	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	112	118	105	64-149	
Acetone	ug/kg	112	108J	97	53-153	
Benzene	ug/kg	55.9	56.0	100	73-135	
Bromobenzene	ug/kg	55.9	54.9	98	75-133	
Bromochloromethane	ug/kg	55.9	55.4	99	73-134	
Bromodichloromethane	ug/kg	55.9	53.0	95	71-135	
Bromoform	ug/kg	55.9	49.5	88	66-141	
Bromomethane	ug/kg	55.9	58.7	105	53-160	
Carbon tetrachloride	ug/kg	55.9	52.4	94	60-145	
Chlorobenzene	ug/kg	55.9	53.1	95	78-130	
Chloroethane	ug/kg	55.9	60.0	107	64-149	
Chloroform	ug/kg	55.9	56.5	101	70-134	
Chloromethane	ug/kg	55.9	57.8	103	52-150	
cis-1,2-Dichloroethene	ug/kg	55.9	57.6	103	70-133	
cis-1,3-Dichloropropene	ug/kg	55.9	53.0	95	68-134	
Dibromochloromethane	ug/kg	55.9	53.0	95	71-138	
Dibromomethane	ug/kg	55.9	54.5	97	74-130	
Dichlorodifluoromethane	ug/kg	55.9	53.4	95	40-160	
Diisopropyl ether	ug/kg	55.9	59.2	106	69-141	
Ethylbenzene	ug/kg	55.9	52.9	95	75-133	
Hexachloro-1,3-butadiene	ug/kg	55.9	52.7	94	68-143	
Isopropylbenzene (Cumene)	ug/kg	55.9	56.6	101	76-143	
m&p-Xylene	ug/kg	112	105	94	75-136	
Methyl-tert-butyl ether	ug/kg	55.9	56.1	100	68-144	
Methylene Chloride	ug/kg	55.9	60.6	108	45-154	
n-Butylbenzene	ug/kg	55.9	57.3	102	72-137	
n-Propylbenzene	ug/kg	55.9	54.0	97	76-136	
Naphthalene	ug/kg	55.9	58.6	105	68-151	
o-Xylene	ug/kg	55.9	52.4	94	76-141	
p-Isopropyltoluene	ug/kg	55.9	54.7	98	76-140	
sec-Butylbenzene	ug/kg	55.9	57.6	103	79-139	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1635237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	55.9	54.4	97	79-137	
tert-Butylbenzene	ug/kg	55.9	49.9	89	74-143	
Tetrachloroethene	ug/kg	55.9	43.7	78	71-138	
Toluene	ug/kg	55.9	53.7	96	74-131	
trans-1,2-Dichloroethene	ug/kg	55.9	59.0	105	67-135	
trans-1,3-Dichloropropene	ug/kg	55.9	52.6	94	65-146	
Trichloroethene	ug/kg	55.9	54.0	97	67-135	
Trichlorofluoromethane	ug/kg	55.9	56.8	102	59-144	
Vinyl acetate	ug/kg	112	118	106	40-160	
Vinyl chloride	ug/kg	55.9	63.4	113	56-141	
Xylene (Total)	ug/kg	168	158	94	76-137	
1,2-Dichloroethane-d4 (S)	%			101	70-132	
4-Bromofluorobenzene (S)	%			92	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1636222

Parameter	Units	92280058002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	20.4	19.7	97	70-130	
1,1,1-Trichloroethane	ug/kg	ND	20.4	23.9	117	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	ND	20.4	20.9	103	70-130	
1,1,2-Trichloroethane	ug/kg	ND	20.4	21.3	104	70-130	
1,1-Dichloroethane	ug/kg	ND	20.4	23.6	116	70-130	
1,1-Dichloroethene	ug/kg	ND	20.4	25.6	126	49-180	
1,1-Dichloropropene	ug/kg	ND	20.4	24.4	120	70-130	
1,2,3-Trichlorobenzene	ug/kg	ND	20.4	9.3	45	70-130	M1
1,2,3-Trichloropropane	ug/kg	ND	20.4	18.6	91	70-130	
1,2,4-Trichlorobenzene	ug/kg	ND	20.4	9.6	47	70-130	M1
1,2,4-Trimethylbenzene	ug/kg	ND	20.4	20.2	99	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	ND	20.4	23.2	114	70-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	20.4	22.0	108	70-130	
1,2-Dichlorobenzene	ug/kg	ND	20.4	17.8	87	70-130	
1,2-Dichloroethane	ug/kg	ND	20.4	25.0	122	70-130	
1,2-Dichloropropane	ug/kg	ND	20.4	22.5	110	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	20.4	20.3	100	70-130	
1,3-Dichlorobenzene	ug/kg	ND	20.4	17.4	85	70-130	
1,3-Dichloropropane	ug/kg	ND	20.4	21.2	104	70-130	
1,4-Dichlorobenzene	ug/kg	ND	20.4	17.3	85	70-130	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	408	227	56	70-130	M1
2,2-Dichloropropane	ug/kg	ND	20.4	22.9	112	70-130	
2-Butanone (MEK)	ug/kg	ND	40.8	56.6J	139	70-130	M1
2-Chlorotoluene	ug/kg	ND	20.4	20.7	102	70-130	
2-Hexanone	ug/kg	ND	40.8	44.2J	108	70-130	
4-Chlorotoluene	ug/kg	ND	20.4	20.3	100	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	40.8	52.6	129	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

MATRIX SPIKE SAMPLE: 1636222

Parameter	Units	92280058002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Acetone	ug/kg	25.9J	40.8	68.2J	104	70-130	
Benzene	ug/kg	ND	20.4	22.4	110	50-166	
Bromobenzene	ug/kg	ND	20.4	20.8	102	70-130	
Bromochloromethane	ug/kg	ND	20.4	21.6	106	70-130	
Bromodichloromethane	ug/kg	ND	20.4	21.4	105	70-130	
Bromoform	ug/kg	ND	20.4	18.0	88	70-130	
Bromomethane	ug/kg	ND	20.4	24.6	120	70-130	
Carbon tetrachloride	ug/kg	ND	20.4	23.4	115	70-130	
Chlorobenzene	ug/kg	ND	20.4	19.6	96	43-169	
Chloroethane	ug/kg	ND	20.4	24.0	118	70-130	
Chloroform	ug/kg	ND	20.4	24.8	122	70-130	
Chloromethane	ug/kg	ND	20.4	25.2	123	70-130	
cis-1,2-Dichloroethene	ug/kg	ND	20.4	25.2	124	70-130	
cis-1,3-Dichloropropene	ug/kg	ND	20.4	21.6	106	70-130	
Dibromochloromethane	ug/kg	ND	20.4	20.4	100	70-130	
Dibromomethane	ug/kg	ND	20.4	22.7	111	70-130	
Dichlorodifluoromethane	ug/kg	ND	20.4	20.0	98	70-130	
Diisopropyl ether	ug/kg	ND	20.4	26.8	132	70-130	M1
Ethylbenzene	ug/kg	ND	20.4	20.5	101	70-130	
Hexachloro-1,3-butadiene	ug/kg	ND	20.4	10.2	50	70-130	M1
Isopropylbenzene (Cumene)	ug/kg	ND	20.4	21.6	106	70-130	
m&p-Xylene	ug/kg	ND	40.8	41.0	101	70-130	
Methyl-tert-butyl ether	ug/kg	ND	20.4	23.5	115	70-130	
Methylene Chloride	ug/kg	17.4J	20.4	60.6	212	70-130	M1
n-Butylbenzene	ug/kg	ND	20.4	17.8	87	70-130	
n-Propylbenzene	ug/kg	ND	20.4	21.2	104	70-130	
Naphthalene	ug/kg	ND	20.4	13.5	66	70-130	M1
o-Xylene	ug/kg	ND	20.4	19.6	96	70-130	
p-Isopropyltoluene	ug/kg	ND	20.4	19.3	94	70-130	
sec-Butylbenzene	ug/kg	ND	20.4	20.9	102	70-130	
Styrene	ug/kg	ND	20.4	18.5	91	70-130	
tert-Butylbenzene	ug/kg	ND	20.4	19.2	94	70-130	
Tetrachloroethene	ug/kg	ND	20.4	16.8	82	70-130	
Toluene	ug/kg	ND	20.4	21.5	105	52-163	
trans-1,2-Dichloroethene	ug/kg	ND	20.4	25.5	125	70-130	
trans-1,3-Dichloropropene	ug/kg	ND	20.4	20.7	101	70-130	
Trichloroethene	ug/kg	ND	20.4	21.4	105	49-167	
Trichlorofluoromethane	ug/kg	ND	20.4	19.0	93	70-130	
Vinyl acetate	ug/kg	ND	40.8	11.6J	28	70-130	M1
Vinyl chloride	ug/kg	ND	20.4	26.1	128	70-130	
1,2-Dichloroethane-d4 (S)	%				122	70-132	
4-Bromofluorobenzene (S)	%				90	70-130	
Toluene-d8 (S)	%				99	70-130	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1636221

Parameter	Units	92280058001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,1-Trichloroethane	ug/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		30	
1,1,2-Trichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethane	ug/kg	ND	ND		30	
1,1-Dichloroethene	ug/kg	ND	ND		30	
1,1-Dichloropropene	ug/kg	ND	ND		30	
1,2,3-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,3-Trichloropropane	ug/kg	ND	ND		30	
1,2,4-Trichlorobenzene	ug/kg	ND	ND		30	
1,2,4-Trimethylbenzene	ug/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		30	
1,2-Dichlorobenzene	ug/kg	ND	ND		30	
1,2-Dichloroethane	ug/kg	ND	ND		30	
1,2-Dichloropropane	ug/kg	ND	ND		30	
1,3,5-Trimethylbenzene	ug/kg	ND	ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,3-Dichloropropane	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	ND		30	
2,2-Dichloropropane	ug/kg	ND	ND		30	
2-Butanone (MEK)	ug/kg	ND	ND		30	
2-Chlorotoluene	ug/kg	ND	ND		30	
2-Hexanone	ug/kg	ND	ND		30	
4-Chlorotoluene	ug/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		30	
Acetone	ug/kg	ND	ND		30	
Benzene	ug/kg	ND	ND		30	
Bromobenzene	ug/kg	ND	ND		30	
Bromochloromethane	ug/kg	ND	ND		30	
Bromodichloromethane	ug/kg	ND	ND		30	
Bromoform	ug/kg	ND	ND		30	
Bromomethane	ug/kg	ND	ND		30	
Carbon tetrachloride	ug/kg	ND	ND		30	
Chlorobenzene	ug/kg	ND	ND		30	
Chloroethane	ug/kg	ND	ND		30	
Chloroform	ug/kg	ND	ND		30	
Chloromethane	ug/kg	ND	ND		30	
cis-1,2-Dichloroethene	ug/kg	ND	ND		30	
cis-1,3-Dichloropropene	ug/kg	ND	ND		30	
Dibromochloromethane	ug/kg	ND	ND		30	
Dibromomethane	ug/kg	ND	ND		30	
Dichlorodifluoromethane	ug/kg	ND	ND		30	
Diisopropyl ether	ug/kg	ND	ND		30	
Ethylbenzene	ug/kg	ND	ND		30	
Hexachloro-1,3-butadiene	ug/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

SAMPLE DUPLICATE: 1636221

Parameter	Units	92280058001 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/kg	ND	ND		30	
m&p-Xylene	ug/kg	ND	ND		30	
Methyl-tert-butyl ether	ug/kg	ND	ND		30	
Methylene Chloride	ug/kg	12.6J	18.5J		30	
n-Butylbenzene	ug/kg	ND	ND		30	
n-Propylbenzene	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	ND	ND		30	
p-Isopropyltoluene	ug/kg	ND	ND		30	
sec-Butylbenzene	ug/kg	ND	ND		30	
Styrene	ug/kg	ND	ND		30	
tert-Butylbenzene	ug/kg	ND	ND		30	
Tetrachloroethene	ug/kg	ND	ND		30	
Toluene	ug/kg	ND	ND		30	
trans-1,2-Dichloroethene	ug/kg	ND	ND		30	
trans-1,3-Dichloropropene	ug/kg	ND	ND		30	
Trichloroethene	ug/kg	ND	ND		30	
Trichlorofluoromethane	ug/kg	ND	ND		30	
Vinyl acetate	ug/kg	ND	ND		30	
Vinyl chloride	ug/kg	ND	ND		30	
Xylene (Total)	ug/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	103	127	32		
4-Bromofluorobenzene (S)	%	88	89	12		
Toluene-d8 (S)	%	99	102	14		1g

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: MSV/34868 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92280019011, 92280019020, 92280019022

METHOD BLANK: 1635393 Matrix: Solid
Associated Lab Samples: 92280019011, 92280019020, 92280019022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.3	2.2	12/22/15 12:28	
1,1,1-Trichloroethane	ug/kg	ND	5.3	1.9	12/22/15 12:28	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.3	2.0	12/22/15 12:28	
1,1,2-Trichloroethane	ug/kg	ND	5.3	2.2	12/22/15 12:28	
1,1-Dichloroethane	ug/kg	ND	5.3	1.6	12/22/15 12:28	
1,1-Dichloroethene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
1,1-Dichloropropene	ug/kg	ND	5.3	1.6	12/22/15 12:28	
1,2,3-Trichlorobenzene	ug/kg	ND	5.3	2.3	12/22/15 12:28	
1,2,3-Trichloropropane	ug/kg	ND	5.3	1.7	12/22/15 12:28	
1,2,4-Trichlorobenzene	ug/kg	ND	5.3	1.7	12/22/15 12:28	
1,2,4-Trimethylbenzene	ug/kg	ND	5.3	2.1	12/22/15 12:28	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.3	3.8	12/22/15 12:28	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.3	1.9	12/22/15 12:28	
1,2-Dichlorobenzene	ug/kg	ND	5.3	2.0	12/22/15 12:28	
1,2-Dichloroethane	ug/kg	ND	5.3	2.3	12/22/15 12:28	
1,2-Dichloropropane	ug/kg	ND	5.3	1.8	12/22/15 12:28	
1,3,5-Trimethylbenzene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
1,3-Dichlorobenzene	ug/kg	ND	5.3	2.1	12/22/15 12:28	
1,3-Dichloropropane	ug/kg	ND	5.3	2.0	12/22/15 12:28	
1,4-Dichlorobenzene	ug/kg	ND	5.3	1.8	12/22/15 12:28	
1,4-Dioxane (p-Dioxane)	ug/kg	ND	158	126	12/22/15 12:28	
2,2-Dichloropropane	ug/kg	ND	5.3	1.8	12/22/15 12:28	
2-Butanone (MEK)	ug/kg	ND	105	3.0	12/22/15 12:28	
2-Chlorotoluene	ug/kg	ND	5.3	1.8	12/22/15 12:28	
2-Hexanone	ug/kg	ND	52.5	4.1	12/22/15 12:28	
4-Chlorotoluene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	52.5	3.9	12/22/15 12:28	
Acetone	ug/kg	ND	105	10.5	12/22/15 12:28	
Benzene	ug/kg	ND	5.3	1.7	12/22/15 12:28	
Bromobenzene	ug/kg	ND	5.3	2.1	12/22/15 12:28	
Bromochloromethane	ug/kg	ND	5.3	1.8	12/22/15 12:28	
Bromodichloromethane	ug/kg	ND	5.3	2.0	12/22/15 12:28	
Bromoform	ug/kg	ND	5.3	2.4	12/22/15 12:28	
Bromomethane	ug/kg	ND	10.5	2.6	12/22/15 12:28	
Carbon tetrachloride	ug/kg	ND	5.3	2.7	12/22/15 12:28	
Chlorobenzene	ug/kg	ND	5.3	2.0	12/22/15 12:28	
Chloroethane	ug/kg	ND	10.5	2.5	12/22/15 12:28	
Chloroform	ug/kg	ND	5.3	1.7	12/22/15 12:28	
Chloromethane	ug/kg	ND	10.5	2.5	12/22/15 12:28	
cis-1,2-Dichloroethene	ug/kg	ND	5.3	1.5	12/22/15 12:28	
cis-1,3-Dichloropropene	ug/kg	ND	5.3	1.9	12/22/15 12:28	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

METHOD BLANK: 1635393 Matrix: Solid
Associated Lab Samples: 92280019011, 92280019020, 92280019022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.3	1.9	12/22/15 12:28	
Dibromomethane	ug/kg	ND	5.3	2.6	12/22/15 12:28	
Dichlorodifluoromethane	ug/kg	ND	10.5	3.8	12/22/15 12:28	
Diisopropyl ether	ug/kg	ND	5.3	1.8	12/22/15 12:28	
Ethylbenzene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
Hexachloro-1,3-butadiene	ug/kg	ND	5.3	2.1	12/22/15 12:28	
Isopropylbenzene (Cumene)	ug/kg	ND	5.3	2.0	12/22/15 12:28	
m&p-Xylene	ug/kg	ND	10.5	3.8	12/22/15 12:28	
Methyl-tert-butyl ether	ug/kg	ND	5.3	1.6	12/22/15 12:28	
Methylene Chloride	ug/kg	ND	21.0	3.2	12/22/15 12:28	
n-Butylbenzene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
n-Propylbenzene	ug/kg	ND	5.3	1.8	12/22/15 12:28	
Naphthalene	ug/kg	ND	5.3	1.3	12/22/15 12:28	
o-Xylene	ug/kg	ND	5.3	2.0	12/22/15 12:28	
p-Isopropyltoluene	ug/kg	ND	5.3	1.8	12/22/15 12:28	
sec-Butylbenzene	ug/kg	ND	5.3	1.7	12/22/15 12:28	
Styrene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
tert-Butylbenzene	ug/kg	ND	5.3	2.1	12/22/15 12:28	
Tetrachloroethene	ug/kg	ND	5.3	1.8	12/22/15 12:28	
Toluene	ug/kg	ND	5.3	1.9	12/22/15 12:28	
trans-1,2-Dichloroethene	ug/kg	ND	5.3	2.0	12/22/15 12:28	
trans-1,3-Dichloropropene	ug/kg	ND	5.3	1.6	12/22/15 12:28	
Trichloroethene	ug/kg	ND	5.3	2.2	12/22/15 12:28	
Trichlorofluoromethane	ug/kg	ND	5.3	2.3	12/22/15 12:28	
Vinyl acetate	ug/kg	ND	52.5	9.2	12/22/15 12:28	
Vinyl chloride	ug/kg	ND	10.5	1.9	12/22/15 12:28	
Xylene (Total)	ug/kg	ND	10.5	3.8	12/22/15 12:28	
1,2-Dichloroethane-d4 (S)	%	112	70-132		12/22/15 12:28	
4-Bromofluorobenzene (S)	%	102	70-130		12/22/15 12:28	
Toluene-d8 (S)	%	105	70-130		12/22/15 12:28	

LABORATORY CONTROL SAMPLE: 1635394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	55.9	49.2	88	74-137	
1,1,1-Trichloroethane	ug/kg	55.9	52.9	95	67-140	
1,1,2,2-Tetrachloroethane	ug/kg	55.9	45.1	81	72-141	
1,1,2-Trichloroethane	ug/kg	55.9	48.9	87	78-138	
1,1-Dichloroethane	ug/kg	55.9	54.2	97	69-134	
1,1-Dichloroethene	ug/kg	55.9	51.0	91	67-138	
1,1-Dichloropropene	ug/kg	55.9	56.0	100	69-139	
1,2,3-Trichlorobenzene	ug/kg	55.9	49.5	89	70-146	
1,2,3-Trichloropropane	ug/kg	55.9	48.3	86	69-144	
1,2,4-Trichlorobenzene	ug/kg	55.9	47.7	85	68-148	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1635394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	55.9	48.1	86	74-137	
1,2-Dibromo-3-chloropropane	ug/kg	55.9	50.9	91	65-140	
1,2-Dibromoethane (EDB)	ug/kg	55.9	49.7	89	77-135	
1,2-Dichlorobenzene	ug/kg	55.9	50.1	90	77-141	
1,2-Dichloroethane	ug/kg	55.9	52.8	94	65-137	
1,2-Dichloropropane	ug/kg	55.9	47.7	85	72-136	
1,3,5-Trimethylbenzene	ug/kg	55.9	48.9	87	76-133	
1,3-Dichlorobenzene	ug/kg	55.9	49.9	89	74-138	
1,3-Dichloropropane	ug/kg	55.9	47.1	84	71-139	
1,4-Dichlorobenzene	ug/kg	55.9	49.6	89	76-138	
1,4-Dioxane (p-Dioxane)	ug/kg	1120	974	87	54-154	
2,2-Dichloropropane	ug/kg	55.9	54.8	98	68-137	
2-Butanone (MEK)	ug/kg	112	108J	97	58-147	
2-Chlorotoluene	ug/kg	55.9	48.6	87	73-139	
2-Hexanone	ug/kg	112	97.7	87	62-145	
4-Chlorotoluene	ug/kg	55.9	48.4	86	76-141	
4-Methyl-2-pentanone (MIBK)	ug/kg	112	104	93	64-149	
Acetone	ug/kg	112	95.8J	86	53-153	
Benzene	ug/kg	55.9	48.4	87	73-135	
Bromobenzene	ug/kg	55.9	49.3	88	75-133	
Bromochloromethane	ug/kg	55.9	54.3	97	73-134	
Bromodichloromethane	ug/kg	55.9	50.0	89	71-135	
Bromoform	ug/kg	55.9	48.6	87	66-141	
Bromomethane	ug/kg	55.9	62.5	112	53-160	
Carbon tetrachloride	ug/kg	55.9	48.9	87	60-145	
Chlorobenzene	ug/kg	55.9	48.5	87	78-130	
Chloroethane	ug/kg	55.9	56.7	101	64-149	
Chloroform	ug/kg	55.9	54.9	98	70-134	
Chloromethane	ug/kg	55.9	55.7	100	52-150	
cis-1,2-Dichloroethene	ug/kg	55.9	55.4	99	70-133	
cis-1,3-Dichloropropene	ug/kg	55.9	49.0	88	68-134	
Dibromochloromethane	ug/kg	55.9	50.1	90	71-138	
Dibromomethane	ug/kg	55.9	48.6	87	74-130	
Dichlorodifluoromethane	ug/kg	55.9	50.8	91	40-160	
Diisopropyl ether	ug/kg	55.9	56.6	101	69-141	
Ethylbenzene	ug/kg	55.9	47.3	85	75-133	
Hexachloro-1,3-butadiene	ug/kg	55.9	47.2	84	68-143	
Isopropylbenzene (Cumene)	ug/kg	55.9	50.3	90	76-143	
m&p-Xylene	ug/kg	112	96.1	86	75-136	
Methyl-tert-butyl ether	ug/kg	55.9	57.4	103	68-144	
Methylene Chloride	ug/kg	55.9	49.9	89	45-154	
n-Butylbenzene	ug/kg	55.9	46.8	84	72-137	
n-Propylbenzene	ug/kg	55.9	46.8	84	76-136	
Naphthalene	ug/kg	55.9	51.3	92	68-151	
o-Xylene	ug/kg	55.9	47.4	85	76-141	
p-Isopropyltoluene	ug/kg	55.9	47.2	84	76-140	
sec-Butylbenzene	ug/kg	55.9	50.6	91	79-139	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

LABORATORY CONTROL SAMPLE: 1635394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/kg	55.9	50.3	90	79-137	
tert-Butylbenzene	ug/kg	55.9	41.3	74	74-143	
Tetrachloroethene	ug/kg	55.9	42.8	77	71-138	
Toluene	ug/kg	55.9	47.6	85	74-131	
trans-1,2-Dichloroethene	ug/kg	55.9	50.5	90	67-135	
trans-1,3-Dichloropropene	ug/kg	55.9	47.6	85	65-146	
Trichloroethene	ug/kg	55.9	50.2	90	67-135	
Trichlorofluoromethane	ug/kg	55.9	52.5	94	59-144	
Vinyl acetate	ug/kg	112	89.6	80	40-160	
Vinyl chloride	ug/kg	55.9	58.9	105	56-141	
Xylene (Total)	ug/kg	168	144	86	76-137	
1,2-Dichloroethane-d4 (S)	%			106	70-132	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1635395 1635396

Parameter	Units	92280546015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	17.2	18	8.8	8.5	51	47	70-130	4	30	M1
1,1,1-Trichloroethane	ug/kg	ND	17.2	18	11.1	8.7	64	48	70-130	24	30	M1
1,1,2,2-Tetrachloroethane	ug/kg	ND	17.2	18	7.4	8.6	43	48	70-130	15	30	M1
1,1,2-Trichloroethane	ug/kg	ND	17.2	18	7.0	9.0	41	50	70-130	24	30	M1
1,1-Dichloroethane	ug/kg	ND	17.2	18	11.9	10.4	69	58	70-130	13	30	M1
1,1-Dichloroethene	ug/kg	ND	17.2	18	11.8	9.7	69	54	49-180	19	30	
1,1-Dichloropropene	ug/kg	ND	17.2	18	8.4	7.2	49	40	70-130	15	30	M1
1,2,3-Trichlorobenzene	ug/kg	ND	17.2	18	ND	ND	6	8	70-130		30	M1
1,2,3-Trichloropropane	ug/kg	ND	17.2	18	7.7	8.8	45	49	70-130	12	30	M1
1,2,4-Trichlorobenzene	ug/kg	ND	17.2	18	ND	ND	6	8	70-130		30	M1
1,2,4-Trimethylbenzene	ug/kg	ND	17.2	18	13.6	10.2	79	57	70-130	28	30	M1
1,2-Dibromo-3-chloropropane	ug/kg	ND	17.2	18	8.6	10.5	50	58	70-130	20	30	M1
1,2-Dibromoethane (EDB)	ug/kg	ND	17.2	18	8.0	8.5	46	47	70-130	6	30	M1
1,2-Dichlorobenzene	ug/kg	ND	17.2	18	3.4J	4.2J	20	24	70-130		30	M1
1,2-Dichloroethane	ug/kg	ND	17.2	18	11.0	11.8	64	66	70-130	7	30	M1
1,2-Dichloropropane	ug/kg	ND	17.2	18	8.9	8.8	51	49	70-130	0	30	M1
1,3,5-Trimethylbenzene	ug/kg	ND	17.2	18	8.8	8.0	51	44	70-130	10	30	M1
1,3-Dichlorobenzene	ug/kg	ND	17.2	18	3.4J	4.1J	20	23	70-130		30	M1
1,3-Dichloropropane	ug/kg	ND	17.2	18	8.1	8.8	47	49	70-130	8	30	M1
1,4-Dichlorobenzene	ug/kg	ND	17.2	18	3.3J	4.0J	19	22	70-130		30	M1
1,4-Dioxane (p-Dioxane)	ug/kg	ND	345	360	319	310	92	86	70-130	3	30	
2,2-Dichloropropane	ug/kg	ND	17.2	18	11.2	9.5	65	53	70-130	16	30	M1
2-Butanone (MEK)	ug/kg	ND	34.5	36	30.1J	33.8J	87	94	70-130		30	
2-Chlorotoluene	ug/kg	ND	17.2	18	7.2	7.3	42	41	70-130	2	30	M1
2-Hexanone	ug/kg	ND	34.5	36	26.9J	28.9J	78	80	70-130		30	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1635395 1635396

Parameter	Units	92280546015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Chlorotoluene	ug/kg	ND	17.2	18	7.6	7.8	44	43	70-130	2	30	M1
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	34.5	36	24.5J	28.8J	71	80	70-130		30	
Acetone	ug/kg	ND	34.5	36	54.9J	53.0J	159	147	70-130		30	M1
Benzene	ug/kg	ND	17.2	18	9.0	9.1	52	50	50-166	1	30	
Bromobenzene	ug/kg	ND	17.2	18	5.9	6.9	34	38	70-130	15	30	M1
Bromochloromethane	ug/kg	ND	17.2	18	11.4	12.3	66	68	70-130	7	30	M1
Bromodichloromethane	ug/kg	ND	17.2	18	7.4	8.8	43	49	70-130	17	30	M1
Bromoform	ug/kg	ND	17.2	18	4.7	5.5	27	31	70-130	17	30	M1
Bromomethane	ug/kg	ND	17.2	18	16.8	17.5	97	97	70-130	4	30	
Carbon tetrachloride	ug/kg	ND	17.2	18	9.8	7.9	57	44	70-130	22	30	M1
Chlorobenzene	ug/kg	ND	17.2	18	5.5	5.9	32	33	43-169	6	30	M1
Chloroethane	ug/kg	ND	17.2	18	14.8	12.3	86	68	70-130	18	30	M1
Chloroform	ug/kg	ND	17.2	18	11.1	10.6	64	59	70-130	4	30	M1
Chloromethane	ug/kg	ND	17.2	18	16.6	13.6	96	75	70-130	20	30	
cis-1,2-Dichloroethene	ug/kg	59.2	17.2	18	91.6	56.3	188	-16	70-130	48	30	M1,R1
cis-1,3-Dichloropropene	ug/kg	ND	17.2	18	5.9	7.0	34	39	70-130	17	30	M1
Dibromochloromethane	ug/kg	ND	17.2	18	7.0	7.3	40	40	70-130	4	30	M1
Dibromomethane	ug/kg	ND	17.2	18	9.3	11.0	54	61	70-130	17	30	M1
Dichlorodifluoromethane	ug/kg	ND	17.2	18	10.7	8.2J	62	46	70-130		30	M1
Diisopropyl ether	ug/kg	ND	17.2	18	12.0	12.2	69	68	70-130	2	30	M1
Ethylbenzene	ug/kg	ND	17.2	18	6.3	5.9	37	33	70-130	7	30	M1
Hexachloro-1,3-butadiene	ug/kg	ND	17.2	18	5.4	4.3J	31	24	70-130		30	M1
Isopropylbenzene (Cumene)	ug/kg	ND	17.2	18	7.0	6.1	40	34	70-130	14	30	M1
m&p-Xylene	ug/kg	ND	34.5	36	11.9	11.4	35	32	70-130	5	30	M1
Methyl-tert-butyl ether	ug/kg	ND	17.2	18	14.3	14.0	83	78	70-130	2	30	
Methylene Chloride	ug/kg	23.9	17.2	18	19.4	16.4J	-26	-41	70-130		30	M1
n-Butylbenzene	ug/kg	ND	17.2	18	4.7	3.7J	27	20	70-130		30	M1
n-Propylbenzene	ug/kg	ND	17.2	18	7.8	6.5	45	36	70-130	18	30	M1
Naphthalene	ug/kg	ND	17.2	18	1.8J	2.6J	10	15	70-130		30	M1
o-Xylene	ug/kg	ND	17.2	18	6.3	6.5	37	36	70-130	2	30	M1
p-Isopropyltoluene	ug/kg	ND	17.2	18	7.7	6.1	45	34	70-130	24	30	M1
sec-Butylbenzene	ug/kg	ND	17.2	18	10.2	7.7	59	43	70-130	28	30	M1
Styrene	ug/kg	ND	17.2	18	3.7J	4.7	22	26	70-130		30	M1
tert-Butylbenzene	ug/kg	ND	17.2	18	12.1	9.5	70	53	70-130	24	30	M1
Tetrachloroethene	ug/kg	ND	17.2	18	6.9	5.4	40	30	70-130	25	30	M1
Toluene	ug/kg	ND	17.2	18	6.5	7.0	37	39	52-163	8	30	M1
trans-1,2-Dichloroethene	ug/kg	ND	17.2	18	18.4	13.6	81	52	70-130	30	30	M1
trans-1,3-Dichloropropene	ug/kg	ND	17.2	18	4.9	6.4	29	35	70-130	25	30	M1
Trichloroethene	ug/kg	ND	17.2	18	16.9	15.7	74	64	49-167	8	30	
Trichlorofluoromethane	ug/kg	ND	17.2	18	11.7	9.8	68	54	70-130	18	30	M1
Vinyl acetate	ug/kg	ND	34.5	36	11.0J	16.9J	32	47	70-130		30	M1
Vinyl chloride	ug/kg	ND	17.2	18	14.7	11.8	85	65	70-130	22	30	M1
1,2-Dichloroethane-d4 (S)	%						114	114	70-132			
4-Bromofluorobenzene (S)	%						80	86	70-130			
Toluene-d8 (S)	%						88	96	70-130			

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: PMST/8667 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92280019008, 92280019009, 92280019010, 92280019011, 92280019012, 92280019013, 92280019014, 92280019015, 92280019016, 92280019018, 92280019019, 92280019020, 92280019021, 92280019022, 92280019023

SAMPLE DUPLICATE: 1631559

Parameter	Units	35220973001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.9	23.3	2	25	

SAMPLE DUPLICATE: 1631560

Parameter	Units	92280156001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	23.2	22.9	1	25	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: PMST/8689 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 92280019001, 92280019002, 92280019003, 92280019004, 92280019005, 92280019024, 92280019025, 92280019026, 92280019027, 92280019028, 92280019029, 92280019030, 92280019031, 92280019032, 92280019033

SAMPLE DUPLICATE: 1636187

Parameter	Units	92280019001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.4	7.2	3	25	

SAMPLE DUPLICATE: 1636189

Parameter	Units	92280019033 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.0	15.1	1	25	

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: WETA/25850 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92280019001, 92280019002, 92280019003, 92280019004, 92280019005, 92280019024, 92280019025, 92280019026, 92280019027, 92280019028, 92280019029, 92280019030, 92280019031, 92280019032, 92280019033

METHOD BLANK: 1633131 Matrix: Solid
Associated Lab Samples: 92280019001, 92280019002, 92280019003, 92280019004, 92280019005, 92280019024, 92280019025, 92280019026, 92280019027, 92280019028, 92280019029, 92280019030, 92280019031, 92280019032, 92280019033

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/kg	ND	0.30	0.15	12/19/15 13:35	

LABORATORY CONTROL SAMPLE: 1633132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/kg	3	3.3	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1633133 1633134

Parameter	Units	92280019001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.38	2.7	2.8	3.6	3.8	117	120	75-125	5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1633135 1633136

Parameter	Units	92280019029 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/kg	0.69	4.1	3.8	5.2	4.6	109	105	75-125	12	10	R1

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QUALITY CONTROL DATA

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

QC Batch: WETA/19422 Analysis Method: EPA 9014 Free Cyanide
QC Batch Method: EPA 9013A Free Cyanide EXT Analysis Description: 9014 Free Cyanide
Associated Lab Samples: 92280019001, 92280019002, 92280019003, 92280019004, 92280019005, 92280019024, 92280019025, 92280019026, 92280019027, 92280019028, 92280019029, 92280019030, 92280019031, 92280019032, 92280019033

METHOD BLANK: 1449906 Matrix: Water
Associated Lab Samples: 92280019001, 92280019002, 92280019003, 92280019004, 92280019005, 92280019024, 92280019025, 92280019026, 92280019027, 92280019028, 92280019029, 92280019030, 92280019031, 92280019032, 92280019033

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Free	mg/kg	ND	0.50	0.25	12/22/15 18:38	

LABORATORY CONTROL SAMPLE: 1449907

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Free	mg/kg	9.9	9.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1449908 1449909

Parameter	Units	92280019001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide, Free	mg/kg	ND	10.8	10.8	11.7	11.6	106	106	90-110	1	20	

MATRIX SPIKE SAMPLE: 1449910

Parameter	Units	92280019033 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide, Free	mg/kg	1.3	11.6	13.4	104	90-110	

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QUALIFIERS

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-I	Pace Analytical Services - Indianapolis

ANALYTE QUALIFIERS

1g	The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
C9	Common Laboratory Contaminant.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280019006	**FB-02**	EPA 8260	MSV/34795		
92280019007	**TB-06**	EPA 8260	MSV/34837		
92280019008	**DS-36B (13-15)**	EPA 8260	MSV/34837		
92280019009	**DS-36B (18-20)**	EPA 8260	MSV/34837		
92280019010	**DS-36B (23-25)**	EPA 8260	MSV/34837		
92280019011	**DS-39A (0-2)**	EPA 8260	MSV/34868		
92280019012	**DS-39A (3-5)**	EPA 8260	MSV/34837		
92280019013	**DS-39A (8-10)**	EPA 8260	MSV/34837		
92280019014	**DS-39A (13-15)**	EPA 8260	MSV/34838		
92280019015	**DS-39A (23-25)**	EPA 8260	MSV/34838		
92280019016	**DS-39A (18-20)**	EPA 8260	MSV/34838		
92280019017	**TB-07**	EPA 8260	MSV/34861		
92280019018	**DS-39A(28-30)**	EPA 8260	MSV/34838		
92280019019	**DS-41A(3-5)**	EPA 8260	MSV/34838		
92280019020	**DS-41A(0-2)**	EPA 8260	MSV/34868		
92280019021	**DS-44A(0-2)**	EPA 8260	MSV/34838		
92280019022	**DS-44A(8-10)**	EPA 8260	MSV/34868		
92280019023	**DS-44A(3-5)**	EPA 8260	MSV/34861		
92280019001	**SB-48A (0.5)**	ASTM D2974-87	PMST/8689		
92280019002	**SB-48A (5.0)**	ASTM D2974-87	PMST/8689		
92280019003	**SB-48B (0.5)**	ASTM D2974-87	PMST/8689		
92280019004	**SB-48C (0.5)**	ASTM D2974-87	PMST/8689		
92280019005	**SB-48D (0.5)**	ASTM D2974-87	PMST/8689		
92280019008	**DS-36B (13-15)**	ASTM D2974-87	PMST/8667		
92280019009	**DS-36B (18-20)**	ASTM D2974-87	PMST/8667		
92280019010	**DS-36B (23-25)**	ASTM D2974-87	PMST/8667		
92280019011	**DS-39A (0-2)**	ASTM D2974-87	PMST/8667		
92280019012	**DS-39A (3-5)**	ASTM D2974-87	PMST/8667		
92280019013	**DS-39A (8-10)**	ASTM D2974-87	PMST/8667		
92280019014	**DS-39A (13-15)**	ASTM D2974-87	PMST/8667		
92280019015	**DS-39A (23-25)**	ASTM D2974-87	PMST/8667		
92280019016	**DS-39A (18-20)**	ASTM D2974-87	PMST/8667		
92280019018	**DS-39A(28-30)**	ASTM D2974-87	PMST/8667		
92280019019	**DS-41A(3-5)**	ASTM D2974-87	PMST/8667		
92280019020	**DS-41A(0-2)**	ASTM D2974-87	PMST/8667		
92280019021	**DS-44A(0-2)**	ASTM D2974-87	PMST/8667		
92280019022	**DS-44A(8-10)**	ASTM D2974-87	PMST/8667		
92280019023	**DS-44A(3-5)**	ASTM D2974-87	PMST/8667		
92280019024	**SB-20C (5.0)**	ASTM D2974-87	PMST/8689		
92280019025	**SB-20B (5.0)**	ASTM D2974-87	PMST/8689		
92280019026	**SB-46A (15)**	ASTM D2974-87	PMST/8689		
92280019027	**SB-46A (20)**	ASTM D2974-87	PMST/8689		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC Boone 6251121001
Pace Project No.: 92280019

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92280019028	**SB-20A (0.5)**	ASTM D2974-87	PMST/8689		
92280019029	**SB-20A (5.0)**	ASTM D2974-87	PMST/8689		
92280019030	**SB-20A (10.0)**	ASTM D2974-87	PMST/8689		
92280019031	**SB-17A (5.0)**	ASTM D2974-87	PMST/8689		
92280019032	**SB-17A (10.0)**	ASTM D2974-87	PMST/8689		
92280019033	**SB-17A (15.0)**	ASTM D2974-87	PMST/8689		
92280019001	**SB-48A (0.5)**	SM 4500-CN-E	WETA/25850		
92280019002	**SB-48A (5.0)**	SM 4500-CN-E	WETA/25850		
92280019003	**SB-48B (0.5)**	SM 4500-CN-E	WETA/25850		
92280019004	**SB-48C (0.5)**	SM 4500-CN-E	WETA/25850		
92280019005	**SB-48D (0.5)**	SM 4500-CN-E	WETA/25850		
92280019024	**SB-20C (5.0)**	SM 4500-CN-E	WETA/25850		
92280019025	**SB-20B (5.0)**	SM 4500-CN-E	WETA/25850		
92280019026	**SB-46A (15)**	SM 4500-CN-E	WETA/25850		
92280019027	**SB-46A (20)**	SM 4500-CN-E	WETA/25850		
92280019028	**SB-20A (0.5)**	SM 4500-CN-E	WETA/25850		
92280019029	**SB-20A (5.0)**	SM 4500-CN-E	WETA/25850		
92280019030	**SB-20A (10.0)**	SM 4500-CN-E	WETA/25850		
92280019031	**SB-17A (5.0)**	SM 4500-CN-E	WETA/25850		
92280019032	**SB-17A (10.0)**	SM 4500-CN-E	WETA/25850		
92280019033	**SB-17A (15.0)**	SM 4500-CN-E	WETA/25850		
92280019001	**SB-48A (0.5)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019002	**SB-48A (5.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019003	**SB-48B (0.5)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019004	**SB-48C (0.5)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019005	**SB-48D (0.5)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019024	**SB-20C (5.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019025	**SB-20B (5.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019026	**SB-46A (15)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019027	**SB-46A (20)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019028	**SB-20A (0.5)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019029	**SB-20A (5.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019030	**SB-20A (10.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019031	**SB-17A (5.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019032	**SB-17A (10.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452
92280019033	**SB-17A (15.0)**	EPA 9013A Free Cyanide EXT	WETA/19422	EPA 9014 Free Cyanide	WETA/19452

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Pace Analytical®	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: 26OCT2015 Page 1 of 2
	Document No.: **F-CHR-CS-003-rev.17**	Issuing Authority: Pace Huntersville Quality Office

Sample Condition Upon Receipt

Client Name: AmeC

Project #: WO#: 92280019

92280019

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:_____

Custody Seal on Cooler/Box Present? ☐ Yes ☐ No **Seals Intact?** ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:_____

Thermometer Used: ☒ T1505 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☒ Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.5 **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Correction Factor:** 0.0 °C **Date and Initials of Person Examining Contents:** TH 12/16/15

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☑ Yes	☐ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT / SL				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☑ Yes	☐ No	☐ N/A	
Samples checked for dechlorization	☐ Yes	☐ No	☑ N/A	14.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	15.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	16.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	TH 12/16/15
Pace Trip Blank Lot # (if purchased):_____				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager SCURF Review: _____ **Date:** 12/16/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 3

2042050

Section A Required Client Information:

Company: AMEC
Address: 37 Villa Rd
Greenville SC 29615
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To: Paul Johnstone
Copy To: Tim Renn
Purchase Order No.:
Project Name: RBTC Boone
Project Number: 625112/001

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Total Cyanide (Y/N) N; 8260 (VOCs) N; Free Cyanide; 8260 (5035)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE (15)	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	Total Cyanide	8260 (VOCs)	Free Cyanide	8260 (5035)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SB-48A (0.5)	SL	G			12-14	1550		2	X								X		X			001
2	SB-48A (5.0)					12-14	1640		2	X								X		X			002
3	SB-48B (0.5)					12-14	1620		2	X								X		X			003
4	SB-48C (0.5)					12-14	1630		2	X								X		X			004
5	SB-48D (0.5)					12-14	1635		2	X								X		X			005
6	FB-02	WT				12-15	730		3				X						X				006
7	TB-06	~~AR~~ SL				12-15	730		6								X				X		007
8	DS-36B (13-15)	SL				12-15	825		6								X				X		008
9	DS-36B (18-20)					12-15	830		6								X				X		009
10	DS-36B (23-25)					12-15	835		6								X				X		010
11	DS-39A (0-2)					12-15	850		6								X				X		011
12	DS-39A (3-5)					12-15	850		6								X				X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Zach Downes	12-15-15	1420	Fed Ex						
				Cynthia Adams pace HVI	12-16-15	1130	4.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Downes

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-15-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 3

2042048

Section A Required Client Information:

Company: AMEC
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT: STD

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: RBTC Boone
Project Number: 6251121001

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): 8260 (5035); Total Cyanide; Free Cyanide

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/GRAB DATE	COLLECTED Composite End/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other 5035	8260 (5035)	Total Cyanide	Free Cyanide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DS-39A (8-10)	SL	G			12-15	900		6								X	X				013
2	DS-39A (13-15)					12-15	900		6								X	X				014
3	DS-39A (23-25)					12-15	905		6								X	X				015
4	DS-39A (18-20)					12-15	910		6								X	X				016
5	TB-07					12-15	915		6								X	X				017
6	DS-39A (28-30)					12-15	915		6								X	X				018
7	DS-41A (3-5)					12-15	920		6								X	X				019
8	DS-41A (0-2)					12-15	920		6								X	X				020
9	DS-44A (0-2)					12-15	925		6								X	X				021
10	DS-44A (8-10)					12-15	925		6								X	X				022
11	DS-44A (3-5)					12-15	930		6								X	X				023
12	SB-20C (5.0)					12-15	935		2	X									X	X		024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Zach Downes	12-15-15	1420	Fed Ex						
				Kyle Pace HVI	12-16-15	1130	4.5	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Downes

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 12-15-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 3

2042049

Section A Required Client Information:

Company: AMEC
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT: STD.

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: RBTC Boone
Project Number: 625121001

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): Free Cyanide, Total Cyanide

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE (15)	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Free Cyanide	Total Cyanide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SB-20B (5.0)	SL	G			12-15	940		2	X								X	X		025
2	SB-46A (15)					12-14	1645		2	X								X	X		026
3	SB-46A (20)					12-14	1635		2	X								X	X		027
4	SB-20A (0.5)					12-15	950		2	X								X	X		028
5	SB-20A (5.0)					12-15	950		2	X								X	X		029
6	SB-20A (10.0)					12-15	955		2	X								X	X		030
7	SB-17A (5.0)					12-15	1005		2	X								X	X		031
8	SB-17A (10.0)					12-15	1005		2	X								X	X		032
9	SB-17A (15.0)					12-15	1010		2	X								X	X		033
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Zach Downes	12-15-15	1420	Fed Ex						
				Sylvia Hobbs pre HVI	12-16-15	1130	4.5	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Zach Downes

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 12-15-15

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

July 11, 2015

Timothy Renn
Amec Foster Wheeler
37 Villa Road
Suite 201
Greenville, SC 29615

RE: Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Dear Timothy Renn:
Enclosed are the analytical results for sample(s) received by the laboratory on June 26, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project:	RBTC BOONE 6251-12-1001
Pace Project No.:	92256170

Asheville Certification IDs
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92256170001	**SW-5**	Water	06/25/15 11:10	06/26/15 08:30
92256170002	**MW-4**	Water	06/25/15 14:50	06/26/15 08:30
92256170003	**MW-12D**	Water	06/25/15 16:25	06/26/15 08:30

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SAMPLE ANALYTE COUNT

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92256170001	**SW-5**	SM 4500-CN-E	JDA	1	PASI-A
92256170002	**MW-4**	SM 4500-CN-E	JDA	1	PASI-A
92256170003	**MW-12D**	SM 4500-CN-E	JDA	1	PASI-A

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PROJECT NARRATIVE

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Total
Client: Amec Foster Wheeler, Greenville, SC
Date: July 11, 2015

General Information:
3 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Sample: SW-5 **Lab ID: 92256170001** Collected: 06/25/15 11:10 Received: 06/26/15 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.0043J**	mg/L	0.0080	0.0040	1		07/06/15 14:41	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Sample: MW-4 **Lab ID: 92256170002** Collected: 06/25/15 14:50 Received: 06/26/15 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.18**	mg/L	0.0080	0.0040	1		07/06/15 14:41	57-12-5	

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ANALYTICAL RESULTS

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Sample: MW-12D **Lab ID: 92256170003** Collected: 06/25/15 16:25 Received: 06/26/15 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	**0.023**	mg/L	0.0080	0.0040	1		07/06/15 14:42	57-12-5	

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

QC Batch: WETA/23593 | Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E | Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92256170001, 92256170002, 92256170003

METHOD BLANK: 1501833 | Matrix: Water
Associated Lab Samples: 92256170001, 92256170002, 92256170003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0080	07/06/15 14:18	

LABORATORY CONTROL SAMPLE: 1501834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1501835 1501836

Parameter	Units	92255922002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	.1	.1	0.10	0.10	104	103	75-125	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1501837 1501838

Parameter	Units	92256070002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	.2	.2	0.21	0.21	106	104	75-125	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RBTC BOONE 6251-12-1001
Pace Project No.: 92256170

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92256170001	**SW-5**	SM 4500-CN-E	WETA/23593		
92256170002	**MW-4**	SM 4500-CN-E	WETA/23593		
92256170003	**MW-12D**	SM 4500-CN-E	WETA/23593		

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Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: May 18, 2015 Page 1 of 2*
	Document Number: **F-CHR-CS-003-rev.16**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Amec

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used: IR Gun T1401 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.: 4.6 °C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: TMLAO

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JJ Date: 6/26/15

SRF Review: JJ Date: 6/26/15

WO#: 92256170

92256170

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1899993

Section A Required Client Information:

Company: AMEC
Address: 37 VILLA RD, STE. 201
GREENVILLE, SC 29615
Email To: TIMOTHY.RENN@AMEC.COM
Phone: 864-552-9624 Fax: 864-552-9699
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: TIMOTHY RENN
Copy To:
Purchase Order No.: C01220676 6
Project Name: RBTC-BOONE
Project Number: 6251-12-1001

Section C Invoice Information:

Attention:
Company Name: AMEC
Address: ALPHARETTA
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Total Cyanide SM4500CN-E; Free Cyanide 9014

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Total Cyanide SM4500CN-E	Free Cyanide 9014	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92256170
1	SW-5	WT	G			6/25/15	11:10		3					3				X	X		001
2	MW-4	WT	G			6/25/15	14:50		3					3				X	X		002
3	MW-12D	WT	G			6/25/15	16:25		3					3				X	X		003
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
TOTAL CYANIDE VIA SM4500 CN-E	[signature] / AMEC	06/26/15	8:38	Shawn Pace	6/26	830	4°C	Y	Y	Y
FREE CYANIDE by 9014										

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: DUANE D. SNYDER
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 06/26/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

LRS, Inc.

Laboratory Resources & Solutions, Inc.
163 5th Street
Ashville, AL 35953
(205) 683-6731
www.lab-resource.com

Analytical Data Report

Client: LRS, Inc

Attention: Mr. Michael Norris

Project ID: Pace Analytical Services

Laboratory Report Number: 15-190-0203

Date: 7/9/2015

Primary Data Review by:

Andy Parrish

Andy Parrish
Project Manager
Environmental Testing & Consulting, Inc.
aparrish@etcmemphis.com

Secondary Data Review by:

Wayne Gaston
Project Manager
Laboratory Resources & Solutions, Inc.
wgaston@lab-resource.com

*Unless otherwise noted, all analysis on this report performed at Environmental Testing & Consulting, Inc. (ETC, Inc.) 2790 Whitten Road Memphis, TN 38133. NELAC #460181

* Alabama #40750 Louisiana #04015 VA NELAP #460181 Texas #T104704180-11-6
Arkansas #88-0650 Mississippi California #09267CA NC #415 Oklahoma #9311 Virginia #00106
Kentucky #90047 Tennessee #TN02027 EPA #TN00012 Kentucky UST #41 Kansas #E-10396

* These results relate only to the items tested. This report may only be reproduced in full.

* Local support services for this project are provided by Laboratory Resources & Solutions, Inc. (LRS). All questions regarding this report should be directed to LRS, Inc. at (205) 683-6731.

ETC
www.etcmemphis.com
ENVIRONMENTAL TESTING & CONSULTING, INC.
2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

13943
LRS, Inc
Mr. Michael Norris
163 5th Street
Ashville , AL 35953

Project Information : Pace Analytical Services

Report Date : 07/09/2015
Received : 7/9/2015

Andy Parrish
Project Manager

Report Number : **15-190-0203**

REPORT OF ANALYSIS

Lab No : **95883**
Sample ID : **SW-5**

Matrix: **Aqueous**
Sampled: **6/25/2015 11:10**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Free Cyanide	<0.005	mg/L	0.005	1	07/09/15 11:26	EWB	SW-9014

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

ETC
www.etcmemphis.com
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13943
LRS, Inc
Mr. Michael Norris
163 5th Street
Ashville , AL 35953

Project Information : Pace Analytical Services

Report Date : 07/09/2015
Received : 7/9/2015

Andy Parrish
Project Manager

Report Number : **15-190-0203**

REPORT OF ANALYSIS

Lab No : **95884**
Sample ID : **MW-4**

Matrix: **Aqueous**
Sampled: **6/25/2015 14:50**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Free Cyanide	**0.173**	mg/L	0.005	1	07/09/15 11:26	EWB	SW-9014

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

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"A Laboratory Management Partner"

13943
LRS, Inc
Mr. Michael Norris
163 5th Street
Ashville , AL 35953

Project Information : Pace Analytical Services

Report Date : 07/09/2015
Received : 7/9/2015

Andy Parrish
Project Manager

Report Number : **15-190-0203**

REPORT OF ANALYSIS

Lab No : **95885**
Sample ID : **MW-12D**

Matrix: **Aqueous**
Sampled: **6/25/2015 16:25**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Free Cyanide	**0.018**	mg/L	0.005	1	07/09/15 11:26	EWB	SW-9014

Qualifiers/ Definitions DF Dilution Factor MQL Method Quantitation Limit

ETC
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2790 Whitten Road Memphis, Tennessee 38133 (901) 213-2400 Fax (901) 213-2440
"A Laboratory Management Partner"

Cooler Receipt Form

Customer Number: **13943**
Customer Name: **LRS, Inc**
Report Number: **15-190-0203**

Shipping Method

● Fed Ex ○ US Postal ○ Lab ○ Other :
○ UPS ○ Client ○ Courier Thermometer ID: #5

Shipping container/cooler uncompromised?	● Yes	○ No	
Number of coolers received	1		
Custody seals intact on shipping container/cooler?	● Yes	○ No	○ Not Required
Custody seals intact on sample bottles?	○ Yes	○ No	● Not Required
Chain of Custody (COC) present?	● Yes	○ No	
COC agrees with sample label(s)?	● Yes	○ No	
COC properly completed	● Yes	○ No	
Samples in proper containers?	● Yes	○ No	
Sample containers intact?	● Yes	○ No	
Sufficient sample volume for indicated test(s)?	● Yes	○ No	
All samples received within holding time?	● Yes	○ No	
Cooler temperature in compliance?	● Yes	○ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	● Yes	○ No	
Water - Sample containers properly preserved	● Yes	○ No	○ N/A
Water - VOA vials free of headspace	○ Yes	○ No	● N/A
Trip Blanks received with VOAs	○ Yes	○ No	● N/A
Soil VOA method 5035 – compliance criteria met	○ Yes	○ No	● N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)
☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included? ○ Yes ● No

Comments:

Any regulatory non-compliance issues will be recorded on non-compliance report.

Signature: Danyale Love Date & Time: 07/09/2015 09:13:00

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: 92256170 **Workorder Name:** RBTC BOONE 6251-12-1001 **Results Requested** 7/13/2015

Report / Invoice To

Kevin Godwin
Pace Analytical Charlotte
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
Phone (704)875-9092
Email: kevin.godwin@pacelabs.com

Subcontract To

P.O. KRG 14941

ETC
2790 whitten Rd
Memphis, TN 38133
901-327-2750

Requested Analysis

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: KRG 7/8/15	Preserved Containers: NaOH					Free Cyanide 9014											LAB USE ONLY
1	SW-5	6/25/2015 11:10	92256170001	Water		2					X											
2	MW-4	6/25/2015 14:50	92256170002	Water		2					X											
3	MW-12D	6/25/2015 16:25	92256170003	Water		2					X											
4																						
5																						

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible]	7/8/15 17:00	Kathy Eck / Pace	7/8/15 0935
2	Kathy Eck / Pace	7/8/15 1411		
3				

Comments

* Samples approaching hold Time (7/9/15)
* invoice Michael Norris via LRS
* Rush

Cooler Temperature on Receipt °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

15-190-0203
13943
07-09-2015
09:07:01
LRS, Inc
Pace Analytical Services

Custody seals intact on cooler. 02

* Blank 1.5°C TS 02

Wednesday, July 08, 2015 1:39:52 PM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

DJ Lowe 7/9/15

Data Validation Reports

DATA VALIDATION REPORT
2015 SOIL SAMPLING
RBTC BOONE

1.0 INTRODUCTION

Surface water, groundwater, and soil samples were collected during sampling completed during June and July 2015 at the Robert Bosch Tool Corporation Boone Facility located in Boone, North Carolina. The soil samples were analyzed by Pace Analytical Services, Inc. (Pace) in Asheville, North Carolina, Pace in Charlotte, North Carolina, Pace in Greensburg, Pennsylvania, Pace in Indianapolis, Indiana, or Laboratory Resources & Solutions, Inc. (LRS, Inc.) in Ashville, Alabama (under contract to Pace). Sample results were submitted from Pace Analytical in three sample delivery groups (SDGs): 92256170, 92261498, and 92261516. A summary of the sample delivery group (SDG) and field samples included in this review is presented in Table 1.

Samples reviewed in this report were analyzed for one or more of the following USEPA SW-846 (USEPA, 1996) methods:

- Cyanide by Method Standard Methods (SM) 4500-CN-E
- Thiocyanate by Method SM 4500-CN-M
- Free Cyanide by Method United States Environmental Protection Agency (USEPA) 9014
- Synthetic Precipitation Leaching Procedure (SPLP) Total Cyanide by Method USEPA 0012B

Sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 2008; USEPA, 2010). Project data quality criteria for the cyanide analyses are identified based on laboratory quality control (QC) goals and the professional judgment of the project chemist. The laboratory QC limits were used during data validation. A Level II validation was performed on the laboratory analysis data. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory narrative
- sample chain of custody/sample condition upon receipt form
- sample preservation
- QC blanks (method, rinse, field, and trip)
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- field replicate sample results
- sample results summary
- verification of electronic data deliverable (EDD) results

Validation reason codes are applied to the results to document the reason for necessary data qualification. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below are generally used to qualify data that did not meet project specific QC goals.

J Estimated value
R Unusable

U Undetected
UJ Undetected and reporting limit is estimated

2.0 VALIDATION OBSERVATION AND ACTIONS

With the exception of the data qualification actions discussed in the sections below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Low recovery of thiocyanate in two MS/MSD pairs resulted in the qualification of the thiocyanate results in sample SB-30A-0.5 reported in SDG 92261498 and sample SB-42A-17 reported in SDG 92261516.
- Low recovery of free cyanide in two MS/MSD pairs resulted in the qualification of the free cyanide results in sample SB-30A-0.5 reported in SDG 92261498 and sample SB-42A-17 reported in SDG 92261516.

Validation reason codes are applied to the results to document the reason for the validation qualification.

2.1 Total Cyanide

Based on the project scope, results were reported for total cyanide by Method SM 4500-CN-E. During the Level II review, the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results*
- surrogate recovery
- field replicate result
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

<u>Holding Times</u>

All total cyanide samples were analyzed within the required holding time.

<u>QC Blanks</u>

QC blanks for total cyanide include method blanks and rinse blanks. Any result less than 5 times (10 times for common contaminants) the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common contaminants) the concentration detected in the field blank, rinse blank, and/or trip blank was considered a possible field artifact. Field blanks and trip blanks were not collected for this data set. The method blanks and rinse blank were non-detect. Therefore, data qualification was not required.

LCS Results

Four LCS samples were analyzed in the analytical sequences. In these LCS analyses, target compound recoveries were within limits indicating good confirmation of data accuracy. Therefore, data qualification was not required.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. The following project MS or MS/MSD samples were analyzed:

MS/MSD were performed on project sample RB-01; recoveries were within QC limits. Therefore, data qualification was not required.

An MS/MSD was performed on project sample SB-42A-17: RPD was outside (above) QC limits for cyanide. This would require the sample to be qualified as estimated and flagged "J". However, the cyanide result for this sample was already flagged "J" due to the reported concentration being less than the reporting limit. Therefore, additional data qualification was not required.

Field Duplicates Results

A field duplicate was collected on one sample: Sample SB-42A-14/ SB-42A-14-XD. Field duplicate precision, expressed as relative percent difference (RPD), is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

Total cyanide was detected in the parent/duplicate samples SB-42A-14/ SB-42A-14-XD; RPDs were less than or equal to 20 percent, meeting field duplicate precision requirements.

2.2 Thiocyanate

Based on the project scope, results were reported for thiocyanate by Method SM 4500-CN-M. During the Level II review the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results*
- field duplicates result
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

Holding Times

All thiocyanate samples were analyzed within the required holding time.

QC Blanks

QC blanks for thiocyanate include method blanks and rinse blanks. Any result less than 5 times the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common contaminants) the concentration detected in the field blank and/or rinse blank was considered a possible field artifact. Associated sample results were qualified non-detect (U) in the final data. Field blanks, rinse blanks, and trip blanks were not collected for this data set. The method blanks were non-detect. Therefore, no data qualification was required.

LCS Results

Two LCS samples were analyzed in analytical sequences. In these LCS analyses, thiocyanate recoveries were within limits indicating good confirmation of data accuracy.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. MS/MSD recoveries and/or RPD performance were within QC limits for the two MS/MSD samples. Some of the MS/MSD samples were performed on non-project samples. No discussion of MS/MSDs is necessary for non-project samples since no qualification would be applied to project samples based on recoveries that are outside of recovery limits. The following project MS or MS/MSD samples were analyzed:

MS/MSD were performed on project sample SB-30A-0.5; the recoveries were outside QC limits (low) for thiocyanate. The non-detect thiocyanate result for this sample was qualified as estimated and flagged “UJ”.

MS/MSD were performed on project sample SB-42A-17; the recoveries were outside QC limits (low) for thiocyanate. The non-detect thiocyanate result for this sample was qualified as estimated and flagged “UJ”.

Field Duplicate Results

A field duplicate was collected on one sample: Sample SB-42A-14/ SB-42A-14-XD. Field duplicate precision, expressed as RPD, is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

Thiocyanate was not detected in the parent/duplicate samples (SB-42A-14/ SB-42A-14-XD); therefore, duplicate precision could not be assessed due to the lack of detections above the reporting limit.

2.3 Free Cyanide

Based on the project scope, results were reported for free cyanide by Method USEPA 9014. During the Level II review the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times*
- QC Blanks
- LCS results
- MS/MSD sample results*
- field duplicates result
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

Holding Times

All free cyanide samples were analyzed within the required holding time.

QC Blanks

QC blanks for free cyanide include method blanks and rinse blanks. Any result less than 5 times the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common contaminants) the concentration detected in the field blank and/or rinse blank was considered a possible field artifact. Associated sample results were qualified non-detect (U) in the final data. Field blanks, rinse blanks, and trip blanks were not collected for this data set. The method blanks were non-detect. Therefore, data qualification was not required.

LCS Results

Three LCS samples were analyzed in analytical sequences. In these LCS analyses, free cyanide recoveries were within limits indicating good confirmation of data accuracy.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. MS/MSD recoveries and/or RPD performance were within QC limits for the four MS/MSD samples. The following project MS or MS/MSD samples were analyzed:

MS/MSD were performed on project sample SB-30A-0.5; the recoveries were outside QC limits (low) for free cyanide. The free cyanide result for this sample was qualified as estimated and flagged “J”.

MS/MSD were performed on project sample SB-42A-17; the recoveries were outside QC limits (low) for free cyanide. The free cyanide result for this sample was qualified as estimated and flagged “J”.

Field Duplicate Results

A field duplicate was collected on one sample: Sample SB-42A-14/ SB-42A-14-XD. Field duplicate precision, expressed as RPD, is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

Free cyanide was detected in the parent sample SB-42A-14 but not in the duplicate sample SB-42A-14-XD. An RPD could not be calculated since the duplicate sample was non-detect; therefore, duplicate precision could not be assessed due to the lack of detections above the reporting limit.

Laboratory Duplicate Results

A laboratory duplicate was collected on one sample: L 95872/ L 95872-DUP. Field duplicate precision, expressed as RPD, is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

Free cyanide was detected in the parent/duplicate samples L 95872/ L 95872-DUP; the RPD was less than or equal to 20 percent, meeting laboratory duplicate precision requirements.

2.4 Total Cyanide SPLP

Based on the project scope, results were reported for total cyanide SPLP by Method USEPA 9012B. During the Level II review, the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results
- surrogate recovery
- field replicate result
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

Holding Times

All total cyanide SPLP samples were analyzed within the required holding time.

QC Blanks

QC blanks for total cyanide SPLP include method blanks and rinse blanks. Any result less than 5 times (10 times for common contaminants) the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common contaminants) the concentration detected in the field blank and/or rinse blank, and/or trip blank was considered a possible field artifact. Field blanks, rinse blanks, and trip blanks were not collected for this data set. The method blanks were non-detect. Therefore, data qualification was not required.

LCS Results

One LCS sample was analyzed in the analytical sequences. In this LCS analysis, target compound recoveries were within limits indicating good confirmation of data accuracy. Therefore, data qualification was not required.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. The following project MS or MS/MSD samples were analyzed:

MS/MSD were performed on project sample SB-42A-17; recoveries were within QC limits. Therefore, data qualification was not required.

Field Duplicates Results

Field duplicates were not collected for total cyanide SPLP.

3.0 SUMMARY

The data are usable with the qualification identified for the free cyanide (SB-30A-0.5 and SB-42A-17 were "J" flagged) and thiocyanate (SB-30A-0.5 and SB-42A-17 were "UJ" flagged).

References:

U.S. Environmental Protection Agency (USEPA), 1996. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

U.S. Environmental Protection Agency (USEPA), 2008. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540/R-08-01; June 2008.

U.S. Environmental Protection Agency (USEPA), 2010. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540-R-10-011; January 2010.

Prepared by/Date: Lynne Clem 10/27/15
Checked by/Date: Daniel Howard 11/4/15

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
GROUNDWATER SAMPLES					
MW-4	MW-4	6/25/2015	Cyanide	SM 4500-CN-E	92256170
	MW-4	6/25/2015	Free Cyanide	EPA 9014	92256170
MW-12D	MW-12D	6/25/2015	Cyanide	SM 4500-CN-E	92256170
	MW-12D	6/25/2015	Free Cyanide	EPA 9014	92256170
SURFACE WATER SAMPLES					
SW-5	SW-5	6/25/2015	Cyanide	SM 4500-CN-E	92256170
	SW-5	6/25/2015	Free Cyanide	EPA 9014	92256170
SOIL SAMPLES					
SB-16A-10	SB-16A-10	7/30/2015	Cyanide	SM 4500-CN-E	92261498
	SB-16A-10	7/30/2015	Thiocyanate	SM 4500-CN-M	92261498
	SB-16A-10	7/30/2015	Free Cyanide	EPA 9014	92261498
SB-16A-13	SB-16A-13	7/30/2015	Cyanide	SM 4500-CN-E	92261516
	SB-16A-13	7/30/2015	Thiocyanate	SM 4500-CN-M	92261516
	SB-16A-13	7/30/2015	Free Cyanide	EPA 9014	92261516
	SB-16A-13	7/30/2015	Total Cyanide SPLP	EPA 9012B	92261516
SB-30A-0.5	SB-30A-0.5	7/30/2015	Cyanide	SM 4500-CN-E	92261498
	SB-30A-0.5 [(a)]	7/30/2015	Thiocyanate	SM 4500-CN-M	92261498
	SB-30A-0.5 [(b)]	7/30/2015	Free Cyanide	EPA 9014	92261498
SB-42A-14	SB-42A-14	7/30/2015	Cyanide	SM 4500-CN-E	92261498
	SB-42A-14	7/30/2015	Thiocyanate	SM 4500-CN-M	92261498
	SB-42A-14	7/30/2015	Free Cyanide	EPA 9014	92261498
	SB-42A-14-XD	7/30/2015	Cyanide	SM 4500-CN-E	92261498
	SB-42A-14-XD	7/30/2015	Thiocyanate	SM 4500-CN-M	92261498
	SB-42A-14-XD	7/30/2015	Free Cyanide	EPA 9014	92261498
SB-42A-17	SB-42A-17 [(c)]	7/30/2015	Cyanide	SM 4500-CN-E	92261516
	SB-42A-17 [(a)]	7/30/2015	Thiocyanate	SM 4500-CN-M	92261516
	SB-42A-17 [(b)]	7/30/2015	Free Cyanide	EPA 9014	92261516
	SB-42A-17 [(d)]	7/30/2015	Total Cyanide SPLP	EPA 9012B	92261516
SB-42C-14	SB-42C-14	7/30/2015	Cyanide	SM 4500-CN-E	92261516
	SB-42C-14	7/30/2015	Thiocyanate	SM 4500-CN-M	92261516
	SB-42C-14	7/30/2015	Free Cyanide	EPA 9014	92261516
	SB-42C-14	7/30/2015	Total Cyanide SPLP	EPA 9012B	92261516
SB-42D-14	SB-42D-14	7/30/2015	Cyanide	SM 4500-CN-E	92261516
	SB-42D-14	7/30/2015	Thiocyanate	SM 4500-CN-M	92261516
	SB-42D-14	7/30/2015	Free Cyanide	EPA 9014	92261516
	SB-42D-14	7/30/2015	Total Cyanide SPLP	EPA 9012B	92261516
SB-42E-14	SB-42E-14	7/30/2015	Cyanide	SM 4500-CN-E	92261516
	SB-42E-14	7/30/2015	Thiocyanate	SM 4500-CN-M	92261516
	SB-42E-14	7/30/2015	Free Cyanide	EPA 9014	92261516
	SB-42E-14	7/30/2015	Total Cyanide SPLP	EPA 9012B	92261516
SB-44A-18	SB-44A-18	7/30/2015	Cyanide	SM 4500-CN-E	92261498
	SB-44A-18	7/30/2015	Thiocyanate	SM 4500-CN-M	92261498
	SB-44A-18	7/30/2015	Free Cyanide	EPA 9014	92261498
SB-44A-21	SB-44A-21	7/30/2015	Cyanide	SM 4500-CN-E	92261516
	SB-44A-21	7/30/2015	Thiocyanate	SM 4500-CN-M	92261516
	SB-44A-21	7/30/2015	Free Cyanide	EPA 9014	92261516
	SB-44A-21	7/30/2015	Total Cyanide SPLP	EPA 9012B	92261516
QUALITY CONTROL SAMPLES					
--	RB-01 [(c)]	7/30/2015	Cyanide	SM 4500-CN-E	92261516

Notes:

[(a)] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (Thiocyanate).
[(b)] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (Free Cyanide).

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG

[c] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (Total Cyanide).

[d] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (Total Cyanide-SPLP).

Samples were analyzed by Pace Analytical Laboratories located in Asheville, North Carolina, Charlotte, North Carolina, Greensburg, Pennsylvania, or Indianapolis, Indiana.

SDG = Sample Delivery Group

SPLP = Synthetic Precipitation Leaching Procedure

Prepared by/Date: LWC 10-27-15

Checked by/Date: DLH 11/4/15

TABLE 2
VALIDATION QUALIFIER SUMMARY
2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

MATRIX	SAMPLE ID	SAMPLE DATE	SDG_ID	METHOD	PARAMETER	UNITS	LAB RESULT	LAB QUALIFIER	VALIDATION RESULT	VALIDATION QUALIFIER	REASON CODE
S	SB-30A-0.5	7/30/2015	92261498	SM 4500-CN-M	Thiocyanate	mg/kg	1.2	U, N2, M1	1.2	UJ	MS-L
S	SB-30A-0.5	7/30/2015	92261498	EPA 9014	Free Cyanide	mg/kg	0.9		0.9	J	MS-L
S	SB-42A-17	7/30/2015	92261516	SM 4500-CN-M	Thiocyanate	mg/kg	1.2	U, N2, M1	1.2	UJ	MS-L
S	SB-42A-17	7/30/2015	92261516	EPA 9014	Free Cyanide	mg/kg	0.95		0.95	J	MS-L

Prepared by / Date: LWC 10/27/15
Checked by / Date: DLH 11/4/15

Notes:
Laboratory qualifiers that *did not change* as a result of the data validation are not shown on this table.
J - Value is estimated.
M1 - Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
mg/kg - milligram per kilogram
MS-L - Matrix spike (MS)/Matrix spike duplicate (MSD) recovery less than the QC limits.
N2 - The lab does not hold The NELAC Institute (TNI) accreditation for this parameter.
U - not detected, value is the detection limit
S - Soil

Relative Percent Difference (RPD) on Duplicate Samples - Soil 2015
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001.03.01

Constituents	SB-42D-14	SB-42D-14-XD	RPD (%)
Total Cyanide	2.1	2.0	4.9
Thiocyanate	ND	ND	--
Free Cyanide	1.8 J	ND	--
Total Cyanide, SPLP (mg/L)	NA	NA	--

Notes:
Units in milligrams per kilogram (mg/kg), except as noted.
mg/L = milligrams per liter
SPLP = Synthetic Precipitation Leaching Procedure

Prepared By/Date: LWC 10/7/15
Checked By/Date: DLH 11/3/15

DATA VALIDATION RECORD

Method EPA 9014 for Free Cyanide
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: LRS, Inc, 15-190-9203 / PACE Analytical, 92256170
Data Validation Level: II
Date: 10/27/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/2/2015

Samples Reviewed: MW-4, MW-12D and SW-5.

1. **Case Narrative and COC review**

COC (pg. 8 of LRS, Inc. summary) present for the samples in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days)**

Free cyanide in water and preserved with NaOH; initial cooler temp 4.6ºC per page 19 PACE "Sample Condition Upon Receipt" (SCUR) checklist and 1.5ºC per Pace/LRS COC. Samples collected: 6/25/15; Prepped and Analyzed: 7/9/15. Sample SW-5 was collected on 6/25/15 at 11:10 and analyzed on 7/9/15 at 11:26. Since the holding time was only exceeded by 16 minutes the sample result was not qualified.

3. **Instrument Initial Calibration**

Not required for Level II

4. **Continuing Calibration**

Not required for Level II

5. **QC Blanks**

Method Blanks:

Pg. 6, 7/9/15 LRB = ND

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 6, LCS, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Field Duplicate not included in this SDG.

Laboratory Duplicate (RPD ≤ 20)

Sample Duplicate pair L 95872 / L 95872-DUP

Compound	Sample	Duplicate	RPD	Flag
Free Cyanide	0.313	0.324	3.45	none

8. Matrix Spike (MS) (70-130 %)

Pg. 6, L 95872-MS, non-project sample. MS is within required QC limits.

9. Raw Calculations

Not required for Level II

10. Electronic Data Review

An EDD was not included for Free Cyanide in this SDG.

DATA VALIDATION RECORD

Method SM 4500-CN-E for Total Cyanide
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92256170
Data Validation Level: II
Date: 10/7/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/2/2015

Samples Reviewed: MW-4, MW-12D, and SW-5.

1. **Case Narrative and COC review**

Case Narrative (pg. 5 of summary) & COC (pg. 13 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days)**

Cyanide in water and preserved with NaOH; cooler temp 4.6ºC per page 12 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 6/25/15; Prepped and Analyzed: 7/6/15.

3. **Instrument Initial Calibration**

Not required for Level II

4. **Continuing Calibration**

Not required for Level II

5. **QC Blanks**

Method Blanks:

Pg. 9, 7/6/15 MB 1501833 = ND

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 9, LCS 1501834, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Field Duplicates not included in this SDG.

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for total cyanide.

9. Matrix Spike/Spike Duplicate (MS/MSD) (90-110 %/RPD <10)

Pg. 9, MS- 1501835 /MSD- 1501836, non-project sample 92255922002.
Pg. 9, MS- 1501837 /MSD- 1501838, non-project sample 92256070002.

Above MS/MSD were within QC limits.

10. Raw Calculations

Not required for Level II

11. Electronic Data Review

Results were compared to EDD - ok

DATA VALIDATION RECORD

Method EPA 9014 for Free Cyanide
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261498
Data Validation Level: II
Date: 10/7/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/3/2015

Samples Reviewed: SB-16A-10, SB-30A-0.5, SB-42A-14, SB-42A-14-XD, and SB-44A-18.

1. **Case Narrative and COC review**

Case Narrative (pg. 7 of summary) & COC (pg. 20 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Free cyanide in soil and preserved with NaOH; cooler temp 2.6ºC per page 19 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15; Prepped: 8/5/15; Analyzed: 8/7/15.

3. **Instrument Initial Calibration**

Not required for Level II

4. **Continuing Calibration**

Not required for Level II

5. **QC Blanks**

Method Blanks:

Pg. 16, 8/7/15 MB 1350900 = ND

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 16, LCS 1350901, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Sample Duplicate pair SB-42A-14 / SB-42A-14-XD

Compound	Sample	Duplicate	RPD	Flag
Free Cyanide	1.8 J	ND	--	none

Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for free cyanide.

8. Matrix Spike/Spike Duplicate (MS/MSD) (90-110 %/RPD <20)

Pg. 16, MS- 1350902 /MSD- 1350903, project sample 92261498001 (SB-30A-0.5).

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Free Cyanide	57	57	0	J	MS-L

9. Raw Calculations

Not required for Level II

10. Electronic Data Review

Results were compared to EDD - ok

DATA VALIDATION RECORD

Method SM 4500-CN-E for Total Cyanide
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261498
Data Validation Level: II
Date: 10/13/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/2/2015

Samples Reviewed: SB-16A-10, SB-30A-0.5, SB-42A-14, SB-42A-14-XD, and SB-44A-18.

1. **Case Narrative and COC review**

Case Narrative (pg. 5 of summary) & COC (pg. 20 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Cyanide in soil and preserved with NaOH; cooler temp 2.6ºC per page 19 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15; Prepped and Analyzed: 8/5/15.

3. **Instrument Initial Calibration**

Not required for Level II

4. **Continuing Calibration**

Not required for Level II

5. **QC Blanks**

Method Blanks:

Pg. 14, 8/5/15 MB 1524940 = ND

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 14 LCS 1524941, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Sample Duplicate pair SB-42A-14 / SB-42A-14-XD

Compound	Sample	Duplicate	RPD	Flag
Total Cyanide	2.1	2.0	4.9	none

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for total cyanide.

9. Matrix Spike/Spike Duplicate (MS/MSD) (75-125 %/RPD <10)

Pg. 14, MS- 1524942 /MSD- 1524943, non-project sample 92261089001.

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Cyanide	94	69	25	none	non-project sample

Pg. 14, MS- 1524944 /MSD- 1524945, non-project sample 92261211010.

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Cyanide	93	82	16	none	non-project sample

10. Raw Calculations

Not required for Level II

11. Electronic Data Review

Results were compared to EDD - ok

DATA VALIDATION RECORD

Method SM 4500-CN-M for Thiocyanate
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261498
Data Validation Level: II
Date: 10/13/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/3/2015

Samples Reviewed: SB-16A-10, SB-30A-0.5, SB-42A-14, SB-42A-14-XD, and SB-44A-18.

1. **Case Narrative and COC review**

Case Narrative (pg. 6 of summary) & COC (pg. 20 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Thiocyanate in soil and preserved with NaOH; cooler temp 2.6ºC per page 19 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15; Prepped and Analyzed: 8/9/15.

3. **Instrument Initial Calibration**

Not required for Level II.

4. **Continuing Calibration**

Not required for Level II.

5. **QC Blanks**

Method Blanks:

Pg. 15, 8/9/15 MB 933600 = ND.

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 15 LCS 933601, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Thiocyanate results for parent and duplicate sample pair SB-42A-14 / SB-42A-14-XD were non-detect, so Relative Percent Difference calculations could not be made.

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for thiocyanate.

9. Matrix Spike/Spike Duplicate (MS/MSD) (85-115 %/RPD <20)

Pg. 15, MS- 933602 /MSD- 933603, project sample 92261498001 (SB-30A-0.5).

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Thiocyanate	74	74	0	UJ	MS-L

10. Raw Calculations

Not required for Level II.

11. Electronic Data Review

Results were compared to EDD - ok

DATA VALIDATION RECORD

Method EPA 9012B for Total Cyanide Synthetic Precipitation Leaching Procedure (SPLP)
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261516
Data Validation Level: II
Date: 10/7/2015
Reviewer: L. Clem **Senior Reviewer: D. Howard 11/4/2015**

Samples Reviewed: SB-16A-13, SB-42A-17, SB-42B-14, SB-42C-14, SB-42D-14, SB-42D-14, and SB-44A-21.

1. **Case Narrative and COC review**

Case Narrative (pg. 7 of summary) & COC (pgs. 26-28 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Samples soil and preserved with NaOH; cooler temps 2.0ºC and 4.3ºC per page 25 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15, 7/31/15; Prepped: 8/18/15; Analyzed: 8/18/15.

3. **Instrument Initial Calibration**

Not required for Level II.

4. **Continuing Calibration**

Not required for Level II.

5. **QC Blanks**

Method Blanks:

Pg. 21, 8/18/15 MB 1535867 = ND.

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 21 LCS 1535868, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Field Duplicates not included in this SDG.

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for free cyanide.

9. Matrix Spike/Spike Duplicate (MS/MSD) (90-110 %/RPD <20)

Pg. 21, MS- 1535869 /MSD- 1535870, project sample 92261516010 (SB-42A-17).

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Total Cyanide-SPLP	119	124	4	none	--

10. Raw Calculations

Not required for Level II.

11. Electronic Data Review

Results were compared to EDD – ok.

DATA VALIDATION RECORD

Method EPA 9014 for Free Cyanide
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261516
Data Validation Level: II
Date: 10/7/2015
Reviewer: L. Clem **Senior Reviewer: D Howard 11/4/2015**

Samples Reviewed: SB-16A-13, SB-42A-17, SB-42B-14, SB-42C-14, SB-42D-14, SB-42D-14, and SB-44A-21.

1. **Case Narrative and COC review**

Case Narrative (pg. 8 of summary) & COC (pgs. 26-28 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Free cyanide in soil and preserved with NaOH; cooler temps 2.0ºC and 4.3ºC per page 25 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15, 7/31/15; Prepped: 8/12/15; Analyzed: 8/14/15.

3. **Instrument Initial Calibration**

Not required for Level II

4. **Continuing Calibration**

Not required for Level II

5. **QC Blanks**

Method Blanks:

Pg. 22, 8/14/15 MB 1355723 = ND

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 22 LCS 1355724, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Field Duplicates not included in this SDG.

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for free cyanide.

9. Matrix Spike/Spike Duplicate (MS/MSD) (90-110 %/RPD <20)

Pg. 22, MS- 1355725 /MSD- 1355726, project sample 92261516010 (SB-42A-17).

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Free Cyanide	60	67	1	J	MS-L

10. Raw Calculations

Not required for Level II

11. Electronic Data Review

Results were compared to EDD - ok

DATA VALIDATION RECORD

Method SM 4500-CN-E for Total Cyanide
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261516
Data Validation Level: II
Date: 10/7/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/4/2015

Samples Reviewed: RB-01, SB-16A-13, SB-42A-17, SB-42B-14, SB-42C-14, SB-42D-14, SB-42E-14, and SB-44A-21.

1. **Case Narrative and COC review**

Case Narrative (pg. 5 of summary) & COC (pgs. 26-28 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Samples preserved with NaOH; cooler temps 2.0ºC and 4.3ºC per page 25 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15, 7/31/15; Prepped and Analyzed: 8/13/15.

3. **Instrument Initial Calibration**

Not required for Level II.

4. **Continuing Calibration**

Not required for Level II.

5. **QC Blanks**

Method Blanks:

Pg. 18, 8/13/15 MB 1531682 = ND.
Pg. 19, 8/13/15 MB 1533815 = ND.

Equipment (Rinse) Blank

Pg. 9, RB-01, 7/30/15, Cyanide not detected.

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 18 LCS 1531683, LCS is within required QC limits.
Pg. 19 LCS 1533816, LCS is within required QC limits.

7. Field Duplicate Precision (RPD ≤ 20)

Field Duplicates not included in this SDG.

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for total cyanide.

9. Matrix Spike/Spike Duplicate (MS/MSD) (75-125 %/RPD <10)

Pg. 19, MS- 1533817 /MSD- 1533818, project sample 92261516001 (RB-01).

Above MS/MSD were within QC limits.

Pg. 18, MS- 1531684 /MSD- 1531685, project sample 92261516010 (SB-42A-17).

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Cyanide	111	105	15	J*	MS-R

*This sample was already flagged as “J” (estimated) due to reported concentration less than the reporting limit. No further qualification was required.

10. Raw Calculations

Not required for Level II.

11. Electronic Data Review

Results were compared to EDD – ok.

DATA VALIDATION RECORD

Method SM 4500-CN-M for Thiocyanate
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92261516
Data Validation Level: II
Date: 10/7/2015
Reviewer: L. Clem Senior Reviewer: D. Howard 11/4/2015

Samples Reviewed: SB-16A-13, SB-42A-17, SB-42B-14, SB-42C-14, SB-42D-14, SB-42D-14, and SB-44A-21.

1. **Case Narrative and COC review**

Case Narrative (pg. 6 of summary) & COC (pgs. 26-28 of summary) present for the sample in this SDG.

2. **Sample Collection, Preservation; pH>12; cool to 4ºC ± 2 ºC; Holding time (14 days to extract, 14 days from extraction to analysis)**

Thiocyanate in soil and preserved with NaOH; cooler temps 2.0ºC and 4.3ºC per page 25 "Sample Condition Upon Receipt" (SCUR) checklist. Samples collected: 7/30/15, 7/31/15; Prepped and Analyzed: 8/18/15.

3. **Instrument Initial Calibration**

Not required for Level II.

4. **Continuing Calibration**

Not required for Level II.

5. **QC Blanks**

Method Blanks:

Pg. 20, 8/18/15 MB 938610 = ND.

Field Blank

Field Blank not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 20 LCS 938611, LCS is within required QC limits.

7. **Field Duplicate Precision (RPD ≤ 20)**

Field Duplicates not included in this SDG.

8. Laboratory Duplicate (RPD ≤ 20)

Lab dups not analyzed for thiocyanate.

9. Matrix Spike/Spike Duplicate (MS/MSD) (85-115 %/RPD <20)

Pg. 20, MS- 938612 /MSD- 938613, project sample 92261516010 (SB-42A-17).

Compound	MS % Rec	MSD % Rec	RFD	Flag	Reason Code
Thiocyanate	57	57	0	UJ	MS-L

10. Raw Calculations

Not required for Level II.

11. Electronic Data Review

Results were compared to EDD - ok

DATA VALIDATION REPORT
OCTOBER 2015 SOIL SAMPLING
RBTC BOONE

1.0 INTRODUCTION

Soil samples were collected during the October 2015 sampling event at the Robert Bosch Tool Corporation Boone Facility located in Boone, North Carolina. The soil samples were analyzed by Pace Analytical in Charlotte, North Carolina. A summary of the sample delivery groups (SDG) and field samples included in this review is presented in Table 1. Samples reviewed in this report were analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260.

Sample results were submitted from Pace Analytical in three sample delivery groups (SDGs): 92272410, 92272696, and 92272895.

Sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 2008; USEPA, 2010). Project data quality criteria for the cyanide analyses are identified based on laboratory quality control (QC) goals and the professional judgment of the project chemist. The laboratory QC limits were used during data validation. A Level II validation was performed on the laboratory analysis data. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory narrative
- sample chain of custody/sample condition upon receipt form
- sample preservation
- QC blanks (method, rinse, field, and trip)
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- field replicate sample results
- sample results summary
- verification of electronic data deliverable (EDD) results

Validation reason codes are applied to the results to document the reason for necessary data qualification. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below are generally used to qualify data that did not meet project specific QC goals.

J	Estimated value
R	Unusable
U	Undetected
UJ	Undetected and reporting limit is estimated

2.0 VALIDATION OBSERVATION AND ACTIONS

With the exception of the data qualification actions discussed in the sections below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Detection of methylene chloride and toluene in Trip Blank 01 resulted in qualification of methylene chloride results in samples DS-1 (18-20), DS-1 (23-25), DS-1 (28-30), DS-3 (18-20), DS-13 (0-2), DS-13 (3-5), DS-13 (8-10), DS-13 (13-15), DS-14 (0-2), DS-14 (13-15), DS-14 (3-5), DS-14 (8-10), DS-4A (18-20), DS-4A (23-25), and DS-4A (28-30), and; toluene results in samples DS-13 (3-5) and DS-4A (28-30) reported in SDG 92272410.

- Detection of 2-butanone, acetone, methylene chloride, and toluene in Trip Blank 02 resulted in qualification of 2-butanone results in samples DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), and DS-10 (8-10); acetone results in samples DS-3 (23-25), DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), DS-10 (13-15), and; methylene chloride results in samples DS-3 (23-25), DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), DS-10 (13-15), and; toluene results in samples DS-10 (3-5), DS-10 (8-10), DS-3 (28-30), and DS-6 (23-25) reported in SDG 92272410.

- Low recovery of in an MS resulted in the qualification of the 1,1,2,2-tetrachloroethane and vinyl acetate results in sample DS-14 (0-2) reported in SDG 92272410.
- Low recovery in an MS resulted in the qualification of the 1,2,3-trichlorobenzene result in sample DS-4A (18-20) reported in SDG 92272410.
- Detection of methylene chloride in a Field Blank (FB-02) resulted in qualification of methylene chloride results in samples DS-17 (18-20), DS-17 (23-25), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-20 (28-30), DS-21 (0-2), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-26 (3-5), DS-26 (8-10), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), DS-26 (28-30), DS-27 (0-2), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), and DS-34 (13-15) reported in SDG 92272696.
- Detection of acetone, methylene chloride, and toluene in Trip Blank 03 resulted in qualification of acetone results in samples DS7-(8-10), DS7-(13-15), DS-16 (18-20), DS-16 (23-25), DS-16 (28-30), DS-21 (0-2), DS-21 (3-5), DS-27 (0-2), DS-27 (3-5), DS-31 (13-15), DS-33 (8-10), DS-34 (8-10), DS-34 (13-15); methylene chloride results in samples DS7-(8-10), DS7-(13-15), DS-16 (18-20), DS-16 (23-25), DS-16 (28-30), DS-21 (0-2), DS-21 (3-5), DS-27 (0-2), DS-27 (3-5), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), DS-34 (13-15), FB-02; and toluene results in sample DS7-(13-15) reported in SDG 92272696.
- Detection of acetone in Trip Blank 04 resulted in qualification of acetone results in samples DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-22 (8-10), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-27 (8-10), and DS-27 (13-15) reported in SDG 92272696.
- Low recovery in the LCS resulted in the qualification of the vinyl acetate results in samples DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), and Trip Blank 04 reported in SDG 92272696.
- The following acetone concentrations were qualified as not detected due to professional judgment: DS-22 (13-15), DS-20 (23-25), DS-26 (3-5), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), and DS-26 (28-30) (SDG 92272696) were raised to their reporting limits and qualified as "U".
- Detection of naphthalene in a method blank resulted in the qualification of the naphthalene result in sample DS-39 (23-25) reported in SDG 92272895.

- Detection of acetone in a method blank resulted in the qualification of the acetone results in samples DS-39 (0-2) and DS-46 (3-5) reported in SDG 92272895.
- Detection of acetone, methylene chloride, and toluene in Trip Blank 06 resulted in qualification of acetone results in samples DS-28 (0-2), DS-28 (3-5), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), and DS-49 (3-5); methylene chloride results in samples DS-28 (0-2), DS-28 (3-5), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), DS-40 (0-2), DS-40 (3-5), DS-49 (0-2), and DS-49 (3-5); and the toluene result in sample DS-49 (3-5) reported in SDG 92272895.
- Detection of 2-butanone and toluene in Trip Blank 07 resulted in qualification of the 2-butanone result in sample DS-46 (0-2); and toluene results in samples DS-39 (23-25) and DS-49 (8-10) reported in SDG 92272895.
- Detection of methylene chloride in Trip Blank 08 resulted in qualification of methylene chloride results in samples DS-38 (3-5), DS-38 (18-20), DS-38 (23-25), DS-39 (0-2), DS-39 (3-5), DS-42 (0-2), DS-43 (3-5), DS-45 (0-2), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), and DS-50 (13-15) reported in SDG 92272895.
- Low recovery in the LCS resulted in the qualification of the 1,1,2-trichloroethane results in samples DS-28 (23-25) and DS-28 (28-30) reported in SDG 92272895.
- Low recovery in an LCS resulted in the qualification of the 1,1,2,2-tetrachloroethane and vinyl acetate results in samples DS-39 (0-2), DS-39 (3-5), DS-46 (3-5), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), and DS-50 (13-15) reported in SDG 92272895.
- Relative percent difference (RPD) in the laboratory duplicate pair resulted in the qualification of the cis-1,2-dichloroethene and tetrachloroethene results in the sample DS-38 (18-20) reported in SDG 92272895.
- RPD in the laboratory duplicate pair resulted in the qualification of the tetrachloroethene results in the sample DS-39 (0-2) reported in SDG 92272895.
- Low recovery in an MS resulted in the qualification of the 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, hexachloro-1,3-butadiene, n-butyl benzene, naphthalene, p-isopropyltoluene, and tetrachloroethane results in sample DS-28 (0-2) reported in SDG 92272895.
- Low recovery in an MS sample resulted in the qualification of the hexachloro-1,3-butadiene result in sample DS-38 (23-25) reported in SDG 92272895.
- The following acetone concentrations were qualified as not detected due to professional judgment: DS-49 (8-10), DS-49 (13-15), DS-48 (3-5), DS-47 (0-2), DS-39 (23-25), DS-46 (0-2), DS-47 (3-5), DS-38 (28-30), DS-43 (3-5), DS-42 (3-5), DS-38 (18-20), DS-38 (23-25), and DS-42 (0-2) (SDG 92272895) were raised to their reporting limits and qualified as "U".
- The following methylene chloride concentrations were qualified as not detected due to professional judgment: DS-49 (8-10), DS-49 (13-15), DS-48 (3-5), DS-39 (28-30), DS-47 (0-2), DS-48 (0-2), DS-47 (3-5), DS-39 (18-20), DS-43 (0-2), DS-38 (0-2), DS-38 (28-30), DS-42 (3-5), and DS-45 (3-5) (SDG 92272895) were raised to their reporting limits and qualified as "U".

Validation reason codes are applied to the results to document the reason for the validation qualification. Table 2 presents a summary of the data qualified, the validation flag, and the reason codes.

2.1 VOCs

Based on the project scope, results were reported for VOCs by Method 8260. During the Level II review, the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks*
- LCS results*
- MS/MSD sample results*
- surrogate recovery
- field replicate result
- laboratory replicate result*
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

Holding Times

All VOC samples were analyzed within the required holding time.

QC Blanks

QC blanks for VOCs include method blanks, field blanks, rinse blanks, and trip blanks. Any result less than 5 times (10 times for common contaminants) the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common contaminants) the concentration detected in the field blank, rinse blank, and/or trip blank was considered a possible field artifact. Rinse blanks were not collected for this data set.

Naphthalene was detected in a method blank and in a site sample requiring validation qualification. The naphthalene concentration in DS-39 (23-25) (SDG 92272895) was raised to the reporting limit and qualified as "U".

Acetone was detected in a method blank and in site samples requiring validation qualification. The acetone concentrations in DS-39 (0-2) and DS-46 (3-5) (SDG 92272895) were raised to their reporting limits and qualified as "U".

Methylene chloride was detected in a field blank and in site samples requiring validation qualification. The methylene chloride concentrations in DS-17 (18-20), DS-17 (23-25), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-20 (28-30), DS-21 (0-2), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-26 (3-5), DS-26 (8-10), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), DS-26 (28-30), DS-27 (0-2), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), and DS-34 (13-15) (SDG 92272696) were raised to their reporting limits and qualified as "U".

Methylene chloride and toluene were detected in Trip Blank 01 of SDG 92272410. The methylene chloride concentrations in DS-1 (18-20), DS-1 (23-25), DS-1 (28-30), DS-3 (18-20), DS-4A (18-20), DS-4A (23-25), DS-4A (28-30), DS-13 (0-2), DS-13 (3-5), DS-13 (8-10), DS-13 (13-15), DS-14 (0-2), DS-14 (3-5), DS-14 (8-10), , and DS-14 (13-15) (SDG 92272410) and the toluene concentrations in samples DS-13 (3-5) and DS-4A (28-30) (SDG 92272410) were raised to their reporting limits and qualified as "U".

Acetone, 2-butanone, methylene chloride, and toluene were detected in Trip Blank 02 of SDG 92272410. The acetone concentrations in DS-3 (23-25), DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), and DS-10 (13-15) (SDG 92272410) were raised to their reporting limits and qualified as "U". The 2-butanone concentrations in DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), and DS-10 (8-10) (SDG 92272410) were raised to their reporting limits and qualified as "U". The methylene chloride concentrations in DS-3 (23-25), DS-3 (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), and DS-10 (13-15) (SDG 92272410) were raised to their reporting limits and qualified as "U". The toluene concentrations in DS-3 (28-30), DS-10 (3-5), DS-10 (8-10), and DS-6 (23-25) (SDG 92272410) were raised to their reporting limits and qualified as "U".

Acetone, methylene chloride, and toluene were detected in Trip Blank 03 of SDG 92272696. The acetone concentrations in DS7-(8-10), DS7-(13-15), DS-16 (18-20), DS-16 (23-25), DS-16 (28-30), DS-21 (0-2), DS-27 (0-2), DS-31 (13-15), DS-33 (8-10), DS-34 (8-10), and DS-34 (13-15) (SDG 92272410) were raised to their reporting limits and qualified as "U". The methylene chloride concentrations in DS7-(8-10), DS7-(13-15), DS-16 (18-20), DS-16 (23-25), DS-16 (28-30), DS-21 (0-2), DS-27 (0-2), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), DS-34 (13-15), and FB-02 (SDG 92272410) were raised to their reporting limits and qualified as "U". The toluene concentration in DS7-(13-15) (SDG 92272410) was raised to its reporting limit and qualified as "U".

Acetone was detected in Trip Blank 04 of SDG 92272696. The acetone concentrations in DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-21 (3-5), DS-22 (8-10), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-27 (3-5), DS-27 (8-10), and DS-27 (13-15) (SDG 92272410) were raised to their reporting limits and qualified as "U".

Toluene was detected in Trip Blank 05 of SDG 92272696. However, the samples associated with Trip Blank 05 were non-detect for toluene. Therefore, no validation qualification was required.

Acetone, methylene chloride, and toluene were detected in Trip Blank 06 of SDG 92272895. The acetone concentrations in DS-28 (0-2), DS-28 (3-5), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), and DS-49 (3-5) (SDG 92272895) were raised to their reporting limits and qualified as "U". The methylene chloride concentrations in DS-28 (0-2), DS-28 (3-5), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), DS-40 (0-2), DS-40 (3-5), DS-49 (0-2), and DS-49 (3-5) (SDG 92272895) were raised to their reporting limits and qualified as "U". The toluene concentration in DS-49 (3-5) (SDG 92272895) was qualified as "U".

2-Butanone and toluene were detected in Trip Blank 07 of SDG 92272895. The 2-butanone concentration in DS-46 (0-2) (SDG 92272895) was raised to its reporting limit and qualified as "U". The toluene concentrations in DS-39 (23-25) and DS-49 (8-10) (SDG 92272895) were raised to their reporting limits and qualified as "U".

Methylene chloride was detected in Trip Blank 08 of SDG 92272895. The methylene chloride concentration in DS-38 (3-5), DS-38 (23-25), DS-39 (0-2), DS-39 (3-5), DS-42 (0-2), DS-43 (3-5), DS-45 (0-2), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), DS-50 (13-15) (SDG 92272895) were raised to their

reporting limits and qualified as "U". In addition, the methylene chloride concentration in DS-38 (18-20) (SDG 92272895) was qualified as "U".

LCS Results

Fifteen LCS samples were analyzed in the analytical sequences. In nine of these LCS analyses, target compound recoveries were within limits indicating good confirmation of data accuracy. Therefore, data qualification was not required. In three of these LCS analyses, target compound recoveries were outside limits (high), however, the compounds were not detected in the associated samples. Therefore, data qualification was not required. Qualification was required in the samples listed below due to LSC performance outside of QC limits:

Vinyl acetate had a low LCS recovery in one LCS sample, the associated vinyl acetate concentrations in samples DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), and Trip Blank 04 were qualified as estimated (flagged "J"; "UJ" for non-detects).

1,1,2-Trichloroethane had a low LCS recovery in one LCS sample, the associated 1,1,2-trichloroethane concentrations in samples DS-28 (23-25) and DS-28 (28-30) were qualified as estimated (flagged "J"; "UJ" for non-detects).

1,1,2,2-Tetrachloroethane and vinyl acetate had low LCS recoveries in one LCS sample, the associated 1,1,2,2-tetrachloroethane and vinyl acetate concentrations in samples DS-39 (0-2), DS-39 (3-5), DS-46 (3-5), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), and DS-50 (13-15) were qualified as estimated (flagged "J"; "UJ" for non-detects).

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. The following project MS or MS/MSD samples were analyzed:

An MS was performed on sample DS-14 (0-2): recovery was outside (below) QC limits for 1,1,2,2-tetrachloroethane and vinyl acetate. Therefore, the non-detect 1,1,2,2-tetrachloroethane and vinyl acetate results in sample DS-14 (0-2) were qualified as an estimated concentration and flagged "UJ". Additionally, MS recovery was above the QC limits for 2-butanone, sec-butyl benzene, and trichloroethene. However, these compounds were not detected in the site sample. Therefore, data qualification was not required.

An MS was performed on sample DS-14 (13-15): recovery was outside (above) QC limits for 1,4-dioxane, 2-butanone, 4-methyl-2-pentanone, bromomethane, diisopropyl ether, isopropylbenzene, methylene chloride, sec-butyl benzene, and trans-1,2-dichloroethene. However, these compounds were not detected in the site sample. Therefore, data qualification was not required.

An MS was performed on sample DS-4A (18-20): recovery was outside (below) QC limits for 1,2,3-trichlorobenzene. Therefore, the non-detect 1,2,3-trichlorobenzene result in sample DS-14 (0-2) was qualified as an estimated concentration and flagged "UJ". Additionally, the MS recovery was outside (above) QC limits for 1,4-dioxane, 2-butanone, bromomethane, methylene chloride, n-butyl benzene, n-propylbenzene, p-isopropyltoluene, and sec-butyl benzene. However, these compounds were not detected in the site sample. Therefore, data qualification was not required.

An MS was performed on sample DS-17 (18-20): recovery was outside (above) QC limits for 2-butanone, acetone, and bromomethane. However, 2-butanone and bromomethane were not detected in the site sample. Therefore, data qualification was not required for these compounds. The acetone result in DS-17 (18-20) was raised to the reporting limit and qualified as non-detect ("U" flagged) due to detection in a trip blank. Therefore, no further qualification was required for acetone.

An MS was performed on sample DS-26 (8-10): recovery was outside (above) QC limits for acetone. However, acetone was not detected in the site sample. Therefore, data qualification was not required.

An MS was performed on sample DS-28 (0-2): recovery was outside (below) QC limits for 1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; 1,2-dichlorobenzene; 1,3-dichlorobenzene; 1,4-dichlorobenzene; hexachloro-1,3-butadiene; n-butyl benzene; naphthalene; p-isopropyltoluene; and tetrachloroethene. Therefore, the results for these compounds in sample DS-28 (0-2) were qualified as an estimated concentration and flagged "J" ("UJ" for non-detects).

An MS was performed on sample DS-48 (3-5): recovery was outside (above) QC limits for acetone and methylene chloride. These results were qualified as not detected due to professional judgment and flagged "U". Therefore, additional data qualification was not required.

An MS was performed on project sample DS-38 (23-25): recovery was outside (above) QC limits for 2-butanone and acetone and below QC limits for hexachloro-1,3-butadiene. 2-Butanone was not detected in the site sample, so qualification for this result was not required. The acetone result was qualified as not detected due to professional judgment and flagged "U"; no further qualification of the acetone result was required. The non-detect hexachloro-1,3-butadiene result for this sample as qualified as estimated and flagged "UJ".

Field Duplicates Results

Field duplicates were not collected for this data set.

Laboratory Duplicates Results

Laboratory duplicates were analyzed on six site samples: DS-1 (28-30), DS-14 (8-10), DS-17 (18-20), DS-20 (28-30), DS-38 (18-20), DS-39 (0-2), and DS-49 (8-10). Field duplicate precision, expressed as RPD, is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

VOCs were detected in the parent/duplicate samples DS-14 (8-10)/Duplicate, DS-17 (18-20)/Duplicate, DS-20 (28-30)/Duplicate, and DS-49 (8-10)/Duplicate; RPDs were less than or equal to 20 percent, meeting laboratory duplicate precision requirements.

VOCs were detected in the parent/duplicate DS-38 (18-20)/Duplicate; the RPDs for cis-1,2-dichloroethene and tetrachloroethene were greater than 20 percent. Therefore, the results for these compounds in the site sample were qualified as estimated and flagged "J".

VOCs were detected in the parent/duplicate DS-39 (0-2)/Duplicate; the RPD for tetrachloroethene was greater than 20 percent. Therefore, the result for tetrachloroethene in the site sample was qualified as estimated and flagged "J".

3.0 PROFESSIONAL JUDGMENT QUALIFICATION

Professional judgment was used to qualify low-level results for acetone in some of the samples. Edits to the DQE qualifiers by professional judgment were required for the detected concentrations of acetone and/or methylene chloride that were not qualified based on method and/or equipment blank results. Professional judgment was used to qualify the detected acetone results "U" as possibly biased high or false positive due to the following reasons:

- The soil samples were preserved with sodium bisulfate for low-level VOC analysis. According to Appendix A of USEPA Method 5035A, *Closed System Purge-and-Trap and Extraction For Volatile Organics in Soil and Waste Samples* (USEPA, 2002), acetone can be produced upon the acidification with sodium bisulfate preservative (Hewitt, 1999 and Uhlfelder, 2000).
- Acetone is not a Site Compound of Concern (COC).
- Most of the associated acetone and methylene chloride detected in samples from the same location was qualified as a field and/or laboratory artifact (U-flagged) due to method, field, and/or trip blank results.
- The acetone and methylene chloride results are below screening levels.
- Both acetone and methylene chloride are common laboratory contaminants.

The above listed reasons support the professional judgment qualification ("U" flag) of the low-level detected acetone results in the soil samples.

The following acetone concentrations were qualified as not detected due to professional judgment: DS-20 (23-25), DS-22 (13-15), DS-26 (3-5), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), and DS-26 (28-30) (SDG 92272696); and DS-38 (18-20), DS-38 (23-25), DS-38 (28-30), DS-39 (23-25), DS-42 (0-2), DS-42 (3-5), DS-43 (3-5), DS-46 (0-2), DS-47 (0-2), DS-47 (3-5), DS-48 (3-5), DS-49 (8-10), and DS-49 (13-15) (SDG 92272895) were raised to their reporting limits and qualified as "U".

The following methylene chloride concentrations were qualified as not detected due to professional judgment: DS-38 (0-2), DS-38 (28-30), DS-39 (18-20), DS-39 (28-30), DS-42 (3-5), DS-43 (0-2), DS-45 (3-5), DS-47 (0-2), DS-47 (3-5), DS-48 (0-2), DS-48 (3-5), DS-49 (8-10), and DS-49 (13-15) (SDG 92272895) were raised to their reporting limits and qualified as "U".

4.0 SUMMARY

The data are usable with the qualification identified for the results associated with:

- n-butyl benzene, cis-1,2-dichloroethane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, hexachloro-1,3-butadiene, p-isopropyltoluene, naphthalene, 1,1,2,2-tetrachloroethane, tetrachloroethene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,1,2-trichloroethane, and vinyl acetate ("J"/"UJ" flagged).
- acetone, 2-butanone, methylene chloride, naphthalene, and toluene ("U" flagged).

References:

Hewitt, A.D., 1999. "Storage and Preservation of Soil Samples for Volatile Compound Analysis; Special Report 99-5," Hanover, NH; U.S. Army Cold Regions Research and Engineering Laboratory.

Uhlfelder, M.M., 2000. "Study of Acetone Production in SW-846 Method 5035 (Low Level) Associated with Various Preservation Techniques and Storage Conditions," *Proceedings of the 16th Annual Waste Testing and QA Symposium*, U.S. EPA, Washington, D.C. p.13.

U.S. Environmental Protection Agency (USEPA), 1996. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

USEPA, 2002. Method 5035A – Closed System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples, Revision 1, USEPA, July 2002.

U.S. Environmental Protection Agency (USEPA), 2008. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540/R-08-01; June 2008.

U.S. Environmental Protection Agency (USEPA), 2010. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540-R-10-011; January 2010.

Prepared by/Date: Lynne Clem 1/18/16
Checked by/Date: JAH 02/05/16

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
OCTOBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
SOIL SAMPLES					
DS-1 (18-20)	DS-1 (18-20)	10/19/2015	VOCs	8260	92272410
DS-1 (23-25)	DS-1 (23-25)	10/19/2015	VOCs	8260	92272410
DS-1 (28-30)	DS-1 (28-30)	10/19/2015	VOCs	8260	92272410
DS-3 (18-20)	DS-3 (18-20)	10/19/2015	VOCs	8260	92272410
DS-3 (23-25)	DS-3 (23-25)	10/19/2015	VOCs	8260	92272410
DS-3 (28-30)	DS-3 (28-30)	10/19/2015	VOCs	8260	92272410
DS-4A (18-20)	DS-4A (18-20) [(a)]	10/19/2015	VOCs	8260	92272410
DS-4A (23-25)	DS-4A (23-25)	10/19/2015	VOCs	8260	92272410
DS-4A (28-30)	DS-4A (28-30)	10/19/2015	VOCs	8260	92272410
DS-5 (18-20)	DS-5 (18-20)	10/19/2015	VOCs	8260	92272410
DS-6 (23-25)	DS-6 (23-25)	10/19/2015	VOCs	8260	92272410
DS7-(8-10)	DS7-(8-10)	10/19/2015	VOCs	8260	92272696
DS7-(13-15)	DS7-(13-15)	10/19/2015	VOCs	8260	92272696
DS-10 (0-2)	DS-10 (0-2)	10/19/2015	VOCs	8260	92272410
DS-10 (3-5)	DS-10 (3-5)	10/19/2015	VOCs	8260	92272410
DS-10 (8-10)	DS-10 (8-10)	10/19/2015	VOCs	8260	92272410
DS-10 (13-15)	DS-10 (13-15)	10/19/2015	VOCs	8260	92272410
DS-13 (0-2)	DS-13 (0-2)	10/19/2015	VOCs	8260	92272410
DS-13 (3-5)	DS-13 (3-5)	10/19/2015	VOCs	8260	92272410
DS-13 (8-10)	DS-13 (8-10)	10/19/2015	VOCs	8260	92272410
DS-13 (13-15)	DS-13 (13-15)	10/19/2015	VOCs	8260	92272410
DS-14 (0-2)	DS-14 (0-2) [(a)]	10/19/2015	VOCs	8260	92272410
DS-14 (3-5)	DS-14 (3-5)	10/19/2015	VOCs	8260	92272410
DS-14 (8-10)	DS-14 (8-10)	10/19/2015	VOCs	8260	92272410
DS-14 (13-15)	DS-14 (13-15) [(a)]	10/19/2015	VOCs	8260	92272410
DS-14 (0-2)	DS-14 (0-2)	10/19/2015	VOCs	8260	92272410
DS-16-(18-20)	DS-16-(18-20)	10/19/2015	VOCs	8260	92272696
DS-16-(23-25)	DS-16-(23-25)	10/19/2015	VOCs	8260	92272696
DS-16-(28-30)	DS-16-(28-30)	10/19/2015	VOCs	8260	92272696
DS-17 (18-20)	DS-17 (18-20) [(a)]	10/20/2015	VOCs	8260	92272696
DS-17 (23-25)	DS-17 (23-25)	10/20/2015	VOCs	8260	92272696
DS-17 (25-30)	DS-17 (25-30)	10/20/2015	VOCs	8260	92272696
DS-20 (0-2)	DS-20 (0-2)	10/20/2015	VOCs	8260	92272696
DS-20 (3-5)	DS-20 (3-5)	10/20/2015	VOCs	8260	92272696
DS-20 (8-10)	DS-20 (8-10)	10/20/2015	VOCs	8260	92272696
DS-20 (13-15)	DS-20 (13-15)	10/20/2015	VOCs	8260	92272696
DS-20 (18-20)	DS-20 (18-20)	10/20/2015	VOCs	8260	92272696
DS-20 (23-25)	DS-20 (23-25)	10/20/2015	VOCs	8260	92272696
DS-20 (28-30)	DS-20 (28-30)	10/20/2015	VOCs	8260	92272696
DS-21 (0-2)	DS-21 (0-2)	10/20/2015	VOCs	8260	92272696
DS-21 (3-5)	DS-21 (3-5)	10/20/2015	VOCs	8260	92272696
DS-22 (3-5)	DS-22 (3-5)	10/20/2015	VOCs	8260	92272696
DS-22 (8-10)	DS-22 (8-10)	10/20/2015	VOCs	8260	92272696
DS-22 (13-15)	DS-22 (13-15)	10/20/2015	VOCs	8260	92272696
DS-23 (0-2)	DS-23 (0-2)	10/20/2015	VOCs	8260	92272696
DS-24 (0-2)	DS-24 (0-2)	10/20/2015	VOCs	8260	92272696
DS-24 (3-5)	DS-24 (3-5)	10/20/2015	VOCs	8260	92272696
DS-26 (0-2)	DS-26 (0-2)	10/20/2015	VOCs	8260	92272696
DS-26 (3-5)	DS-26 (3-5)	10/20/2015	VOCs	8260	92272696
DS-26 (8-10)	DS-26 (8-10) [(a)]	10/20/2015	VOCs	8260	92272696
DS-26 (13-15)	DS-26 (13-15)	10/20/2015	VOCs	8260	92272696
DS-26 (23-25)	DS-26 (23-25)	10/20/2015	VOCs	8260	92272696
DS-26 (28-30)	DS-26 (28-30)	10/20/2015	VOCs	8260	92272696

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
OCTOBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
DS-27 (0-2)	DS-27 (0-2)	10/20/2015	VOCs	8260	92272696
DS-27 (3-5)	DS-27 (3-5)	10/20/2015	VOCs	8260	92272696
DS-27 (8-10)	DS-27 (8-10)	10/20/2015	VOCs	8260	92272696
DS-27 (13-15)	DS-27 (13-15)	10/20/2015	VOCs	8260	92272696
DS-28 (0-2)	DS-28 (0-2) [(a)]	10/20/2015	VOCs	8260	92272895
DS-28 (3-5)	DS-28 (3-5)	10/20/2015	VOCs	8260	92272895
DS-28 (8-10)	DS-28 (8-10)	10/20/2015	VOCs	8260	92272895
DS-28 (13-15)	DS-28 (13-15)	10/20/2015	VOCs	8260	92272895
DS-28 (18-20)	DS-28 (18-20)	10/20/2015	VOCs	8260	92272895
DS-28 (23-25)	DS-28 (23-25)	10/20/2015	VOCs	8260	92272895
DS-28 (28-30)	DS-28 (28-30)	10/20/2015	VOCs	8260	92272895
DS-31 (8-10)	DS-31 (8-10)	10/20/2015	VOCs	8260	92272696
DS-31 (13-15)	DS-31 (13-15)	10/20/2015	VOCs	8260	92272696
DS-33 (8-10)	DS-33 (8-10)	10/20/2015	VOCs	8260	92272696
DS-33 (13-15)	DS-33 (13-15)	10/20/2015	VOCs	8260	92272696
DS-34 (8-10)	DS-34 (8-10)	10/20/2015	VOCs	8260	92272696
DS-34 (13-15)	DS-34 (13-15)	10/20/2015	VOCs	8260	92272696
DS-36A (23-25)	DS-36A (23-25)	10/21/2015	VOCs	8260	92272895
DS-37 (18-20)	DS-37 (18-20)	10/21/2015	VOCs	8260	92272895
DS-37 (23-25)	DS-37 (23-25)	10/21/2015	VOCs	8260	92272895
DS-37 (28-30)	DS-37 (28-30)	10/21/2015	VOCs	8260	92272895
DS-38 (0-2)	DS-38 (0-2)	10/21/2015	VOCs	8260	92272895
DS-38 (3-5)	DS-38 (3-5)	10/21/2015	VOCs	8260	92272895
DS-38 (18-20)	DS-38 (18-20)	10/21/2015	VOCs	8260	92272895
DS-38 (23-25)	DS-38 (23-25) [(a)]	10/21/2015	VOCs	8260	92272895
DS-38 (28-30)	DS-38 (28-30)	10/21/2015	VOCs	8260	92272895
DS-39 (0-2)	DS-39 (0-2)	10/21/2015	VOCs	8260	92272895
DS-39 (3-5)	DS-39 (3-5)	10/21/2015	VOCs	8260	92272895
DS-39 (18-20)	DS-39 (18-20)	10/21/2015	VOCs	8260	92272895
DS-39 (23-25)	DS-39 (23-25)	10/21/2015	VOCs	8260	92272895
DS-39 (28-30)	DS-39 (28-30)	10/21/2015	VOCs	8260	92272895
DS-40 (0-2)	DS-40 (0-2)	10/21/2015	VOCs	8260	92272895
DS-40 (3-5)	DS-40 (3-5)	10/21/2015	VOCs	8260	92272895
DS-42 (0-2)	DS-42 (0-2)	10/21/2015	VOCs	8260	92272895
DS-42 (3-5)	DS-42 (3-5)	10/21/2015	VOCs	8260	92272895
DS-43 (0-2)	DS-43 (0-2)	10/21/2015	VOCs	8260	92272895
DS-43 (3-5)	DS-43 (3-5)	10/21/2015	VOCs	8260	92272895
DS-45 (0-2)	DS-45 (0-2)	10/21/2015	VOCs	8260	92272895
DS-45 (3-5)	DS-45 (3-5)	10/21/2015	VOCs	8260	92272895
DS-46 (0-2)	DS-46 (0-2)	10/21/2015	VOCs	8260	92272895
DS-46 (3-5)	DS-46 (3-5)	10/21/2015	VOCs	8260	92272895
DS-47 (0-2)	DS-47 (0-2)	10/21/2015	VOCs	8260	92272895
DS-47 (3-5)	DS-47 (3-5)	10/21/2015	VOCs	8260	92272895
DS-48 (0-2)	DS-48 (0-2)	10/21/2015	VOCs	8260	92272895
DS-48 (3-5)	DS-48 (3-5) [(a)]	10/21/2015	VOCs	8260	92272895
DS-49 (0-2)	DS-49 (0-2)	10/21/2015	VOCs	8260	92272895
DS-49 (3-5)	DS-49 (3-5)	10/21/2015	VOCs	8260	92272895
DS-49 (8-10)	DS-49 (8-10)	10/21/2015	VOCs	8260	92272895
DS-49 (13-15)	DS-49 (13-15)	10/21/2015	VOCs	8260	92272895
DS-50 (0-2)	DS-50 (0-2)	10/21/2015	VOCs	8260	92272895
DS-50 (3-5)	DS-50 (3-5)	10/21/2015	VOCs	8260	92272895
DS-50 (8-10)	DS-50 (8-10)	10/21/2015	VOCs	8260	92272895
DS-50 (13-15)	DS-50 (13-15)	10/21/2015	VOCs	8260	92272895

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
OCTOBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
QUALITY CONTROL SAMPLES					
--	FB-01	10/19/2015	VOCs	8260	92272410
--	FB-02	10/20/2015	VOCs	8260	92272696
--	FB-03	10/21/2015	VOCs	8260	92272895
--	Trip Blank 01	10/19/2015	VOCs	8260	92272410
--	Trip Blank 02	10/19/2015	VOCs	8260	92272410
--	Trip Blank 03	10/20/2015	VOCs	8260	92272696
--	Trip Blank 04	10/20/2015	VOCs	8260	92272696
--	Trip Blank 05	10/20/2015	VOCs	8260	92272696
--	Trip Blank 06	10/20/2015	VOCs	8260	92272895
--	Trip Blank 07	10/21/2015	VOCs	8260	92272895
--	Trip Blank 08	10/21/2015	VOCs	8260	92272895

Notes:

[(a)] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (VOCs).
Samples were analyzed by Pace Analytical Laboratories located in Charlotte, North Carolina.
SDG = Sample Delivery Group
VOCs = Volatile Organic Compounds

Prepared by/Date: LWC 1-14-16
Checked by/Date: JAH 02-05-16

TABLE 2
VALIDATION QUALIFIER SUMMARY
OCTOBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

MATRIX	SAMPLE ID	SAMPLE DATE	SDG_ID	METHOD	PARAMETER	UNITS	LAB RESULT	LAB QUALIFIER	VALIDATION RESULT	VALIDATION QUALIFIER	REASON CODE
S	DS-1 (18-20)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	7.2	J	20.5	U	BL2
S	DS-1 (23-25)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	5.8	J	21.6	U	BL2
S	DS-1 (28-30)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	8	J	23.5	U	BL2
S	DS-3 (18-20)	10/19/2015	92272410	8260	Acetone	µg/kg	59.4	J	107	U	BL2
S	DS-3 (18-20)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	8.8	J	21.3	U	BL2
S	DS-3 (23-25)	10/19/2015	92272410	8260	Acetone	µg/kg	19.9	J	118	U	BL2
S	DS-3 (23-25)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	9.8	J	23.7	U	BL2
S	DS-3 (28-30)	10/19/2015	92272410	8260	2-Butanone	µg/kg	6.7	J	120	U	BL2
S	DS-3 (28-30)	10/19/2015	92272410	8260	Acetone	µg/kg	18.4	J	120	U	BL2
S	DS-3 (28-30)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	6.8	J	24.1	U	BL2
S	DS-3 (28-30)	10/19/2015	92272410	8260	Toluene	µg/kg	2.8	J	6	U	BL2
S	DS-4A (18-20)	10/19/2015	92272410	8260	1,2,3-Trichlorobenzene	µg/kg	5.4	U, M1	5.4	UJ	MS-L
S	DS-4A (18-20)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	5.5	J, M1	21.5	U	BL2
S	DS-4A (23-25)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	13.3	J	21.4	U	BL2
S	DS-4A (28-30)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	7.4	J	19.4	U	BL2
S	DS-4A (28-30)	10/19/2015	92272410	8260	Toluene	µg/kg	4.3	J	4.9	U	BL2
S	DS-5 (18-20)	10/19/2015	92272410	8260	2-Butanone	µg/kg	17	J	115	U	BL2
S	DS-5 (18-20)	10/19/2015	92272410	8260	Acetone	µg/kg	19.3	J	115	U	BL2
S	DS-5 (18-20)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	5.3	J	23.1	U	BL2
S	DS-6 (23-25)	10/19/2015	92272410	8260	2-Butanone	µg/kg	18.8	J	161	U	BL2
S	DS-6 (23-25)	10/19/2015	92272410	8260	Acetone	µg/kg	27.6	J	161	U	BL2
S	DS-6 (23-25)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	9.3	J	32.1	U	BL2
S	DS-6 (23-25)	10/19/2015	92272410	8260	Toluene	µg/kg	3.3	J	8	U	BL2
S	DS-10 (0-2)	10/19/2015	92272410	8260	2-Butanone	µg/kg	13.2	J	109	U	BL2
S	DS-10 (0-2)	10/19/2015	92272410	8260	Acetone	µg/kg	19.3	J	109	U	BL2
S	DS-10 (0-2)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	7.8	J	21.7	U	BL2
S	DS-10 (13-15)	10/19/2015	92272410	8260	Acetone	µg/kg	16.8	J, B	66.9	U	BL2
S	DS-10 (13-15)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	2.4	J	13.4	U	BL2
S	DS-10 (3-5)	10/19/2015	92272410	8260	2-Butanone	µg/kg	15.8	J	99	U	BL2
S	DS-10 (3-5)	10/19/2015	92272410	8260	Acetone	µg/kg	28.7	J	99	U	BL2
S	DS-10 (3-5)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	9.1	J	19.8	U	BL2
S	DS-10 (3-5)	10/19/2015	92272410	8260	Toluene	µg/kg	1.9	J	4.9	U	BL2
S	DS-10 (8-10)	10/19/2015	92272410	8260	2-Butanone	µg/kg	12.5	J	109	U	BL2
S	DS-10 (8-10)	10/19/2015	92272410	8260	Acetone	µg/kg	22.6	J	109	U	BL2
S	DS-10 (8-10)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	4.9	J	21.8	U	BL2
S	DS-10 (8-10)	10/19/2015	92272410	8260	Toluene	µg/kg	2.2	J	5.4	U	BL2
S	DS-13 (0-2)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	7.4	J	21.9	U	BL2
S	DS-13 (13-15)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	7.5	J	20.9	U	BL2
S	DS-13 (3-5)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	4.6	J	26.2	U	BL2
S	DS-13 (3-5)	10/19/2015	92272410	8260	Toluene	µg/kg	2.5	J	6.6	U	BL2
S	DS-13 (8-10)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	5.4	J	23.4	U	BL2
S	DS-14 (0-2)	10/19/2015	92272410	8260	1,1,2,2-Tetrachloroethane	µg/kg	4.8	U, M1	4.8	UJ	MS-L
S	DS-14 (0-2)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	5.2	J	19.1	U	BL2
S	DS-14 (0-2)	10/19/2015	92272410	8260	Vinyl Acetate	µg/kg	47.7	U, M1	47.7	UJ	MS-L
S	DS-14 (13-15)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	9.5	J, M1	25.8	U	BL2
S	DS-14 (3-5)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	6.9	J	23.5	U	BL2
S	DS-14 (8-10)	10/19/2015	92272410	8260	Methylene Chloride	µg/kg	9	J	26.8	U	BL2
S	DS-16 (18-20)	10/19/2015	92272696	8260	Acetone	µg/kg	22.1	J	130	U	BL2
S	DS-16 (18-20)	10/19/2015	92272696	8260	Methylene Chloride	µg/kg	12.9	J	26	U	BL2
S	DS-16 (23-25)	10/19/2015	92272696	8260	Acetone	µg/kg	44.4	J	117	U	BL2
S	DS-16 (23-25)	10/19/2015	92272696	8260	Methylene Chloride	µg/kg	16.2	J	23.3	U	BL2
S	DS-16 (28-30)	10/19/2015	92272696	8260	Acetone	µg/kg	14	J	108	U	BL2
S	DS-16 (28-30)	10/19/2015	92272696	8260	Methylene Chloride	µg/kg	14.7	J	21.5	U	BL2
S	DS-17 (18-20)	10/20/2015	92272696	8260	Acetone	µg/kg	36.8	J	132	U	BL2
S	DS-17 (18-20)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	9.9	J	26.5	U	BL2
S	DS-17 (18-20)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	66.2	U, L2	66.2	UJ	LCS-L
S	DS-17 (23-25)	10/20/2015	92272696	8260	Acetone	µg/kg	18.8	J, M1	114	U	BL2
S	DS-17 (23-25)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	5.6	J	22.9	U	BL2
S	DS-17 (23-25)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	57.2	U, L2	57.2	UJ	LCS-L
S	DS-17 (28-30)	10/20/2015	92272696	8260	Acetone	µg/kg	17.1	J	116	U	BL2
S	DS-17 (28-30)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	57.9	U, L2	57.9	UJ	LCS-L
S	DS-20 (0-2)	10/20/2015	92272696	8260	Acetone	µg/kg	85.3	J	105	U	BL2
S	DS-20 (0-2)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	8.7	J	21	U	BL2
S	DS-20 (0-2)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	52.6	U, L2	52.6	UJ	LCS-L
S	DS-20 (3-5)	10/20/2015	92272696	8260	Acetone	µg/kg	13	J	110	U	BL2
S	DS-20 (3-5)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	6.2	J	22.1	U	BL2
S	DS-20 (3-5)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	55.2	U, L2	55.2	UJ	LCS-L
S	DS-20 (8-10)	10/20/2015	92272696	8260	Acetone	µg/kg	39.1	J	138	U	BL2
S	DS-20 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	8.7	J	27.6	U	BL2
S	DS-20 (8-10)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	69.1	U, L2	69.1	UJ	LCS-L
S	DS-20 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	28.1	J	133	U	BL2
S	DS-20 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	6.3	J	26.6	U	BL2
S	DS-20 (13-15)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	66.5	U, L2	66.5	UJ	LCS-L
S	DS-20 (18-20)	10/20/2015	92272696	8260	Acetone	µg/kg	17	J	113	U	BL2
S	DS-20 (18-20)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	3.8	J	22.5	U	BL2
S	DS-20 (18-20)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	56.3	U, L2	56.3	UJ	LCS-L
S	DS-20 (23-25)	10/20/2015	92272696	8260	Acetone	µg/kg	14.8	J	130	U	PJ
S	DS-20 (23-25)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	7.2	J	26	U	BL2
S	DS-20 (23-25)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	64.9	U, L2	64.9	UJ	LCS-L
S	DS-20 (28-30)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	6.8	J	19.9	U	BL2
S	DS-21 (0-2)	10/20/2015	92272696	8260	Acetone	µg/kg	14.9	J	137	U	BL2
S	DS-21 (0-2)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	15.9	J	27.4	U	BL2
S	DS-21 (3-5)	10/20/2015	92272696	8260	Acetone	µg/kg	53.2	J	170	U	BL2
S	DS-21 (3-5)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	7.7	J	34	U	BL2
S	DS-21 (3-5)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	84.9	U, L2	84.9	UJ	LCS-L
S	DS-22 (8-10)	10/20/2015	92272696	8260	Acetone	µg/kg	33.3	J	122	U	BL2
S	DS-22 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	4.9	J	24.4	U	BL2

TABLE 2
VALIDATION QUALIFIER SUMMARY
OCTOBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

MATRIX	SAMPLE ID	SAMPLE DATE	SDG_ID	METHOD	PARAMETER	UNITS	LAB RESULT	LAB QUALIFIER	VALIDATION RESULT	VALIDATION QUALIFIER	REASON CODE
S	DS-22 (8-10)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	61.1	U, L2	61.1	UJ	LCS-L
S	DS-22 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	23.7	J	109	U	PJ
S	DS-22 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	7.4	J	21.8	U	BL2
S	DS-22 (13-15)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	54.4	U, L2	54.4	UJ	LCS-L
S	DS-23 (0-2)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	9.5	J	26.4	U	BL2
S	DS-23 (0-2)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	66.1	U, L2	66.1	UJ	LCS-L
S	DS-23 (3-5)	10/20/2015	92272696	8260	Acetone	µg/kg	14.9	J	120	U	BL2
S	DS-23 (3-5)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	6.5	J	24	U	BL2
S	DS-23 (3-5)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	60	U, L2	60	UJ	LCS-L
S	DS-24 (0-2)	10/20/2015	92272696	8260	Acetone	µg/kg	49.7	J	138	U	BL2
S	DS-24 (0-2)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	5	J	27.5	U	BL2
S	DS-24 (0-2)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	68.8	U, L2	68.8	UJ	LCS-L
S	DS-24 (3-5)	10/20/2015	92272696	8260	Acetone	µg/kg	36.3	J	125	U	BL2
S	DS-24 (3-5)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	7	J	25	U	BL2
S	DS-24 (3-5)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	62.6	U, L2	62.6	UJ	LCS-L
S	DS-26 (3-5)	10/20/2015	92272696	8260	Acetone	µg/kg	12.1	J	90.9	U	PJ
S	DS-26 (3-5)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	6.9	J	18.2	U	BL2
S	DS-26 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	5.2	J	20	U	BL2
S	DS-26 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	8.6	J	83.1	U	PJ
S	DS-26 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	8.6	J	83.1	U	PJ
S	DS-26 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	4.6	J	16.6	U	BL2
S	DS-26 (18-20)	10/20/2015	92272696	8260	Acetone	µg/kg	18.4	J	94.9	U	PJ
S	DS-26 (18-20)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	7.5	J	19	U	BL2
S	DS-26 (23-25)	10/20/2015	92272696	8260	Acetone	µg/kg	49.2	J	122	U	PJ
S	DS-26 (23-25)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	23.2	J	24.3	U	BL2
S	DS-26 (28-30)	10/20/2015	92272696	8260	Acetone	µg/kg	16.7	J	104	U	PJ
S	DS-26 (28-30)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	10.2	J	20.7	U	BL2
S	DS-27 (0-2)	10/20/2015	92272696	8260	Acetone	µg/kg	13.4	J	97.3	U	BL2
S	DS-27 (0-2)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	10.8	J	19.5	U	BL2
S	DS-27 (3-5)	10/20/2015	92272696	8260	Acetone	µg/kg	31.3	J	107	U	BL2
S	DS-27 (3-5)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	4.3	J	21.4	U	BL2
S	DS-27 (3-5)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	53.6	U, L2	53.6	UJ	LCS-L
S	DS-27 (8-10)	10/20/2015	92272696	8260	Acetone	µg/kg	15	J	116	U	BL2
S	DS-27 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	5.5	J	23.2	U	BL2
S	DS-27 (8-10)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	58	U, L2	58	UJ	LCS-L
S	DS-27 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	16.6	J	110	U	BL2
S	DS-27 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	6.7	J	22	U	BL2
S	DS-27 (13-15)	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	55	U, L2	55	UJ	LCS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	1,2,3-Trichlorobenzene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	1,2,4-Trichlorobenzene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	1,2-Dichlorobenzene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	1,3-Dichlorobenzene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	1,4-Dichlorobenzene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	Acetone	µg/kg	27.7	J	98.4	U	BL2
S	DS-28 (0-2)	10/20/2015	92272895	8260	Hexachloro-1,3-butadiene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	Methylene Chloride	µg/kg	13.6	J	19.7	U	BL2
S	DS-28 (0-2)	10/20/2015	92272895	8260	Naphthalene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	Tetrachloroethene	µg/kg	2.7	J, M1	2.7	J	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	n-Butylbenzene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (0-2)	10/20/2015	92272895	8260	p-Isopropyltoluene	µg/kg	4.9	U, M1	4.9	UJ	MS-L
S	DS-28 (3-5)	10/20/2015	92272895	8260	Acetone	µg/kg	13.6	J	95.9	U	BL2
S	DS-28 (3-5)	10/20/2015	92272895	8260	Methylene Chloride	µg/kg	7.4	J	19.2	U	BL2
S	DS-28 (18-20)	10/20/2015	92272895	8260	Acetone	µg/kg	16.6	J	108	U	BL2
S	DS-28 (18-20)	10/20/2015	92272895	8260	Methylene Chloride	µg/kg	7.2	J	21.7	U	BL2
S	DS-28 (23-25)	10/20/2015	92272895	8260	1,1,2-Trichloroethane	µg/kg	7.9	U, L2	7.9	UJ	LCS-L
S	DS-28 (23-25)	10/20/2015	92272895	8260	Acetone	µg/kg	33.2	J	158	U	BL2
S	DS-28 (23-25)	10/20/2015	92272895	8260	Methylene Chloride	µg/kg	17.5	J	31.7	U	BL2
S	DS-28 (28-30)	10/20/2015	92272895	8260	1,1,2-Trichloroethane	µg/kg	6.3	U, L2	6.3	UJ	LCS-L
S	DS-28 (28-30)	10/20/2015	92272895	8260	Acetone	µg/kg	19.4	J	126	U	BL2
S	DS-28 (28-30)	10/20/2015	92272895	8260	Methylene Chloride	µg/kg	12.3	J	25.2	U	BL2
S	DS-31 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	9.8	J	26.3	U	BL2
S	DS-31 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	39.6	J	152	U	BL2
S	DS-31 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	23.2	J	30.3	U	BL2
S	DS-33 (8-10)	10/20/2015	92272696	8260	Acetone	µg/kg	27.3	J	116	U	BL2
S	DS-33 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	7.3	J	23.2	U	BL2
S	DS-33 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	9.3	J	20.7	U	BL2
S	DS-34 (8-10)	10/20/2015	92272696	8260	Acetone	µg/kg	27.8	J	119	U	BL2
S	DS-34 (8-10)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	10.3	J	23.8	U	BL2
S	DS-34 (13-15)	10/20/2015	92272696	8260	Acetone	µg/kg	24.1	J	137	U	BL2
S	DS-34 (13-15)	10/20/2015	92272696	8260	Methylene Chloride	µg/kg	14.7	J	27.3	U	BL2
S	DS-36A (23-25)	10/21/2015	92272895	8260	Acetone	µg/kg	33.6	J	131	U	BL2
S	DS-36A (23-25)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	12.7	J	26.2	U	BL2
S	DS-37 (18-20)	10/21/2015	92272895	8260	Acetone	µg/kg	24.4	J	119	U	BL2
S	DS-37 (18-20)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	17.5	J	23.8	U	BL2
S	DS-37 (23-25)	10/21/2015	92272895	8260	Acetone	µg/kg	22.1	J	129	U	BL2
S	DS-37 (23-25)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	10.3	J	25.7	U	BL2
S	DS-37 (28-30)	10/21/2015	92272895	8260	Acetone	µg/kg	23.9	J	126	U	BL2
S	DS-37 (28-30)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	13.5	J	25.2	U	BL2
S	DS-38 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	12.1	J	22.1	U	PJ
S	DS-38 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	6.4	J	22.6	U	BL2
S	DS-38 (18-20)	10/21/2015	92272895	8260	Acetone	µg/kg	56.8	J	143	U	PJ
S	DS-38 (18-20)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	31	C9	31	U	BL2
S	DS-38 (18-20)	10/21/2015	92272895	8260	Tetrachloroethene	µg/kg	31.6	D6	31.6	J	LD
S	DS-38 (18-20)	10/21/2015	92272895	8260	cis-1,2-Dichloroethene	µg/kg	15	D6	15	J	LD
S	DS-38 (23-25)	10/21/2015	92272895	8260	Acetone	µg/kg	14.8	J, M1	107	U	PJ
S	DS-38 (23-25)	10/21/2015	92272895	8260	Hexachloro-1,3-butadiene	µg/kg	5.3	U, M1	5.3	UJ	MS-L
S	DS-38 (23-25)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	16.6	J	21.4	U	BL2
S	DS-38 (28-30)	10/21/2015	92272895	8260	Acetone	µg/kg	13.5	J	116	U	PJ
S	DS-38 (28-30)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	10.1	J	23.1	U	PJ

TABLE 2
VALIDATION QUALIFIER SUMMARY
OCTOBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

MATRIX	SAMPLE ID	SAMPLE DATE	SDG_ID	METHOD	PARAMETER	UNITS	LAB RESULT	LAB QUALIFIER	VALIDATION RESULT	VALIDATION QUALIFIER	REASON CODE
S	DS-39 (0-2)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	5.7	U, L2	5.7	UJ	LCS-L
S	DS-39 (0-2)	10/21/2015	92272895	8260	Acetone	µg/kg	43.2	J	114	U	BL1
S	DS-39 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	5	J	22.8	U	BL2
S	DS-39 (0-2)	10/21/2015	92272895	8260	Tetrachloroethene	µg/kg	8	D6	8	J	LD
S	DS-39 (0-2)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	56.9	U, L2	56.9	UJ	LCS-L
S	DS-39 (3-5)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	5.5	U, L2	5.5	UJ	LCS-L
S	DS-39 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	7.5	J	22	U	BL2
S	DS-39 (3-5)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	55	U, L2	55	UJ	LCS-L
S	DS-39 (18-20)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	7.8	J	21.2	U	PJ
S	DS-39 (23-25)	10/21/2015	92272895	8260	Acetone	µg/kg	54.7	J	89	U	PJ
S	DS-39 (23-25)	10/21/2015	92272895	8260	Naphthalene	µg/kg	2.1	J, B	4.4	U	BL1
S	DS-39 (23-25)	10/21/2015	92272895	8260	Toluene	µg/kg	1.9	J	4.4	U	BL2
S	DS-39 (28-30)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	8.2	J	21.4	U	PJ
S	DS-40 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	8.9	J	19.8	U	BL2
S	DS-40 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	13.2	J	21.8	U	BL2
S	DS-42 (0-2)	10/21/2015	92272895	8260	Acetone	µg/kg	18.2	J	173	U	PJ
S	DS-42 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	8.2	J	34.7	U	BL2
S	DS-42 (3-5)	10/21/2015	92272895	8260	Acetone	µg/kg	20.8	J	131	U	PJ
S	DS-42 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	18	J	26.2	U	PJ
S	DS-43 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	6	J	18.7	U	PJ
S	DS-43 (3-5)	10/21/2015	92272895	8260	Acetone	µg/kg	48.6	J	107	U	PJ
S	DS-43 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	10.7	J	21.4	U	BL2
S	DS-45 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	13.8	J	24.3	U	BL2
S	DS-45 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	6.5	J	21.3	U	PJ
S	DS-46 (0-2)	10/21/2015	92272895	8260	Acetone	µg/kg	37.9	J	88.6	U	PJ
S	DS-46 (0-2)	10/21/2015	92272895	8260	2-Butanone	µg/kg	11.8	J	88.6	U	BL2
S	DS-46 (3-5)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	5.6	U, L2	5.6	UJ	LCS-L
S	DS-46 (3-5)	10/21/2015	92272895	8260	Acetone	µg/kg	25.1	J	111	U	BL1
S	DS-46 (3-5)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	55.6	U, L2	55.6	UJ	LCS-L
S	DS-47 (0-2)	10/21/2015	92272895	8260	Acetone	µg/kg	41.1	J	139	U	PJ
S	DS-47 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	13.2	J	27.9	U	PJ
S	DS-47 (3-5)	10/21/2015	92272895	8260	Acetone	µg/kg	26.2	J	180	U	PJ
S	DS-47 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	21.3	J	36	U	PJ
S	DS-48 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	6.8	J	19.6	U	PJ
S	DS-48 (3-5)	10/21/2015	92272895	8260	Acetone	µg/kg	10.6	J, M1	85.4	U	PJ
S	DS-48 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	10.9	J, M1	17.1	U	PJ
S	DS-49 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	7.6	J	20.5	U	BL2
S	DS-49 (3-5)	10/21/2015	92272895	8260	Acetone	µg/kg	96.1	J	128	U	BL2
S	DS-49 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	14.3	J	25.6	U	BL2
S	DS-49 (3-5)	10/21/2015	92272895	8260	Toluene	µg/kg	8.4		8.4	U	BL2
S	DS-49 (8-10)	10/21/2015	92272895	8260	Acetone	µg/kg	60.8	J	118	U	PJ
S	DS-49 (8-10)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	11.1	J	23.6	U	PJ
S	DS-49 (8-10)	10/21/2015	92272895	8260	Toluene	µg/kg	2.9	J	5.9	U	BL2
S	DS-49 (13-15)	10/21/2015	92272895	8260	Acetone	µg/kg	18.7	J	116	U	PJ
S	DS-49 (13-15)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	8.6	J	23.2	U	PJ
S	DS-50 (0-2)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	5.5	U, L2	5.5	UJ	LCS-L
S	DS-50 (0-2)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	4	J	22	U	BL2
S	DS-50 (0-2)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	55	U, L2	55	UJ	LCS-L
S	DS-50 (3-5)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	8	U, L2	8	UJ	LCS-L
S	DS-50 (3-5)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	18.3	J	32	U	BL2
S	DS-50 (3-5)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	80.1	U, L2	80.1	UJ	LCS-L
S	DS-50 (8-10)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	9.2	U, L2	9.2	UJ	LCS-L
S	DS-50 (8-10)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	12	J	37	U	BL2
S	DS-50 (8-10)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	92.5	U, L2	92.5	UJ	LCS-L
S	DS-50 (13-15)	10/21/2015	92272895	8260	1,1,2,2-Tetrachloroethane	µg/kg	7.6	U, L2	7.6	UJ	LCS-L
S	DS-50 (13-15)	10/21/2015	92272895	8260	Methylene Chloride	µg/kg	7.4	J	30.4	U	BL2
S	DS-50 (13-15)	10/21/2015	92272895	8260	Vinyl Acetate	µg/kg	75.9	U, L2	75.9	UJ	LCS-L
S	DS7-(8-10)	10/19/2015	92272696	8260	Acetone	µg/kg	37	J	155	U	BL2
S	DS7-(8-10)	10/19/2015	92272696	8260	Methylene Chloride	µg/kg	18.6	J	31	U	BL2
S	DS7-(13-15)	10/19/2015	92272696	8260	Acetone	µg/kg	22.6	J	132	U	BL2
S	DS7-(13-15)	10/19/2015	92272696	8260	Methylene Chloride	µg/kg	10.7	J	26.5	U	BL2
S	DS7-(13-15)	10/19/2015	92272696	8260	Toluene	µg/kg	2.8	J	6.6	U	BL2
W	FB-02	10/20/2015	92272696	8260	Methylene Chloride	µg/L	2.1		2.1	UJ	BL2
S	Trip Blank 04	10/20/2015	92272696	8260	Vinyl Acetate	µg/kg	50	U, L2	50	UJ	LCS-L

Notes:

Prepared by / Date: LWC 1/12/16
Checked by / Date: JAH 02/05/16

Laboratory qualifiers that *did not change* as a result of the data validation are not shown on this table.
B - Analyte was detected in the associated method blank.
BL1 - Concentration in sample less than 5 times (10 times for common contaminants) concentration in method blank sample.
BL2 - Concentration in sample less than 5 times (10 times for common contaminants) concentration in field blank, rinse blank or trip blank sample.
C9 - Common Laboratory Contaminant.
D6 - The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
J - Value is estimated.
L2 - Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
LCS-L - Concentration in sample is considered estimated possibly biased low due to low Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) recoveries.
LD - Laboratory Duplicate limit exceeded.
M1 - Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
µg/kg - microgram per kilogram
MS-L - Matrix spike (MS)/Matrix spike duplicate (MSD) recovery less than the QC limits.
U - not detected, value is the detection limit
S - Soil
PJ - Result qualified based on Professional Judgment

Boone, North Carolina
AMEC Project 6251121001.03.01

Constituents	DS-14 (8-10) (1587445)	1587445 Duplicate	RPD (%)	DS-1 (28-30) (1588708)	1588708 Duplicate	RPD (%)	DS-17 (18-20) (1589594)	1589594 Duplicate	RPD (%)	DS-20 (28-30) (1590296)	1590296 Duplicate	RPD (%)	DS-38 (18-20) (1591246)	1591246 Duplicate	RPD (%)	DS-39 (0-2) (1592107)	1592107 Duplicate	RPD (%)	DS-49 (8-10) (1591243)	1591243 Duplicate	RPD (%)
Acetone	32.1 J	54.3 J	--	19.6 J	19.8 J	--	36.8 J	56.1 J	--	ND	21.0 J	--	56.8 J	63.2 J	--	43.2 J	45.3 J	--	18.7 J	23.3 J	--
2-Butanone	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	27.9 J	25.3 J	--	ND	ND	--
cis-1,2-Dichloroethene	ND	ND	--	ND	ND	--	ND	ND	--	2.9 J	3.6 J	--	15	9.3	46.9	ND	ND	--	ND	ND	--
1,4-Dioxane	ND	ND	--	ND	ND	--	ND	ND	--	488	500	2.4	ND	ND	--	ND	ND	--	ND	ND	--
Methylene Chloride	9.0 J	7.2 J	--	8.0 J	5.5 J	--	9.9 J	8.5 J	--	6.8 J	11.8 J	--	31	13.8 J	--	5.0 J	ND	--	8.6 J	3.8 J	--
Naphthalene	ND	1.6 J	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--
Tetrachloroethene	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	31.6	15.5	68.4	8.0	15.1	61.5	ND	ND	--
Trichloroethene	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	7.6	3.9 J	--	ND	3.2 J	--	ND	ND	--

Notes:
Units in micrograms per kilogram (µg/kg).
J = Value estimated, less than the reporting limit.
ND = Not Detected.

Prepared By/Date: LWC 1/12/16
Checked By/Date: JAH 2/17/16

DATA VALIDATION RECORD

Method SW8260 for VOCs
Project Name and No: RBTC Boone; 6251121001.03.01
Laboratory and SDG: Pace Analytical, 92272410
Data Validation Level: II
Date: 1/12/2016
Reviewer: L. Clem Senior Reviewer: J. Hartness 02/04/16
Samples Reviewed: DS-1 (18-20), DS-1 (23-25), DS-1 (28-30), DS-3 (18-20), DS-3 (23-25), DS-3 (28-30), DS-4A (18-20), DS-4A (23-25), DS-4A (28-30), DS-5 (18-20), DS-6 (23-25), DS-10 (0-2), DS-10 (3-5), DS-10 (8-10), DS-10 (13-15), DS-13 (0-2), DS-13 (3-5), DS-13 (8-10), DS-13 (13-15), DS-14 (0-2), DS-14 (3-5), DS-14 (8-10), DS-14 (13-15), FB-01, Trip Blank 01, and Trip Blank 02.

1. Case Narrative and COC review

Case Narrative (pgs. 6-9 of data package) and COC (pgs. 96-98 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (water samples Preserved with Hydrochloric Acid (HCl); soil samples preserved with sodium bisulfate, deionized water, or methanol; Cool to 4 ºC), Holding time (14 days)

Samples analyzed for VOCs preserved; cooler temp 4.0ºC, per "Sample/Cooler Receipt Checklist" pg. 95 of Summary. Samples collected: 10/20/15; Samples Prepped and Analyzed: 10/20/15, 10/21/15, 10/23/15.

3. Instrument Tuning

Not required for Level II.

4. Instrument Calibration

Not required for Level II.

5. Calibration range

Not required for Level II.

6. QC Blanks

Method Blanks:

Pgs. 65-66, 10/20/15, MB-1586528, All non-detect.

Pgs. 62-63, 10/23/15, MB-1590879, m&p-Xylene=0.86J ug/L x 5=4.3 ug/L.
Associated sample was non-detect – no flags.

Pgs. 72-73, 10/20/15, MB-1586533, Naphthalene=1.9J ug/kg x 5=9.5 ug/kg. Associated samples were non-detect – no flags.

Pgs. 79-80, 10/21/15, MB-1587568, All non-detect.

Pgs. 86-87, 10/21/15, MB-1587603, Naphthalene=1.5J ug/kg x 5=7.5 ug/kg. Associated samples were non-detect – no flags.

Field Blank

Pgs. 10-11, FB-01, All non-detect.

Rinse Blanks

Rinse blanks were not included in this SDG.

Trip Blanks

Pgs. 12-13, Trip Blank 01, 10/19/15, Methylene chloride=5.2J ug/kg x 10=52 ug/kg, Toluene=3.0J ug/kg x 5=15 ug/kg. Associated samples 92272410001-17

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-1 (18-20)	Methylene Chloride	7.2 J	U at RL of 20.5*
DS-1 (23-25)	Methylene Chloride	5.8 J	U at RL of 21.6*
DS-1 (28-30)	Methylene Chloride	8 J	U at RL of 23.5*
DS-3 (18-20)	Methylene Chloride	8.8 J	U at RL of 21.3*
DS-13 (0-2)	Methylene Chloride	7.4 J	U at RL of 21.9*
DS-13 (13-15)	Methylene Chloride	7.5 J	U at RL of 20.9*
DS-13 (3-5)	Methylene Chloride	4.6 J	U at RL of 26.2*
DS-13 (3-5)	Toluene	2.5 J	U at RL of 6.6*
DS-13 (8-10)	Methylene Chloride	5.4 J	U at RL of 23.4*
DS-14 (0-2)	Methylene Chloride	5.2 J	U at RL of 19.1*
DS-14 (13-15)	Methylene Chloride	9.5 J, M1	U at RL of 25.8*
DS-14 (3-5)	Methylene Chloride	6.9 J	U at RL of 23.5*
DS-14 (8-10)	Methylene Chloride	9 J	U at RL of 26.8*
DS-4A (18-20)	Methylene Chloride	5.5 J, M1	U at RL of 21.5*
DS-4A (23-25)	Methylene Chloride	13.3 J	U at RL of 21.4*
DS-4A (28-30)	Methylene Chloride	7.4 J	U at RL of 19.4*
DS-4A (28-30)	Toluene	4.3 J	U at RL of 4.9*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 48-49, Trip Blank 02, 10/19/15, Acetone=12.5J ug/kg x 10=125 ug/kg, 2-Butanone=11.2J ug/kg x 10=112 ug/kg, Methylene chloride=5.1J ug/kg x 10=51 ug/kg, Toluene=2.6J ug/kg x 5=13 ug/kg. Associated samples 92272410018-26

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-10 (0-2)	2-Butanone	13.2 J	U at RL of 109*
DS-10 (3-5)	2-Butanone	15.8 J	U at RL of 99*
DS-10 (8-10)	2-Butanone	12.5 J	U at RL of 109*
DS-3 (28-30)	2-Butanone	6.7 J	U at RL of 120*
DS-5 (18-20)	2-Butanone	17 J	U at RL of 115*
DS-6 (23-25)	2-Butanone	18.8 J	U at RL of 161*
DS-10 (0-2)	Acetone	19.3 J	U at RL of 109*
DS-10 (13-15)	Acetone	16.8 J, B	U at RL of 66.9*
DS-10 (3-5)	Acetone	28.7 J	U at RL of 99*
DS-10 (8-10)	Acetone	22.6 J	U at RL of 109*
DS-3 (23-25)	Acetone	19.9 J	U at RL of 118*
DS-3 (28-30)	Acetone	18.4 J	U at RL of 120*
DS-5 (18-20)	Acetone	19.3 J	U at RL of 115*
DS-6 (23-25)	Acetone	27.6 J	U at RL of 161*
DS-10 (0-2)	Methylene Chloride	7.8 J	U at RL of 21.7*
DS-10 (13-15)	Methylene Chloride	2.4 J	U at RL of 13.4*
DS-10 (3-5)	Methylene Chloride	9.1 J	U at RL of 19.8*
DS-10 (8-10)	Methylene Chloride	4.9 J	U at RL of 21.8*
DS-3 (23-25)	Methylene Chloride	9.8 J	U at RL of 23.7*
DS-3 (28-30)	Methylene Chloride	6.8 J	U at RL of 24.1*
DS-5 (18-20)	Methylene Chloride	5.3 J	U at RL of 23.1*
DS-6 (23-25)	Methylene Chloride	9.3 J	U at RL of 32.1*
DS-10 (3-5)	Toluene	1.9 J	U at RL of 4.9*
DS-10 (8-10)	Toluene	2.2 J	U at RL of 5.4*
DS-3 (28-30)	Toluene	2.8 J	U at RL of 6*
DS-6 (23-25)	Toluene	3.3 J	U at RL of 8*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

7. Laboratory Control Sample (LCS) Results (Lab limits)

Pgs. 63-64, LCS-1590880,

Compound	LCS%Rec	Flag	Reason Code
Hexachloro-1,3-butadiene	131	J positive	LCS-H

Hexachloro-1,3-butadiene not detected – no flags.

Pgs. 66-68, LCS-1586529, LCS within limits.

Pgs. 73-75, LCS-1586534,

Compound	LCS%Rec	Flag	Reason Code
2-Hexanone	154	J positive	LCS-H

2-Hexanone not detected – no flags.

Pgs. 81-82, LCS-1587569, LCS within limits.

8. Internal Standards (50 - 200 %)

Not required for Level II.

9. Surrogate Recovery (70-128%)

All surrogates within lab limits, with the exception of one surrogate.

Pgs. 52-53, Sample DS-10 (3-5),

Compound	Surrogate %Rec	Flag	Reason Code
1,2-Dichloroethane-d4	177%	J positive	SR

1,2-Dichloroethane not detected – no flags.

10. Field Duplicate Precision (≤ 50 %)

Field duplicates were not included in this SDG.

11. Laboratory Duplicate Precision (≤ 50 %)

Pgs. 70-71, 1587440 (non-project sample 92272128009) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	16.3 J	10.4 J	--	none
Methylene Chloride	3.3 J	ND	--	none

Pgs. 77-78, 1587445 (project sample 92272410005 [DS-14 (8-10)]) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	32.1 J	54.3 J	--	none
Methylene Chloride	9.0 J	7.2 J	--	none
Naphthalene	ND	1.6 J	--	none

Pgs. 84-85, 1588708 (project sample 92272410013 [DS-1 (28-30)]) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	19.6 J	19.8 J	--	none
Methylene Chloride	8.0 J	5.5 J	--	none

12. Matrix Spike/Matrix spike Duplicate (MS/MSD) (43-180 %/RPD ≤ 30 %)

Pgs. 68-69, MS-1587535, project sample 92272410003 [DS-14 (0-2)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,1,2,2-Tetrachloroethane	0	UJ	MS-L
2-Butanone	149	none	not detected
sec-Butylbenzene	134	none	not detected
Trichloroethene	187	none	not detected
Vinyl Acetate	22	UJ	MS-L

Pgs. 75-76, MS-1587446, project sample 92272410006 [DS-14 (13-15)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,4-Dioxane	139	none	not detected
2-Butanone	145	none	not detected
4-Methyl-2-pentanone	135	none	not detected
Bromomethane	137	none	not detected
Diisopropyl ether	133	none	not detected
Isopropylbenzene (Cumene)	132	none	not detected
Methylene Chloride	135	none	previously “U” flagged
sec-Butylbenzene	132	none	not detected
trans-1,2-Dichloroethene	132	none	not detected

Pgs. 82-83, MS-1588709, project sample 92272410014 [DS-4A (18-20)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,2,3-Trichlorobenzene	68	UJ	MS-L
1,3,5-Trimethylbenzene	135	none	not detected
1,4-Dioxane	147	none	not detected
2-Butanone	149	none	not detected
Bromomethane	131	none	not detected
Methylene Chloride	136	none	previously “U” flagged
n-Butylbenzene	132	none	not detected
n-Propylbenzene	143	none	not detected
p-Isopropyltoluene	138	none	not detected
sec-Butylbenzene	151	none	not detected

13. Raw Calculations

Not required for Level II.

14. Electronic Data Review

Ten percent of the EDD results for VOCs (samples DS-1 (23-25), DS-6 (23-25), DS-13 (8-10)) were compared to the laboratory data report to confirm accuracy of the EDD. Results listed in summary package were confirmed in the EDD.

DATA VALIDATION RECORD

Method SW8260 for VOCs
Project Name and No: RBTC Boone; 6251121001.03.01
Laboratory and SDG: Pace Analytical, 92272696
Data Validation Level: II
Date: 1/7/2016
Reviewer: L. Clem Senior Reviewer: J. Hartness 02/05/16
Samples Reviewed: DS7-(8-10), DS7-(13-15), DS-16-(18-20), DS-16-(23-25), DS-16(28-30), DS-17 (18-20), DS-17 (23-25), DS-17 (28-30), DS-20 (0-2), DS-20 (3-5), DS-20 (8-10), DS-20 (13-15), DS-20 (18-20), DS-20 (23-25), DS-20 (28-30), DS-21 (0-2), DS-21 (3-5), DS-22 (8-10), DS-22 (13-15), DS-23 (0-2), DS-23 (3-5), DS-24 (0-2), DS-24 (3-5), DS-26 (0-2), DS-26 (3-5), DS-26 (8-10), DS-26 (13-15), DS-26 (18-20), DS-26 (23-25), DS-26 (28-30), DS-27 (0-2), DS-27 (3-5), DS-27 (8-10), DS-27 (13-15), DS-31 (8-10), DS-31 (13-15), DS-33 (8-10), DS-33 (13-15), DS-34 (8-10), DS-34 (13-15), FB-02, Trip Blank 03, Trip Blank 04, and Trip Blank 05.

1. Case Narrative and COC review

Case Narrative (pgs. 8-12 of data package) and COC (pgs. 140-143 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (water samples Preserved with Hydrochloric Acid (HCl); soil samples preserved with sodium bisulfate, deionized water, or methanol; Cool to 4 ºC), Holding time (14 days)

Samples analyzed for VOCs preserved; cooler temp 5.3ºC, per “Sample/Cooler Receipt Checklist” pg. 139 of Summary. Samples collected: 10/19/15, 10/20/15; Samples Prepped and Analyzed: 10/22/15, 10/23/15, 10/25/15. The SCUR indicated that sample DS-27 (18-20) was not intact upon receipt; therefore, analysis of this sample was not performed.

3. Instrument Tuning

Not required for Level II.

4. Instrument Calibration

Not required for Level II.

5. Calibration range

Not required for Level II.

6. QC Blanks

Method Blanks:

Pgs. 101-102, 10/22/15, MB-1588835, All non-detect.

Pgs. 108-109, 10/22/15, MB-1588848, Naphthalene=1.7J ug/L x 5=8.5 ug/mg. Associated sample was non-detect – no flags.

Pgs. 112-112, 10/22/15, MB-1589140, All non-detect.

Pgs. 119-120, 10/22/15, MB-1589152, Naphthalene=1.6J ug/kg x 5=8.0 ug/kg. Associated samples were non-detect – no flags.

Pgs. 126-127, 10/23/15, MB-1590204, All non-detect.

Field Blank

Pgs. 25-26, FB-02, 10/20/15, Methylene chloride=2.1 ug/L x 10 = 21

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-17 (18-20)	Methylene Chloride	9.9 J	U at RL of 26.5*
DS-17 (23-25)	Methylene Chloride	5.6 J	U at RL of 22.9*
DS-20 (0-2)	Methylene Chloride	8.7 J	U at RL of 21*
DS-20 (3-5)	Methylene Chloride	6.2 J	U at RL of 22.1*
DS-20 (8-10)	Methylene Chloride	8.7 J	U at RL of 27.6*
DS-20 (13-15)	Methylene Chloride	6.3 J	U at RL of 26.6*
DS-20 (18-20)	Methylene Chloride	3.8 J	U at RL of 22.5*
DS-20 (23-25)	Methylene Chloride	7.2 J	U at RL of 26*
DS-20 (28-30)	Methylene Chloride	6.8 J	U at RL of 19.9*
DS-21 (0-2)	Methylene Chloride	15.9 J	U at RL of 27.4*
DS-21 (3-5)	Methylene Chloride	7.7 J	U at RL of 34*
DS-22 (8-10)	Methylene Chloride	4.9 J	U at RL of 24.4*
DS-22 (13-15)	Methylene Chloride	7.4 J	U at RL of 21.8*
DS-23 (0-2)	Methylene Chloride	9.5 J	U at RL of 26.4*
DS-23 (3-5)	Methylene Chloride	6.5 J	U at RL of 24*
DS-24 (0-2)	Methylene Chloride	5 J	U at RL of 27.5*
DS-24 (3-5)	Methylene Chloride	7 J	U at RL of 25*
DS-26 (3-5)	Methylene Chloride	6.9 J	U at RL of 18.2*
DS-26 (8-10)	Methylene Chloride	5.2 J	U at RL of 20*
DS-26 (13-15)	Methylene Chloride	4.6 J	U at RL of 16.6*
DS-26 (18-20)	Methylene Chloride	7.5 J	U at RL of 19*
DS-26 (23-25)	Methylene Chloride	23.2 J	U at RL of 24.3*
DS-26 (28-30)	Methylene Chloride	10.2 J	U at RL of 20.7*
DS-27 (0-2)	Methylene Chloride	10.8 J	U at RL of 19.5*
DS-27 (3-5)	Methylene Chloride	4.3 J	U at RL of 21.4*
DS-27 (8-10)	Methylene Chloride	5.5 J	U at RL of 23.2*
DS-27 (13-15)	Methylene Chloride	6.7 J	U at RL of 22*
DS-31 (8-10)	Methylene Chloride	9.8 J	U at RL of 26.3*
DS-31 (13-15)	Methylene Chloride	23.2 J	U at RL of 30.3*
DS-33 (8-10)	Methylene Chloride	7.3 J	U at RL of 23.2*
DS-33 (13-15)	Methylene Chloride	9.3 J	U at RL of 20.7*
DS-34 (8-10)	Methylene Chloride	10.3 J	U at RL of 23.8*
DS-34 (13-15)	Methylene Chloride	14.7 J	U at RL of 27.3*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Rinse Blanks

Rinse blanks were not included in this SDG.

Trip Blanks

Pgs. 23-24, Trip Blank 03, 10/20/15, Acetone=12.1J ug/kg x 10=121 ug/kg, 2-Butanone=10.9J ug/kg x 10=109 ug/kg, Methylene chloride=3.6J ug/kg x 10=36 ug/kg, Toluene=3.4J ug/kg x 5=17 ug/kg. 2-Butanone was not detected in associated samples.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS7-(8-10)	Acetone	37 J	U at RL of 155*
DS7-(8-10)	Methylene Chloride	18.6 J	U at RL of 31*
DS7-(13-15)	Acetone	22.6 J	U at RL of 132*
DS7-(13-15)	Methylene Chloride	10.7 J	U at RL of 26.5*
DS7-(13-15)	Toluene	2.8 J	U at RL of 6.6*
DS-16 (18-20)	Acetone	22.1 J	U at RL of 130*
DS-16 (18-20)	Methylene Chloride	12.9 J	U at RL of 26*
DS-16 (23-25)	Acetone	44.4 J	U at RL of 117*
DS-16 (23-25)	Methylene Chloride	16.2 J	U at RL of 23.3*
DS-16 (28-30)	Acetone	14 J	U at RL of 108*
DS-16 (28-30)	Methylene Chloride	14.7 J	U at RL of 21.5*
DS-21 (0-2)	Acetone	14.9 J	U at RL of 137*
DS-21 (0-2)	Methylene Chloride	15.9 J	U at RL of 27.4*
DS-21 (3-5)	Acetone	53.2 J	U at RL of 170*
DS-21 (3-5)	Methylene Chloride	7.7 J	U at RL of 34*
DS-27 (0-2)	Acetone	13.4 J	U at RL of 97.3*
DS-27 (0-2)	Methylene Chloride	10.8 J	U at RL of 19.5*
DS-27 (3-5)	Acetone	31.3 J	U at RL of 107*
DS-27 (3-5)	Methylene Chloride	4.3 J	U at RL of 21.4*
DS-31 (8-10)	Methylene Chloride	9.8 J	U at RL of 26.3*
DS-31 (13-15)	Acetone	39.6 J	U at RL of 152*
DS-31 (13-15)	Methylene Chloride	23.2 J	U at RL of 30.3*
DS-33 (8-10)	Acetone	27.3 J	U at RL of 116*
DS-33 (8-10)	Methylene Chloride	7.3 J	U at RL of 23.2*
DS-33 (13-15)	Methylene Chloride	9.3 J	U at RL of 20.7*
DS-34 (8-10)	Acetone	27.8 J	U at RL of 119*
DS-34 (8-10)	Methylene Chloride	10.3 J	U at RL of 23.8*
DS-34 (13-15)	Acetone	24.1 J	U at RL of 137*
DS-34 (13-15)	Methylene Chloride	14.7 J	U at RL of 27.3*
FB-02	Methylene Chloride	2.1 J	UJ

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 47-48, Trip Blank 04, 10/20/15, Acetone=15.5J ug/kg x 10=155 ug/kg, Toluene=2.8J ug/kg x 5=14 ug/kg. Toluene was not detected in associated samples.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-17 (18-20)	Acetone	36.8 J	U at RL of 132*
DS-17 (23-25)	Acetone	18.8 J, M1	U at RL of 114*
DS-17 (28-30)	Acetone	17.1 J	U at RL of 116*
DS-20 (0-2)	Acetone	85.3 J	U at RL of 105*

(cont.)
Pgs. 47-48, Trip Blank 04, 10/20/15, Acetone=15.5J ug/kg x 10=155 ug/kg, Toluene=2.8J ug/kg x 5=14 ug/kg. Toluene was not detected.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-20 (3-5)	Acetone	13 J	U at RL of 110*
DS-20 (8-10)	Acetone	39.1 J	U at RL of 138*
DS-20 (13-15)	Acetone	28.1 J	U at RL of 133*
DS-20 (18-20)	Acetone	17 J	U at RL of 113*
DS-22 (8-10)	Acetone	33.3 J	U at RL of 122*
DS-23 (3-5)	Acetone	14.9 J	U at RL of 120*
DS-24 (0-2)	Acetone	49.7 J	U at RL of 138*
DS-24 (3-5)	Acetone	36.3 J	U at RL of 125*
DS-27 (8-10)	Acetone	15 J	U at RL of 116*
DS-27 (13-15)	Acetone	16.6 J	U at RL of 110*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

Pgs. 85-86, Trip Blank 05, 10/20/15, Toluene=2.6J ug/kg x 5=13 ug/kg. Toluene was not detected – no flags.

7. Laboratory Control Sample (LCS) Results (Lab limits)

Pgs. 102-104, LCS-1588836, LCS within limits.

Pgs. 109-111, LCS-1588849, LCS within limits.

Pgs. 113-115, LCS-1589141, the following were outside QC limits:

Compound	LCS%Rec	Flag	Reason Code
Vinyl Acetate	25	J/UJ	LCS-L

Pgs. 120-122, LCS-1589153, LCS within limits.

Pgs. 127-129, LCS-1590205, LCS within limits.

8. Internal Standards (50 - 200 %)

Not required for Level II.

9. Surrogate Recovery (70-128%)

Pgs. 30-31, Sample DS-31 (13-15) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 83-84, Sample DS-20 (28-30) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 87-88, Sample DS-26 (0-2) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 97-98, Sample DS-26 (23-25) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

10. Field Duplicate Precision (≤ 50 %)

Field duplicates were not included in this SDG.

11. Laboratory Duplicate Precision (≤ 50 %) (non-project duplicates not listed)

Pgs. 117-118, 1589594 (project sample DS-17 (18-20)) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	36.8 J	56.1 J	--	none
Methylene Chloride	9.9 J	8.5 J	--	none

Pgs. 124-125, 1590296 (project sample DS-20 (28-30)) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	ND	21.0 J	--	none
cis-1,2-Dichloroethene	2.9 J	3.6 J	--	none
1,4-Dioxane	488	500	2 (2.4)	none
Methylene Chloride	6.8 J	11.8 J	--	none

12. Matrix Spike/Matrix spike Duplicate (MS/MSD) (43-180 %/RPD ≤ 19.3-26.5 %)

Pgs. 104-105, MS-1590011, non-project sample 92272627001. No qualification applied for non-project sample performance.

Pgs. 115-117, MS-1589595, project sample 92272696022 [DS-17 (18-20)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
2-Butanone	138	none	not detected
Acetone	137	none	not detected*
Bromomethane	133	none	not detected

*Acetone value raised to reporting limit and qualified as non-detect due to detection in trip blank; no further qualification required.

Pgs. 122-123, MS-1590048, project sample 92272696040 [DS-26 (8-10)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
Acetone	137	none	not detected

Pgs. 129-130, MS-1591058, project sample 92272895002 [DS-28 (0-2), not this SDG]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,2,3-Trichlorobenzene	33	UJ	MS-L
1,2,4-Trichlorobenzene	32	UJ	MS-L
1,2-Dichlorobenzene	67	UJ	MS-L
1,3-Dichlorobenzene	69	UJ	MS-L
1,4-Dichlorobenzene	68	UJ	MS-L
Hexachloro-1,3-butadiene	30	UJ	MS-L
n-Butylbenzene	58	UJ	MS-L
Naphthalene	56	UJ	MS-L
p-Isopropyltoluene	67	UJ	MS-L
Tetrachloroethene	68	J	MS-L

13. Raw Calculations

Not required for Level II.

14. Professional Judgment

Professional judgment used to qualify acetone as possible artifact from preservation with sodium bisulfate for following samples:

Associated Samples	Compound	Concentration	Flag U (PJ)
DS-22 (13-15)	Acetone	23.7 J	U at RL of 109*
DS-20 (23-25)	Acetone	14.8 J	U at RL of 130*
DS-26 (3-5)	Acetone	12.1 J	U at RL of 90.9*
DS-26 (13-15)	Acetone	8.6 J	U at RL of 83.1*
DS-26 (18-20)	Acetone	18.4 J	U at RL of 94.9*
DS-26 (23-25)	Acetone	49.2 J	U at RL of 122*
DS-26 (28-30)	Acetone	16.7 J	U at RL of 104*

15. Electronic Data Review

Ten percent of the EDD results for VOCs (samples DS7-(13-15), DS-20 (0-2), DS-26 (0-2), DS-27 (0-2), DS-31 (13-15)) were compared to the laboratory data report to confirm accuracy of the EDD. Results listed in summary package were confirmed in the EDD.

DATA VALIDATION RECORD

Method SW8260 for VOCs
Project Name and No: RBTC Boone; 6251121001.03.01
Laboratory and SDG: Pace Analytical, 92272895
Data Validation Level: II
Date: 1/7/2016
Reviewer: L. Clem Senior Reviewer: J. Hartness 02/05/16
Samples Reviewed: DS-28 (0-2), DS-28 (3-5), DS-28 (8-10), DS-28 (13-15), DS-28 (18-20), DS-28 (23-25), DS-28 (28-30), DS-36A (23-25), DS-37 (18-20), DS-37 (23-25), DS-37 (28-30), DS-38 (0-2), DS-38 (3-5), DS-38 (18-20), DS-38 (23-25), DS-38 (28-30), DS-39 (0.2), DS-39 (3-5), DS-39 (18-20), DS-39 (23-25), DS-39 (28-30), DS-40 (0-2), DS-40 (3-5), DS-42 (0-2), DS-42 (3-5), DS-43 (0-2), DS-43 (3-5), DS-45 (0-2), DS-45 (3-5), DS-46 (0-2), DS-46 (3-5), DS-47 (0-2), DS-47 (3-5), DS-48 (0-2), DS-48 (3-5), DS-49 (0-2), DS-49 (3-5), DS-49 (8-10), DS-49 (13-15), DS-50 (0-2), DS-50 (3-5), DS-50 (8-10), DS-50 (13-15), FB-03, Trip Blank 06, Trip Blank 07, and Trip Blank 08.

1. Case Narrative and COC review

Case Narrative (pgs. 8-13 of data package) and COC (pgs. 165-168 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (water samples Preserved with Hydrochloric Acid (HCl); soil samples preserved with sodium bisulfate, deionized water, or methanol; Cool to 4 ºC), Holding time (14 days)

Samples analyzed for VOCs preserved; cooler temp 4.5ºC, per “Sample/Cooler Receipt Checklist” pg. 164 of Summary. Samples collected: 10/20/15, 10/21/15; Samples Prepped and Analyzed: 10/23/15, 10/24/15, 10/25/15, 10/26/15.

3. Instrument Tuning

Not required for Level II.

4. Instrument Calibration

Not required for Level II.

5. Calibration range

Not required for Level II.

6. QC Blanks

Method Blanks:

Pgs. 108-109, 10/26/15, MB-1591171, All non-detect.

Pgs. 113-114, 10/23/15, MB-1590204, All non-detect.

Pgs. 120-121, 10/23/15, MB-1590223, Naphthalene=1.4J ug/L x 5=7 ug/mg.
Associated samples were non-detect – no flags.

Pgs. 124-125, 10/24/15, MB-1591075, Naphthalene=1.8J ug/L x 5=9 ug/mg.
Associated samples were non-detect – no flags.

Pgs. 128-129, 10/25/15, MB-1591157, All non-detect.

Pgs. 135-136, 10/25/15, MB-1591159, Naphthalene=1.4J ug/kg x 5=7 ug/kg.
Associated samples were non-detect – no flags.

Pgs. 142-143, 10/26/15, MB-1591391, Naphthalene=1.6J ug/kg x 5=8 ug/kg.

Associated Samples	**Flag U (BL1)**
DS-39 (23-25)	U at RL of 4.4*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

Pgs. 149-150, 10/26/15, MB-1591589, Acetone=10.2J ug/kg x 10=102 ug/kg.

Associated Samples	**Flag U (BL1)**
DS-39 (0-2)	U at RL of 114*
DS-46 (3-5)	U at RL of 111*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

Field Blank

Pgs. 30-31, FB-03, 10/21/15, All non-detect.

Rinse Blanks

Rinse blanks were not included in this SDG.

Trip Blanks

Pgs. 14-15, Trip Blank 06, 10/20/15, Acetone=10.9J ug/kg x 10=109 ug/kg; Methylene chloride=5.8J ug/kg x 10=58 ug/kg; Toluene=3.4J ug/kg x 5=17 ug/kg.

Associated Samples	**Compound**	**Concentration**	**Flag U (BL2)**
DS-28 (0-2)	Acetone	27.7 J	U at RL of 98.4*
DS-28 (0-2)	Methylene Chloride	13.6 J	U at RL of 19.7*
DS-28 (3-5)	Acetone	13.6 J	U at RL of 95.9*
DS-28 (3-5)	Methylene Chloride	7.4 J	U at RL of 19.2*
DS-28 (18-20)	Acetone	16.6 J	U at RL of 108*
DS-28 (18-20)	Methylene Chloride	7.2 J	U at RL of 21.7*
DS-28 (23-25)	Acetone	33.2 J	U at RL of 158*
DS-28 (23-25)	Methylene Chloride	17.5 J	U at RL of 31.7*
DS-28 (28-30)	Acetone	19.4 J	U at RL of 126*
DS-28 (28-30)	Methylene Chloride	12.3 J	U at RL of 25.2*
DS-36A (23-25)	Acetone	33.6 J	U at RL of 131*
DS-36A (23-25)	Methylene Chloride	12.7 J	U at RL of 26.2*

(cont.)
Pgs. 14-15, Trip Blank 06, 10/20/15, Acetone=10.9J ug/kg x 10=109 ug/kg; Methylene chloride=5.8J ug/kg x 10=58 ug/kg; Toluene=3.4J ug/kg x 5=17 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-37 (18-20)	Acetone	24.4 J	U at RL of 119*
DS-37 (18-20)	Methylene Chloride	17.5 J	U at RL of 23.8*
DS-37 (23-25)	Acetone	22.1 J	U at RL of 129*
DS-37 (23-25)	Methylene Chloride	10.3 J	U at RL of 25.7*
DS-37 (28-30)	Acetone	23.9 J	U at RL of 126*
DS-37 (28-30)	Methylene Chloride	13.5 J	U at RL of 25.2*
DS-40 (0-2)	Methylene Chloride	8.9 J	U at RL of 19.8*
DS-40 (3-5)	Methylene Chloride	13.2 J	U at RL of 21.8*
DS-49 (0-2)	Methylene Chloride	7.6 J	U at RL of 20.5*
DS-49 (3-5)	Acetone	96.1 J	U at RL of 128*
DS-49 (3-5)	Methylene Chloride	14.3 J	U at RL of 25.6*
DS-49 (3-5)	Toluene	8.4	U

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 49-49, Trip Blank 07, 10/21/15, 2-Butanone=14.4J ug/kg x 10=144 ug/kg; Toluene=3.5J ug/kg x 5=17.5 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-39 (23-25)	Toluene	1.9 J	U at RL of 4.4*
DS-46 (0-2)	2-Butanone	11.8 J	U at RL of 88.6*
DS-49 (8-10)	Toluene	2.9 J	U at RL of 5.9*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 82-83, Trip Blank 08, 10/21/15, Methylene chloride=7.7J ug/kg x 10=77 ug/kg; Toluene=3.3J ug/kg x 5=16.5 ug/kg. Toluene was not detected.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-38 (3-5)	Methylene Chloride	6.4 J	U at RL of 22.6*
DS-38 (18-20)	Methylene Chloride	31	U
DS-38 (23-25)	Methylene Chloride	16.6 J	U at RL of 21.4*
DS-39 (0-2)	Methylene Chloride	5 J	U at RL of 22.8*
DS-39 (3-5)	Methylene Chloride	7.5 J	U at RL of 22*
DS-42 (0-2)	Methylene Chloride	8.2 J	U at RL of 34.7*
DS-43 (3-5)	Methylene Chloride	10.7 J	U at RL of 21.4*
DS-45 (0-2)	Methylene Chloride	13.8 J	U at RL of 24.3*
DS-45 (3-5)	Methylene Chloride	6.5 J	U at RL of 21.3*
DS-50 (0-2)	Methylene Chloride	4 J	U at RL of 22*
DS-50 (3-5)	Methylene Chloride	18.3 J	U at RL of 32*
DS-50 (8-10)	Methylene Chloride	12 J	U at RL of 37*
DS-50 (13-15)	Methylene Chloride	7.4 J	U at RL of 30.4*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

7. Laboratory Control Sample (LCS) Results (Lab limits)

Pgs. 109-110, LCS-1591172, LCS within limits.

Pgs. 114-116, LCS-1590205, LCS within limits.

Pgs. 121-123, LCS-1590224, the following were outside QC limits:

Compound	LCS%Rec	Flag	Reason Code
1,1,2-Trichloroethane	76	J/UJ	LCS-L

Pgs. 125-127, LCS-1591076, LCS within limits.

Pgs. 129-131, LCS-1591158, LCS within limits.

Pgs. 136-138, LCS-1591160, the following were outside QC limits:

Compound	LCS%Rec	Flag	Reason Code
2,2-Dichloropropane	142	none	not detected
2-Butanone	148	none	not detected
Bromochloromethane	139	none	not detected

Pgs. 143-145, LCS-1591392, LCS within limits.

Pgs. 150-152, LCS-1591590, the following were outside QC limits:

Compound	LCS%Rec	Flag	Reason Code
1,1,2,2-Tetrachloroethane	64	J/UJ	LCS-L
Vinyl Acetate	24	J/UJ	LCS-L

8. Internal Standards (50 - 200 %)

Not required for Level II.

9. Surrogate Recovery (70-132%)

Pgs. 80-81, Sample DS-38 (18-20) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 88-89, Sample DS-45 (0-2) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 94-95, Sample DS-39 (3-5) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 98-99, Sample DS-39 (0-2) surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

Pgs. 149-150, Sample MB-1591589 surrogate (1,2-Dichloroethane-d4) outside lab limits (high). However, 1,2-dichloroethane was not detected. Therefore, no qualification required.

10. Field Duplicate Precision (≤ 50 %)

Field duplicates were not included in this SDG.

11. Laboratory Duplicate Precision (≤ 30 %) (non-project duplicates not listed)

Pgs. 133-134, 1591243 (project sample DS-49 (8-10)) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	18.7 J	23.3 J	--	none
Methylene Chloride	8.6 J	3.8 J	--	none

Pgs. 140-141, 1591246 (project sample DS-38 (18-20)) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	56.8 J	63.2 J	--	none
cis-1,2-Dichloroethene	15	9.3	47	J
Methylene Chloride	31	13.8 J	--	none
Tetrachloroethene	31.6	15.5	68	J
Trichloroethene	7.6	3.9 J	--	none

Pgs. 154-155, 1592107 (project sample DS-39 (0-2)) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
2-Butanone	27.9 J	25.3 J	--	none
Acetone	43.2 J	45.3 J	--	none
Methylene Chloride	5.0 J	ND	--	none
Tetrachloroethene	8.0	15.1	62	J
Trichloroethene	ND	3.2 J	--	none

12. Matrix Spike/Matrix spike Duplicate (MS/MSD) (43-180 %/RPD ≤ 30 %)

Pgs. 111-112, MS-1591173, non-project sample 92272889012. No qualification applied for non-project sample performance.

Pgs. 116-117, MS-1591058, project sample 92272895002 [DS-28 (0-2)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,2,3-Trichlorobenzene	33	UJ	MS-L
1,2,4-Trichlorobenzene	32	UJ	MS-L
1,2-Dichlorobenzene	67	UJ	MS-L
1,3-Dichlorobenzene	69	UJ	MS-L
1,4-Dichlorobenzene	68	UJ	MS-L
Hexachloro-1,3-butadiene	30	UJ	MS-L
n-Butylbenzene	58	UJ	MS-L
Naphthalene	56	UJ	MS-L
p-Isopropyltoluene	67	UJ	MS-L
Tetrachloroethene	68	J	MS-L

Pgs. 131-133, MS-1591244, project sample 92272895021 [DS-48 (3-5)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
Acetone	168	none*	not detected
Methylene Chloride	184	none*	not detected

*This result was qualified as a non-detect due to professional judgment. No further qualification was required.

Pgs. 138-139, MS-1591271, project sample 92272895036 [DS-38 (23-25)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
2-Butanone	151	none	not detected
Acetone	147	none*	not detected
Hexachloro-1,3-butadiene	65	UJ	MS-L

*This result was qualified as a non-detect due to professional judgment No further qualification was required.

Pgs. 145-146, MS-1592094, non-project sample 92273176001. No qualification applied for non-project sample performance.

Pgs. 152-153, MS-1592108, non-project sample 92273201001. No qualification applied for non-project sample performance.

13. Raw Calculations

Not required for Level II.

14. Professional Judgment

Sample	Compound	Concentration	Flag U (BL2)
DS-49 (8-10)	Acetone	60.8 J	U at RL of 118*
DS-49 (8-10)	Methylene chloride	11.1 J	U at RL of 23.6*
DS-49 (13-15)	Acetone	18.7 J	U at RL of 116*
DS-49 (13-15)	Methylene chloride	8.6 J	U at RL of 23.2*
DS-48 (3-5)	Acetone	10.6 J, M1	U at RL of 85.4*
DS-48 (3-5)	Methylene chloride	10.9 J, M1	U at RL of 17.1*
DS-39 (28-30)	Methylene chloride	8.2 J	U at RL of 21.4*
DS-47 (0-2)	Acetone	41.1 J	U at RL of 139*
DS-47 (0-2)	Methylene chloride	13.2 J	U at RL of 27.9*
DS-39 (23-25)	Acetone	54.7 J	U at RL of 89*
DS-48 (0-2)	Methylene chloride	6.8 J	U at RL of 19.6*
DS-46 (0-2)	Acetone	37.9 J	U at RL of 88.6*
DS-47 (3-5)	Acetone	26.2 J	U at RL of 180*
DS-47 (3-5)	Methylene chloride	21.3 J	U at RL of 36*
DS-39 (18-20)	Methylene chloride	7.8 J	U at RL of 21.2*
DS-43 (0-2)	Methylene chloride	6.0 J	U at RL of 18.7*
DS-38 (0-2)	Methylene chloride	12.1 J	U at RL of 22.1*
DS-38 (28-30)	Acetone	13.5 J	U at RL of 116*
DS-38 (28-30)	Methylene chloride	10.1 J	U at RL of 23.1*
DS-43 (3-5)	Acetone	48.6 J	U at RL of 107*
DS-42 (3-5)	Acetone	20.8 J	U at RL of 131*
DS-42 (3-5)	Methylene chloride	18 J	U at RL of 26.2*
DS-38 (18-20)	Acetone	56.8 J	U at RL of 143*
DS-38 (23-25)	Acetone	14.8 J, M1	U at RL of 107*
DS-42 (0-2)	Acetone	18.2 J	U at RL of 173*
DS-45 (3-5)	Methylene chloride	6.5 J	U at RL of 21.3*

15. Electronic Data Review

Ten percent of the EDD results for VOCs (samples DS-28 (8-10), DS-38 (18-20), DS-39 (23-25), DS-47 (0-2), DS-49 (3-5)) were compared to the laboratory data report to confirm accuracy of the EDD. Results listed in summary package were confirmed in the EDD.

DATA VALIDATION REPORT
DECEMBER 2015 SOIL SAMPLING
RBTC BOONE

1.0 INTRODUCTION

Soil samples were collected during sampling completed during December 2015 at the Robert Bosch Tool Corporation Boone Facility located in Boone, North Carolina. The soil samples were analyzed by Pace Analytical in Asheville, North Carolina, Charlotte, North Carolina, and Indianapolis, Indiana. A summary of the sample delivery groups (SDG) and field samples included in this review is presented in Table 1. Samples reviewed in this report were analyzed for one or more of the following United States Environmental Protection Agency (USEPA) SW-846 methods (USEPA, 1996):

- Volatile organic compounds (VOCs) in soil by USEPA Method 5035/8260B
- 1,4-dioxane by USEPA Method 8260B Modified (analyzed by Selective Ion Monitoring or SIM)
- Cyanide by Method SM 4500-CN-E
- Free Cyanide by Method EPA 9014

Sample results were submitted from Pace Analytical in two sample delivery groups (SDGs): 92279773, and 92280019.

Sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 2008; USEPA, 2010). Project data quality criteria for the VOC and cyanide analyses are identified based on laboratory quality control (QC) goals and the professional judgment of the project chemist. The laboratory QC limits were used during data validation. A Level II validation was performed on the laboratory analysis data. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory narrative
- sample chain of custody/sample condition upon receipt form
- sample preservation
- QC blanks (method, rinse, field, and trip)
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- field replicate sample results
- sample results summary
- verification of electronic data deliverable (EDD) results

Validation reason codes are applied to the results to document the reason for necessary data qualification. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below are generally used to qualify data that did not meet project specific QC goals.

J	Estimated value
R	Unusable
U	Undetected

UJ Undetected and reporting limit is estimated

2.0 VALIDATION OBSERVATION AND ACTIONS

With the exception of the data qualification actions discussed in the sections below, results are interpreted to be usable as reported by the laboratory. Qualification was required for the following:

- Detection of methylene chloride in a method blank resulted in qualification of methylene chloride results in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), DS-28A (3-5), and TB-02 reported in SDG 92279773.

- Detection of toluene and o-xylene in a Field Blank (FB-01) resulted in qualification of the toluene result in sample DS-28A (30-32) and the o-xylene result in sample DS-28A (18-20) reported in SDG 92279773.

- Detection of methylene chloride in trip blanks (TB-01, TB-02, TB-03, and TB-04) resulted in qualification of methylene chloride results in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-19A (13-15), DS-19A (18-20), DS-19A (23-25), DS-19A (28-30), DS-20-A (0-2), DS-20-A (3-5), DS-20-A (8-10), DS-20-A (13-15), DS-20-A (18-20), DS-20A (23-25), DS-20A (28-30), DS-25A (0-2), DS-25A (3-5), DS-25A (18-20), DS-25A (23-25), DS-25A (28-30), DS-28A (0-2), DS-28A (3-5), DS-28A (18-20), DS-28A (23-25), DS-28A (28-30), and DS-28A (30-32) reported in SDG 92279773.

- Detection of acetone in trip blanks (TB-03 and TB-04) resulted in qualification of acetone results in samples DS-25A (3-5), DS-25A (18-20), DS-25A (23-25), DS-25A (28-30), DS-52 (3-5), and DS-53 (0-2) reported in SDG 92279773.

- Low recovery of vinyl acetate in the LCS resulted in the qualification of the vinyl acetate results in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), DS-28A (3-5), and TB-02 reported in SDG 92279773.

- Low recovery of 1,1,2,2-tetrachloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethane, and vinyl acetate in an MS resulted in the qualification of the 1,1,2,2-tetrachloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethane, and vinyl acetate results in sample DS-25A (3-5) reported in SDG 92279773.

- High recovery of 1,1-dichloroethane in an MS resulted in the qualification of the 1,1-dichloroethane result in sample DS-25A (3-5) reported in SDG 92279773.

- Low recovery of hexachloro-1,3-butadiene and styrene in an MS resulted in the qualification of the hexachloro-1,3-butadiene and styrene results in sample DS-53 (13-15) reported in 92279773.

- The following acetone concentrations were qualified as not detected due to professional judgment: DS-19A (0-2), DS-19A (13-15), DS-20-A (13-15), DS-20-A (18-20), DS-20A (28-30), DS-28A (0-2), DS-28A (18-20), DS-28A (23-25), DS-28A (23-25)DUP, DS-28-A (30-32), DS-51 (0-2), and DS-52 (3-5)DUP (SDG 92279773) were raised to their reporting limits and qualified as "U".

- Detection m&p-xylene in a Field Blank (FB-02) resulted in qualification of the m&p-xylene result in sample DS-39A (13-15) reported in SDG 92280019.

- Detection of acetone and methylene chloride in a trip blank (TB-06) and detection of methylene chloride in a trip blank (TB-07) resulted in qualification of acetone results in samples DS-36B (13-15) and DS-39A (23-25); and methylene chloride results in samples DS-36B (13-15), DS-36B (18-20), DS-36B (23-25), DS-39A (0-2), DS-39A (3-5), DS-39A (8-10), DS-39A (13-15), DS-39A (18-

20), DS-39A (23-25), DS-39A (28-30), DS-41A (0-2), DS-41A (3-5), DS-44A (3-5), and DS-44A (8-10) reported in SDG 92280019.

- Low recovery of vinyl acetate in the LCS resulted in the qualification of the vinyl acetate results in samples DS-39A (13-15), DS-39A (23-25), DS-39A (28-30), DS-41A (3-5), and DS-44A (0-2) reported in SDG 92280019.
- Low recovery of methylene chloride in an MS would have resulted in the qualification of the methylene chloride result in sample DS-41A (3-5) reported in SDG 92280019. However, this concentration was already qualified as non-detect and raised to the reporting limit due to detection in a blank. No further qualification was required.
- Low recovery of total cyanide in an MS sample resulted in the qualification of the total cyanide result in sample SB-20A (5.0) reported in SDG 92280019.

Validation reason codes are applied to the results to document the reason for the validation qualification. Table 2 presents a summary of the data qualified, the validation flag, and the reason codes.

2.1 VOCs

Based on the project scope, results were reported for VOCs by Method 5035/8260. During the Level II review, the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks*
- LCS results*
- MS/MSD sample results*
- surrogate recovery
- field replicate result
- laboratory replicate result
- sample result reporting
- verification of EDD results

Validation actions required are presented in each section.

<u>Holding Times</u>

All VOC samples were analyzed within the required holding time.

<u>Sample Preservation</u>

The samples were received at the laboratory preserved with hydrochloric acid (HCl) to a pH of 2 s.u. and cooled to 6°C +/-2°C.

<u>QC Blanks</u>

QC blanks for VOCs include method blanks, field blanks, rinse blanks, and trip blanks. Any result less than 5 times (10 times for common laboratory contaminants like methylene chloride and acetone) the

concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times (10 times for common laboratory contaminants) the concentration detected in the field blank, rinse blank, and/or trip blank was considered a possible field artifact. Rinse blanks were not collected for this data set.

Methylene chloride was detected in a method blank and in site samples requiring validation qualification. The methylene chloride concentrations in DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), DS-28A (3-5), and TB-02 (SDG 92279773) were raised to the reporting limit and qualified as "U".

Toluene and o-xylene were detected in a field blank (FB-01) and in site samples requiring validation qualification. The toluene concentration in DS-28A (30-32) was qualified as "U" and the o-xylene concentration in DS-28A (18-20) (SDG 92279773) was raised to its reporting limit and qualified as "U".

m&p-Xylene was detected in a field blank (FB-02) and in a site sample requiring validation qualification. The m&p-xylene concentration in DS-39A (13-15) (SDG 92280019) was raised to its reporting limit and qualified as "U".

Methylene chloride was detected in trip blank, TB-01, of SDG 92279773. The methylene chloride concentrations in DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), and DS-28A (3-5) (SDG 92279773) were raised to their reporting limits and qualified as "U".

Methylene chloride was detected in trip blank, TB-02, of SDG 92279773. The methylene chloride concentrations in DS-19A (13-15), DS-19A (18-20), DS-19A (23-25), DS-19A (28-30), DS-28A (18-20), DS-28A (23-25), and DS-28A (28-30) (SDG 92279773) were raised to their reporting limits and qualified as "U".

Methylene chloride was detected in trip blank, TB-03, of SDG 92279773. The methylene chloride concentrations in DS-20-A (0-2), DS-20-A (3-5), DS-20-A (8-10), DS-20-A (13-15), DS-20-A (18-20), DS-20A (28-30), and DS-28A (30-32) (SDG 92279773) were raised to their reporting limits (if detections were less than the reporting limit) and qualified as "U".

Acetone and methylene chloride were detected in trip blank, TB-04, of SDG 92279773. The acetone concentrations in DS-25A (18-20), DS-25A (23-25), and DS-25A (28-30) (SDG 92279773); and the methylene chloride concentrations in DS-20-A (23-25), DS-25A (0-2), DS-25A (18-20), DS-25A (23-25), and DS-25A (28-30) (SDG 92279773) were raised to their reporting limits (if detections were less than the reporting limit) and qualified as "U".

Acetone and methylene chloride were detected in trip blank, TB-05, of SDG 92279773. The acetone concentrations in DS-25A (3-5), DS-52 (3-5), and DS-53 (0-2) (SDG 92279773); and the methylene chloride concentration in DS-25A (3-5) (SDG 92279773) were raised to their reporting limits (if detections were less than the reporting limit) and qualified as "U".

Acetone and methylene chloride were detected in trip blank, TB-06, of SDG 92280019. The acetone concentrations in DS-36B (13-15) and DS-39A (23-25) (SDG 92280019); and the methylene chloride concentrations in DS-36B (13-15), DS-36B (18-20), DS-36B (23-25), DS-39A (0-2), DS-39A (3-5), DS-39A (8-10), DS-39A (13-15), DS-39A (18-20), and DS-39A (23-25) (SDG 92280019) were raised to their reporting limits (if detections were less than the reporting limit) and qualified as "U".

Methylene chloride was detected in trip blank, TB-07, of SDG 92280019. The methylene chloride concentrations in DS-39A (28-30), DS-41A (0-2), DS-41A (3-5), DS-44A (3-5), and DS-44A (8-10) (SDG

92280019) were raised to their reporting limits (if detections were less than the reporting limit) and qualified as "U".

LCS Results

Eleven LCS samples were analyzed in the analytical sequences. In nine of these LCS analyses, target compound recoveries were within limits indicating good confirmation of data accuracy. Therefore, data qualification was not required. Vinyl acetate had a low LCS recovery in two LCS samples, the associated vinyl acetate concentrations in samples DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-28A (0-2), DS-28A (3-5), DS-39A (13-15), DS-39A (18-20), DS-39A (23-25), DS-39A (28-30), DS-41A (3-5), DS-44A (0-2), and TB-02 were qualified as estimated (flagged "J"; "UJ" for non-detects).

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. The following project MS or MS/MSD samples were analyzed:

An MS was performed on sample DS-20-A (13-15): recovery was within QC limits. Therefore, data qualification was not required.

An MS was performed on sample DS-25A (3-5): recovery was outside (above) QC limits for 1,1-dichloroethane and outside (below) QC limits for 1,1,2,2-tetrachloroethane, 2-butanone, acetone, methylene chloride, tetrachloroethene, and vinyl acetate. The results for these compounds, with two exceptions, were qualified as estimated and flagged "J" ("UJ" for non-detects with low recovery). The exception is that the result for 2-butanone was already qualified as estimated due to detection at a concentration less than the reporting limit, so further data qualification was not required. The other exception was acetone already qualified as "U" raised to the RL due to blank contamination in TB-05.

An MS was performed on sample DS-53 (13-15): recovery was outside (below) QC limits for hexachloro1,3-butadiene and styrene. The non-detect results for these compounds were qualified as estimated and flagged "UJ".

An MS was performed on sample DS-41A (3-5): recovery was outside (above) QC limits for bromomethane and outside (below) QC limits for methylene chloride. Bromomethane was not detected in the site sample. Therefore, data qualification was not required for this compound. The methylene chloride MS recovery would require the results for this compound in the site sample to be qualified as estimated and flagged "J". However, the methylene chloride result was already qualified as non-detect and flagged "U" due to detection in a blank. Therefore, no further data qualification was required.

Surrogate Recovery

All surrogates were within lab limits with the exception of one surrogate (1,2-dichloroethane-d4) in three samples (DS-20-A (8-10) and DS-52 (3-5) in SDG 92279773; and DS-36B (23-25) in SDG 92280019). Several of the VOCs (1,1-dichloroethane, cis-1,2-dichloroethene and trichloroethene) associated with this surrogate were detected in DS-20-A (8-10), requiring qualification (flagged "JH"). Several of the VOCs (cis-1,2-dichloroethene and methylene chloride) associated with this surrogate were detected in DS-52 (3-5), requiring qualification (flagged "JH"). Although methylene chloride was detected in DS-36B (23-25) and is related to the surrogate 1,2-dichloroethane-d4, no qualification was necessary because the detections were already flagged "U" at their respective RLs.

Field Duplicates Results

Field duplicates were not collected for this data set.

Laboratory Duplicates Results

Laboratory duplicates were analyzed on four site samples: DS-25A (28-30), DS-28A (28-30), DS-39A (23-25), and DS-52A (3-5). Field duplicate precision, expressed as relative percent difference (RPD), is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

VOCs were detected in the parent/duplicate samples DS-25A (28-30)/Duplicate, DS-28A (28-30)/Duplicate, DS-39A (23-25)/Duplicate, and DS-52A (3-5)/Duplicate; RPDs were not able to be calculated because one or both results for the duplicate pairs were less than the reporting limit. Therefore, duplicate precision could not be assessed due to the lack of detections above the reporting limit.

Professional Judgement Qualification

Professional judgment was used to qualify low-level results for acetone in some of the samples. Edits to the DQE qualifiers by professional judgment were required for the detected concentrations of acetone and/or methylene chloride that were not qualified based on method and/or equipment blank results. Professional judgment was used to qualify the detected acetone results "U" as possibly biased high or false positive due to the following reasons:

- The soil samples were preserved with sodium bisulfate for low-level VOC analysis. According to Appendix A of USEPA Method 5035A, *Closed System Purge-and-Trap and Extraction For Volatile Organics in Soil and Waste Samples* (USEPA, 2002), acetone can be produced upon the acidification with sodium bisulfate preservative (Hewitt, 1999 and Uhlfelder, 2000).
- Acetone is not a site Compound of Concern (COC).
- Most of the associated acetone and methylene chloride detected in samples from the same location was qualified as a field and/or laboratory artifact (U-flagged) due to method, field, and/or trip blank results.
- The acetone and methylene chloride results are below screening levels.
- Both acetone and methylene chloride are common laboratory contaminants.

The above listed reasons support the professional judgment qualification ("U" flag) of the low-level detected acetone results in the soil samples.

The following acetone concentrations were qualified as not detected due to professional judgment: DS-19A (0-2), DS-19A (13-15), DS-20-A (13-15), DS-20-A (18-20), DS-20A (28-30), DS-28A (0-2), DS-28A (18-20), DS-28A (23-25), DS-28A (28-30)DUP, DS-28-A (30-32), DS-51 (0-2), and DS-52 (3-5)DUP (SDG 92279773); and DS-39A (23-25) DUP (SDG 92280019) were raised to their reporting limits and qualified as "U".

2.2 1,4-Dioxane

Based on the project scope, results were reported for 1,4-dioxane by Method 8260B Modified. During the Level II review the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results
- field duplicates result
- sample result reporting
- verification of electronic database results

Validation actions required are presented in each section per SDG.

Holding Times

The 1,4-dioxane samples were analyzed within the required holding time.

Sample Preservation

The samples were received at the laboratory preserved with HCl to a pH of 2 s.u. and cooled to 6°C +/- 2°C.

QC Blanks

QC blanks for 1,4-dioxane include method blanks, rinse blanks, field blanks, and trip blanks. Any result less than 5 times the concentration detected in the method blank was considered a possible laboratory artifact. Any result less than 5 times the concentration detected in the field blank and/or rinse blank was considered a possible field artifact. Associated sample results were qualified non-detect (U) in the final data. Rinse blanks and field blanks were not included for this data set. Method blanks and trip blanks were non-detect. Therefore, validation qualification was not required.

LCS Results

Two LCS samples were analyzed in analytical sequences. In these LCS analyses, 1,4-dioxane recoveries were within limits indicating good confirmation of data accuracy.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. Some of the MS/MSD samples were performed on non-project samples. No discussion of MS/MSDs is necessary for non-project samples since no qualification would be applied to project samples based on recoveries that are outside of recovery limits. The following project MS or MS/MSD samples were analyzed:

MS/MSDs were performed on project samples DS-20A (18-20) and DS-28A (0-2), recoveries were within QC limits.

Field Duplicate Results

Field duplicates were not collected for this data set.

Laboratory Duplicate Results

Laboratory duplicates were collected on two site samples: DS-20-A (8-10)/Duplicate; and DS-28A (3-5)/Duplicate. Field duplicate precision, expressed as RPD, is evaluated for results detected above the reporting limit in both the parent and duplicate samples.

1,4-Dioxane was not detected in the two parent/duplicate samples (DS-20-A (8-10)/Duplicate; and DS-28A (3-5)/Duplicate); therefore, duplicate precision could not be assessed due to the lack of detections above the reporting limit.

2.3 Total Cyanide

Based on the project scope, results were reported for total cyanide by SM 4500-CN-E. During the Level II review the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results*
- field replicate result
- sample result reporting
- verification of electronic database results

Validation actions required are presented in each section.

Holding Times

The total cyanide samples were analyzed within the required holding time.

Sample Preservation

The samples were received at the laboratory cooled to 6°C +/- 2°C.

QC Blanks

QC blanks for total cyanide include method blanks and rinse blanks. Any result less than 5 times the concentration detected in the method blank was considered a possible laboratory artifact. Rinse blanks were not included for this data set. The method blank was non-detect for total cyanide. Therefore, validation qualification was not required.

LCS Results

One LCS sample was analyzed in analytical sequences. In this LCS analysis, target compound recoveries were within limits indicating good confirmation of data accuracy. Therefore, data qualification was not required.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. The following project MS or MS/MSD samples were analyzed:

An MS was performed on sample SB-48A (0.5): recovery was within QC limits. Therefore, data qualification was not required.

MS/MSD were performed on sample SB-20A (5.0): the MS/MSD RPD performance were outside QC limits for total cyanide. The result for this compound was qualified as estimated and flagged "J".

Field Duplicates Results

Field duplicates were not collected for this data set.

2.4 Free Cyanide

Based on the project scope, results were reported for free cyanide by EPA 9014. During the Level II review the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory narrative
- sample chain of custody/sample receipt records
- sample preservation
- holding times
- QC Blanks
- LCS results
- MS/MSD sample results
- field replicate result
- sample result reporting
- verification of electronic database results

Validation actions required are presented in each section.

Holding Times

The free cyanide samples were analyzed within the required holding time.

Sample Preservation

The samples were received at the laboratory cooled to 6°C +/- 2°C.

QC Blanks

QC blanks for free cyanide include method blanks. Any result less than 5 times the concentration detected in the method blank was considered a possible laboratory artifact. The method blanks were non-detect for free cyanide. Therefore, validation qualification was not required.

LCS Results

One LCS sample was analyzed in analytical sequences. In this LCS analysis, the target compound recovery was within limits indicating good confirmation of data accuracy. Therefore, data qualification was not required.

MS/MSD Sample Results

MS/MSD performance indicates matrix effects of the sample on the target compounds and/or analytes analyzed. MS/MSDs were performed on project samples SB-17A (15.0) and SB-48A (0.5), recoveries and/or RPD performance were within QC limits.

Field Duplicates Results

Field duplicates were not collected for this data set.

3.0 SUMMARY

The data are usable with the qualification identified for the results associated with:

- acetone, 2-butanone, 1,1-dichloroethane, hexachloro-1,3-butadiene, methylene chloride, styrene, 1,1,2,2-tetrachloroethane, tetrachloroethene, vinyl acetate, and total cyanide ("J"/"UJ" flagged).
- acetone, methylene chloride, toluene, m&p-xylene, and o-xylene ("U" flagged, including those flagged based on professional judgement).

References:

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U.S. Environmental Protection Agency (USEPA), 1996. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

USEPA, 2002. Method 5035A – Closed System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples, Revision 1, USEPA, July 2002.

U.S. Environmental Protection Agency (USEPA), 2008. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540/R-08-01; June 2008.

U.S. Environmental Protection Agency (USEPA), 2010. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Data Review"; Office of Superfund Remediation and Technology Innovation; EPA-540-R-10-011; January 2010.

Prepared by/Date: Lynne Clem 1/27/16
Checked by/Date: Terrell Parker 2/5/16

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
DECEMBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
SOIL SAMPLES					
DS-19A (0-2)	DS-19A (0-2)	12/14/2015	VOCs	8260	92279773
DS-19A (0-2)	DS-19A (0-2)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-19A (3-5)	DS-19A (3-5)	12/14/2015	VOCs	8260	92279773
DS-19A (3-5)	DS-19A (3-5)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-19A (8-10)	DS-19A (8-10)	12/14/2015	VOCs	8260	92279773
DS-19A (8-10)	DS-19A (8-10)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-19A (13-15)	DS-19A (13-15)	12/14/2015	VOCs	8260	92279773
DS-19A (13-15)	DS-19A (13-15)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-19A (18-20)	DS-19A (18-20)	12/14/2015	VOCs	8260	92279773
DS-19A (18-20)	DS-19A (18-20)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-19A (23-25)	DS-19A (23-25)	12/14/2015	VOCs	8260	92279773
DS-19A (23-25)	DS-19A (23-25)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-19A (28-30)	DS-19A (28-30)	12/14/2015	VOCs	8260	92279773
DS-19A (28-30)	DS-19A (28-30)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20-A (0-2)	DS-20-A (0-2)	12/14/2015	VOCs	8260	92279773
DS-20-A (0-2)	DS-20-A (0-2)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20-A (3-5)	DS-20-A (3-5)	12/14/2015	VOCs	8260	92279773
DS-20-A (3-5)	DS-20-A (3-5)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20-A (8-10)	DS-20-A (8-10)	12/14/2015	VOCs	8260	92279773
DS-20-A (8-10)	DS-20-A (8-10)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20-A (13-15)	DS-20-A (13-15) [a]	12/14/2015	VOCs	8260	92279773
DS-20-A (13-15)	DS-20-A (13-15)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20-A (18-20)	DS-20-A (18-20)	12/14/2015	VOCs	8260	92279773
DS-20-A (18-20)	DS-20-A (18-20) [b]	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20A (23-25)	DS-20A (23-25)	12/14/2015	VOCs	8260	92279773
DS-20A (23-25)	DS-20A (23-25)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-20A (28-30)	DS-20A (28-30)	12/14/2015	VOCs	8260	92279773
DS-20A (28-30)	DS-20A (28-30)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (0-2)	DS-25A (0-2)	12/14/2015	VOCs	8260	92279773
DS-25A (0-2)	DS-25A (0-2)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (3-5)	DS-25A (3-5) [a]	12/14/2015	VOCs	8260	92279773
DS-25A (3-5)	DS-25A (3-5)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (8-10)	DS-25A (8-10)	12/14/2015	VOCs	8260	92279773
DS-25A (8-10)	DS-25A (8-10)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (13-15)	DS-25A (13-15)	12/14/2015	VOCs	8260	92279773
DS-25A (13-15)	DS-25A (13-15)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (18-20)	DS-25A (18-20)	12/14/2015	VOCs	8260	92279773
DS-25A (18-20)	DS-25A (18-20)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (23-25)	DS-25A (23-25)	12/14/2015	VOCs	8260	92279773
DS-25A (23-25)	DS-25A (23-25)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-25A (28-30)	DS-25A (28-30)	12/14/2015	VOCs	8260	92279773
DS-25A (28-30)	DS-25A (28-30)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (0-2)	DS-28A (0-2)	12/14/2015	VOCs	8260	92279773
DS-28A (0-2)	DS-28A (0-2) [b]	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (3-5)	DS-28A (3-5)	12/14/2015	VOCs	8260	92279773
DS-28A (3-5)	DS-28A (3-5)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (8-10)	DS-28A (8-10)	12/14/2015	VOCs	8260	92279773
DS-28A (8-10)	DS-28A (8-10)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (13-15)	DS-28A (13-15)	12/14/2015	VOCs	8260	92279773
DS-28A (13-15)	DS-28A (13-15)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (18-20)	DS-28A (18-20)	12/14/2015	VOCs	8260	92279773
DS-28A (18-20)	DS-28A (18-20)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (23-25)	DS-28A (23-25)	12/14/2015	VOCs	8260	92279773

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
DECEMBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
DS-28A (23-25)	DS-28A (23-25)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28A (28-30)	DS-28A (28-30)	12/14/2015	VOCs	8260	92279773
DS-28A (28-30)	DS-28A (28-30)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-28-A (30-32)	DS-28-A (30-32)	12/14/2015	VOCs	8260	92279773
DS-28-A (30-32)	DS-28-A (30-32)	12/14/2015	1,4-Dioxane	8260B Mod	92279773
DS-36B (13-15)	DS-36B (13-15)	12/15/2015	VOCs	8260	92280019
DS-36B (18-20)	DS-36B (18-20)	12/15/2015	VOCs	8260	92280019
DS-36B (23-25)	DS-36B (23-25)	12/15/2015	VOCs	8260	92280019
DS-39A (0-2)	DS-39A (0-2)	12/15/2015	VOCs	8260	92280019
DS-39A (3-5)	DS-39A (3-5)	12/15/2015	VOCs	8260	92280019
DS-39A (8-10)	DS-39A (8-10)	12/15/2015	VOCs	8260	92280019
DS-39A (13-15)	DS-39A (13-15)	12/15/2015	VOCs	8260	92280019
DS-39A (18-20)	DS-39A (18-20)	12/15/2015	VOCs	8260	92280019
DS-39A (23-25)	DS-39A (23-25)	12/15/2015	VOCs	8260	92280019
DS-39A (28-30)	DS-39A (28-30)	12/15/2015	VOCs	8260	92280019
DS-41A (0-2)	DS-41A (0-2)	12/15/2015	VOCs	8260	92280019
DS-41A (3-5)	DS-41A (3-5) [(a)]	12/15/2015	VOCs	8260	92280019
DS-44A (0-2)	DS-44A (0-2)	12/15/2015	VOCs	8260	92280019
DS-44A (3-5)	DS-44A (3-5)	12/15/2015	VOCs	8260	92280019
DS-44A (8-10)	DS-44A (8-10)	12/15/2015	VOCs	8260	92280019
DS-51 (0-2)	DS-51 (0-2)	12/14/2015	VOCs	8260	92279773
DS-51 (3-5)	DS-51 (3-5)	12/14/2015	VOCs	8260	92279773
DS-51 (8-10)	DS-51 (8-10)	12/14/2015	VOCs	8260	92279773
DS-51 (13-15)	DS-51 (13-15)	12/14/2015	VOCs	8260	92279773
DS-52 (0-2)	DS-52 (0-2)	12/14/2015	VOCs	8260	92279773
DS-52 (3-5)	DS-52 (3-5)	12/14/2015	VOCs	8260	92279773
DS-52 (8-10)	DS-52 (8-10)	12/14/2015	VOCs	8260	92279773
DS-52 (13-15)	DS-52 (13-15)	12/14/2015	VOCs	8260	92279773
DS-53 (0-2)	DS-53 (0-2)	12/14/2015	VOCs	8260	92279773
DS-53 (3-5)	DS-53 (3-5)	12/14/2015	VOCs	8260	92279773
DS-53 (8-10)	DS-53 (8-10)	12/14/2015	VOCs	8260	92279773
DS-53 (13-15)	DS-53 (13-15) [(a)]	12/14/2015	VOCs	8260	92279773
SB-17A (5.0)	SB-17A (5.0)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-17A (5.0)	SB-17A (5.0)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-17A (10.0)	SB-17A (10.0)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-17A (10.0)	SB-17A (10.0)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-17A (15.0)	SB-17A (15.0)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-17A (15.0)	SB-17A (15.0) [(d)]	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-20A (0.5)	SB-20A (0.5)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-20A (0.5)	SB-20A (0.5)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-20A (5.0)	SB-20A (5.0) [(c)]	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-20A (5.0)	SB-20A (5.0)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-20A (10.0)	SB-20A (10.0)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-20A (10.0)	SB-20A (10.0)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-20B (5.0)	SB-20B (5.0)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-20B (5.0)	SB-20B (5.0)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-20C (5.0)	SB-20C (5.0)	12/15/2015	Cyanide	SM 4500-CN-E	92280019
SB-20C (5.0)	SB-20C (5.0)	12/15/2015	Free Cyanide	EPA 9014	92280019
SB-46A (15)	SB-46A (15)	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-46A (15)	SB-46A (15)	12/14/2015	Free Cyanide	EPA 9014	92280019
SB-46A (20)	SB-46A (20)	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-46A (20)	SB-46A (20)	12/14/2015	Free Cyanide	EPA 9014	92280019
SB-48A (0.5)	SB-48A (0.5) [(c)]	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-48A (0.5)	SB-48A (0.5) [(d)]	12/14/2015	Free Cyanide	EPA 9014	92280019

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL PARAMETERS
DATA VALIDATION REPORT
DECEMBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

Boring	Sample ID	Date	Parameters	Methods	SDG
SB-48A (5.0)	SB-48A (5.0)	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-48A (5.0)	SB-48A (5.0)	12/14/2015	Free Cyanide	EPA 9014	92280019
SB-48B (0.5)	SB-48B (0.5)	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-48B (0.5)	SB-48B (0.5)	12/14/2015	Free Cyanide	EPA 9014	92280019
SB-48C (0.5)	SB-48C (0.5)	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-48C (0.5)	SB-48C (0.5)	12/14/2015	Free Cyanide	EPA 9014	92280019
SB-48D (0.5)	SB-48D (0.5)	12/14/2015	Cyanide	SM 4500-CN-E	92280019
SB-48D (0.5)	SB-48D (0.5)	12/14/2015	Free Cyanide	EPA 9014	92280019
QUALITY CONTROL SAMPLES					
--	FB-01	12/14/2015	VOCs	8260	92279773
--	FB-02	12/15/2015	VOCs	8260	92280019
--	TB-01	12/14/2015	VOCs	8260	92279773
--	TB-01	12/14/2015	1,4-Dioxane	8260B Mod	92279773
--	TB-02	12/14/2015	VOCs	8260	92279773
--	TB-02	12/14/2015	1,4-Dioxane	8260B Mod	92279773
--	TB-03	12/14/2015	VOCs	8260	92279773
--	TB-03	12/14/2015	1,4-Dioxane	8260B Mod	92279773
--	TB-04	12/14/2015	VOCs	8260	92279773
--	TB-04	12/14/2015	1,4-Dioxane	8260B Mod	92279773
--	TB-05	12/14/2015	VOCs	8260	92279773
--	TB-05	12/14/2015	1,4-Dioxane	8260B Mod	92279773
--	TB-06	12/15/2015	VOCs	8260	92280019
--	TB-07	12/15/2015	VOCs	8260	92280019

Notes:

[a] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (VOCs).
[b] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (1,4-Dioxane).
[c] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (Total Cyanide).
[d] This sample was selected for matrix spike/matrix spike duplicate (MS/MSD) analyses (Free Cyanide).
Samples were analyzed by Pace Analytical Laboratories located in Indianapolis, Indiana, Asheville, North Carolina, and Charlotte, North Carolina.
SDG = Sample Delivery Group
VOCs = Volatile Organic Compounds

Prepared by/Date: LWC 1-25-16
Checked by/Date: JTP 2-5-16

TABLE 2
VALIDATION QUALIFIER SUMMARY
DECEMBER 2015 - SOIL
RBTC-BOONE FACILITY
NORTH CAROLINA

MATRIX	SAMPLE ID	SAMPLE DATE	SDG_ID	METHOD	PARAMETER	UNITS	LAB RESULT	LAB QUALIFIER	VALIDATION RESULT	VALIDATION QUALIFIER	REASON CODE
S	DS-19A (0-2)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	16	J, B	19.1	U	BL2
S	DS-19A (0-2)	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	47.7	U, L2	47.7	UJ	LCS-L
S	DS-19A (0-2)	12/14/2015	92279773	8260	Acetone	µg/kg	11.1	J	95.5	U	PJ
S	DS-19A (13-15)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	13.4	J	22	U	BL2
S	DS-19A (13-15)	12/14/2015	92279773	8260	Acetone	µg/kg	11.9	J	110	U	PJ
S	DS-19A (18-20)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	18.6	J	23.1	U	BL2
S	DS-19A (23-25)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	15.3	J	23.5	U	BL2
S	DS-19A (28-30)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	15.4	J	22.6	U	BL2
S	DS-19A (3-5)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	10.6	J	24.3	U	BL2
S	DS-19A (3-5)	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	60.8	U, L2	60.8	UJ	LCS-L
S	DS-19A (8-10)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	10.1	J, B	22.9	U	BL2
S	DS-19A (8-10)	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	57.2	U, L2	57.2	UJ	LCS-L
S	DS-20-A (0-2)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	11.4	J	24.4	U	BL2
S	DS-20-A (13-15)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	30.9	C9	30.9	U	BL2
S	DS-20-A (13-15)	12/14/2015	92279773	8260	Acetone	µg/kg	19.8	J	124	U	PJ
S	DS-20-A (18-20)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	28	C9	28	U	BL2
S	DS-20-A (18-20)	12/14/2015	92279773	8260	Acetone	µg/kg	29.1	J	118	U	PJ
S	DS-20A (23-25)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	5.6	J	25.4	U	BL2
S	DS-20A (28-30)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	46.3	C9	46.3	U	BL2
S	DS-20A (28-30)	12/14/2015	92279773	8260	Acetone	µg/kg	53.9	J	108	U	PJ
S	DS-20-A (3-5)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	17.9	J	22.6	U	BL2
S	DS-20-A (8-10)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	36.2	C9	36.2	U	BL2
S	DS-20-A (8-10)	12/14/2015	92279773	8260	1,1-Dichloroethane	µg/kg	38.6		38.6	JH	SR
S	DS-20-A (8-10)	12/14/2015	92279773	8260	Trichloroethene	µg/kg	120		120	JH	SR
S	DS-20-A (8-10)	12/14/2015	92279773	8260	cis-1,2-dichloroethene	µg/kg	41.5		41.5	JH	SR
S	DS-25A (0-2)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	22.7	J	25.3	U	BL2
S	DS-25A (18-20)	12/14/2015	92279773	8260	Acetone	µg/kg	34.7	J	126	U	BL2
S	DS-25A (18-20)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	34.2	C9	34.2	U	BL2
S	DS-25A (23-25)	12/14/2015	92279773	8260	Acetone	µg/kg	48.7	J	113	U	BL2
S	DS-25A (23-25)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	26.3	C9	26.3	U	BL2
S	DS-25A (28-30)	12/14/2015	92279773	8260	Acetone	µg/kg	117	J	131	U	BL2
S	DS-25A (28-30)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	25.8	J	26.2	U	BL2
S	DS-25A (3-5)	12/14/2015	92279773	8260	1,1,2,2-Tetrachloroethane	µg/kg	5.6	U, M1	5.6	UJ	MS-L
S	DS-25A (3-5)	12/14/2015	92279773	8260	1,1-Dichloroethane	µg/kg	33.1	M1	33.1	J	MS-H
S	DS-25A (3-5)	12/14/2015	92279773	8260	2-Butanone	µg/kg	32.2	J, M1	32.2	J	MS-L
S	DS-25A (3-5)	12/14/2015	92279773	8260	Acetone	µg/kg	229	M1	229	U	BL2
S	DS-25A (3-5)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	44.3	M1, C9	44.3	J	BL2, MS-L
S	DS-25A (3-5)	12/14/2015	92279773	8260	Tetrachloroethene	µg/kg	134	M1	134	J	MS-L
S	DS-25A (3-5)	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	55.5	U, M1	55.5	UJ	MS-L
S	DS-28A (0-2)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	9.4	J, B	20.6	U	BL2
S	DS-28A (0-2)	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	51.5	U, L2	51.5	UJ	LCS-L
S	DS-28A (0-2)	12/14/2015	92279773	8260	Acetone	µg/kg	13.7	J	103	U	PJ
S	DS-28A (18-20)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	9.6	J	21.5	U	BL2
S	DS-28A (18-20)	12/14/2015	92279773	8260	o-Xylene	µg/kg	3.3	J	5.4	U	BL2
S	DS-28A (18-20)	12/14/2015	92279773	8260	Acetone	µg/kg	40.8	J	107	U	PJ
S	DS-28A (23-25)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	11.9	J	24.2	U	BL2
S	DS-28A (23-25)	12/14/2015	92279773	8260	Acetone	µg/kg	16	J	121	U	PJ
S	DS-28A (28-30)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	11.6	J, C9	22.5	U	BL2
S	DS-28A (28-30)DUP	12/14/2015	92279773	8260	Acetone	µg/kg	60.5	J	116	U	PJ
S	DS-28A (30-32)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	61.5	C9	61.5	U	BL2
S	DS-28A (30-32)	12/14/2015	92279773	8260	Toluene	µg/kg	5.9		5.9	U	BL2
S	DS-28-A (30-32)	12/14/2015	92279773	8260	Acetone	µg/kg	79.3	J	117	U	PJ
S	DS-28A (3-5)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	11.3	J	23.6	U	BL2
S	DS-28A (3-5)	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	58.9	U, L2	58.9	UJ	LCS-L
S	DS-36B (13-15)	12/15/2015	92280019	8260	Acetone	µg/kg	53.8	J	112	U	BL2
S	DS-36B (13-15)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	12.7	J	22.5	U	BL2
S	DS-36B (18-20)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	13.8	J	20.2	U	BL2
S	DS-36B (23-25)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	20.6	J	23.3	U	BL2
S	DS-39A (0-2)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	10.8	J	20.3	U	BL2
S	DS-39A (13-15)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	20	C9	20	U	BL2
S	DS-39A (13-15)	12/15/2015	92280019	8260	Vinyl Acetate	µg/kg	45.2	U, L2	45.2	UJ	LCS-L
S	DS-39A (13-15)	12/15/2015	92280019	8260	m&p-Xylene	µg/kg	4.9	J	9	U	BL2
S	DS-39A (18-20)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	19.2	J, M1	22.6	U	BL2
S	DS-39A (18-20)	12/15/2015	92280019	8260	Vinyl Acetate	µg/kg	56.6	U, L2	56.6	UJ	LCS-L
S	DS-39A (23-25)	12/15/2015	92280019	8260	Acetone	µg/kg	18.6	J	119	U	BL2
S	DS-39A (23-25)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	22.5	J	23.7	U	BL2
S	DS-39A (23-25)	12/15/2015	92280019	8260	Vinyl Acetate	µg/kg	59.3	U, L2	59.3	UJ	LCS-L
S	DS-39A (23-25)DUP	12/16/2015	92280019	8260	Acetone	µg/kg	15.1	J	133	U	PJ
S	DS-39A (28-30)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	36.6	C9	36.6	U	BL2
S	DS-39A (28-30)	12/15/2015	92280019	8260	Vinyl Acetate	µg/kg	64.6	U, L2	64.6	UJ	LCS-L
S	DS-39A (3-5)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	18.6	J	20.7	U	BL2
S	DS-39A (8-10)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	24.1	C9	24.1	U	BL2
S	DS-41A (0-2)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	7.1	J	24.2	U	BL2
S	DS-41A (3-5)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	14.1	J	22.6	U	BL2
S	DS-41A (3-5)	12/15/2015	92280019	8260	Vinyl Acetate	µg/kg	56.4	U, L2	56.4	UJ	LCS-L
S	DS-44A (0-2)	12/15/2015	92280019	8260	Vinyl Acetate	µg/kg	1380	U, L2	1380	UJ	LCS-L
S	DS-44A (3-5)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	13.8	J	23.9	U	BL2
S	DS-44A (8-10)	12/15/2015	92280019	8260	Methylene Chloride	µg/kg	4.3	J, C9	19.7	U	BL2
S	DS-51 (0-2)	12/14/2015	92279773	8260	Acetone	µg/kg	1210	E	1210	U	PJ
S	DS-52 (3-5)	12/14/2015	92279773	8260	Acetone	µg/kg	32.2	J	128	U	BL2
S	DS-52 (3-5)	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	55.1	C9	55.1	JH	SR
S	DS-52 (3-5)	12/14/2015	92279773	8260	cis-1,2-dichloroethene	µg/kg	3.6	J	3.6	JH	SR
S	DS-52 (3-5)DUP	12/14/2015	92279773	8260	Acetone	µg/kg	104	J	110	U	PJ
S	DS-53 (0-2)	12/14/2015	92279773	8260	Acetone	µg/kg	48.3	J	132	U	BL2
S	DS-53 (13-15)	12/14/2015	92279773	8260	Hexachloro-1,3-butadiene	µg/kg	6.3	U, M1	6.3	UJ	MS-L
S	DS-53 (13-15)	12/14/2015	92279773	8260	Styrene	µg/kg	6.3	U, M1	6.3	UJ	MS-L
S	SB-20A (5.0)	12/15/2015	92280019	4500	Total Cyanide	mg/kg	0.69	R1	0.69	J	MS-R
S	TB-02	12/14/2015	92279773	8260	Methylene Chloride	µg/kg	11.9	J, B	20	U	BL2
S	TB-02	12/14/2015	92279773	8260	Vinyl Acetate	µg/kg	50	U, L2	50	UJ	LCS-L

Notes:
Laboratory qualifiers that *did not change* as a result of the data validation are not shown on this table.
B - Analyte was detected in the associated method blank.
BL2 - Concentration in sample less than 5 times (10 times for common contaminants) concentration in field blank, rinse blank or trip blank sample.
C9 - Common Laboratory Contaminant.
H - Possibly biased high.
J - Value is estimated.
L2 - Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
LCS-L - Concentration in sample is considered estimated possibly biased low due to low Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) recoveries.
M1 - Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
µg/kg - microgram per kilogram
mg/kg - milligram per kilogram
MS-L - Matrix spike (MS)/Matrix spike duplicate (MSD) recovery less than the QC limits.
MS-R - MS/MSD Relative Percent Difference (RPD) exceeded QC limits.
U - not detected, value is the detection limit
R1 - RPD value was outside control limits (laboratory qualifier).
S - Soil

Prepared by / Date: LWC 1/26/16
Checked by / Date: JTP 02/05/16

Relative Percent Difference (RPD) on Laboratory Duplicate Samples - December Soil 2015
Former Robert Bosch Tool Corporation Boone Division
Boone, North Carolina
AMEC Project 6251121001.03.01

Constituents	DS-20-A (8-10) (1633453)	1633453 Duplicate	RPD (%)	DS-25A (28-30) (1633999)	1633999 Duplicate	RPD (%)	DS-28A (3-5) (1632520)	1632520 Duplicate	RPD (%)	DS-28A (28-30) (1634000)	1634000 Duplicate	RPD (%)	DS-39A (23-25) (1635305)	1635305 Duplicate	RPD (%)	DS-52A (3-5) (1634157)	1634157 Duplicate	RPD (%)
Acetone	ND	NA	--	117 J	ND	--	ND	NA	--	ND	60.5 J	--	18.6 J	15.1 J	--	32.2 J	104 J	--
Chloroform	ND	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
cis-1,2-Dichloroethene	41.5	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	3.9 J	6.0 J	--	3.6 J	4.4 J	--
1,1-Dichloroethane	38.5	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
1,1-Dichloroethene	ND	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
1,4-Dioxane	ND	ND	--	ND	ND	--	ND	ND	--	NA	NA	--	ND	ND	--	ND	ND	--
Methylene Chloride	36.2	NA	--	25.8 J	106	--	11.3 J	NA	--	11.6 J	57.4	--	22.5 J	9.0 J	--	55.1	7.8 J	--
Tetrachloroethene	2990	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
trans-1,2-Dichloroethene	ND	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
1,1,1-Trichloroethane	58.5	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
Trichloroethene	120	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
Vinyl Chloride	ND	NA	--	ND	ND	--	ND	NA	--	ND	ND	--	ND	ND	--	ND	ND	--

Constituents	1632941	1632941 Duplicate	RPD (%)	1633892 (ug/L)	1633892 Duplicate (ug/L)	RPD (%)	1635099	1635099 Duplicate	RPD (%)	1635303	1635303 Duplicate	RPD (%)	1636221	1636221 Duplicate	RPD (%)
Acetone	ND	ND	--	ND	ND	--	ND	32.3 J	--	ND	ND	--	ND	ND	--
Chloroform	ND	ND	--	1.4	1.3	7.4	ND	ND	--	ND	ND	--	ND	ND	--
cis-1,2-Dichloroethene	ND	6.5 J	--	490	466	5.0	ND	ND	--	ND	ND	--	ND	ND	--
1,1-Dichloroethane	ND	ND	--	0.72 J	0.77 J	--	ND	ND	--	ND	ND	--	ND	ND	--
1,1-Dichloroethene	ND	ND	--	0.78 J	0.76 J	--	ND	ND	--	ND	ND	--	ND	ND	--
1,4-Dioxane	ND	ND	--	NA	NA	--	ND	ND	--	ND	ND	--	ND	ND	--
Methylene Chloride	45.9	27.2 J	--	ND	ND	--	ND	24	--	ND	ND	--	12.6 J	18.5 J	--
Tetrachloroethene	ND	2.9 J	--	11,800	11,200	5.2	ND	ND	--	ND	ND	--	ND	ND	--
trans-1,2-Dichloroethene	ND	ND	--	1.4	1.5	6.9	ND	ND	--	ND	ND	--	ND	ND	--
1,1,1-Trichloroethane	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	--
Trichloroethene	ND	ND	--	270	237	13	ND	ND	--	ND	ND	--	ND	ND	--
Vinyl Chloride	ND	ND	--	1.0	1.1	10	ND	ND	--	ND	ND	--	ND	ND	--

Notes:
Units in micrograms per kilogram (µg/kg).
J = Value estimated, less than the reporting limit.
ND = Not Detected.
RPD is not calculated if one or more constituent is reported as estimated (J) if < RL or if a constituent is detected in the parent sample, but not the duplicate or visa versa.

DATA VALIDATION RECORD

Method SW8260 for VOCs
Project Name and No: RBTC Boone; 6251121001.03.01
Laboratory and SDG: Pace Analytical, 92279773
Data Validation Level: II
Date: 1/21/2016
Reviewer: L. Clem Senior Reviewer: T. Parker 2/5/2016
Samples Reviewed: DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-19A (13-15), DS-19A (18-20), DS-19A (23-25), DS-19A (28-30), DS-20-A (0-2), DS-20-A (3-5), DS-20-A (8-10), DS-20-A (13-15), DS-20-A (18-20), DS-20A (23-25), DS-20A (28-30), DS-25A (0-2), DS-25A (3-5), DS-25A (8-10), DS-25A (13-15), DS-25A (18-20), DS-25A (23-25), DS-25A (28-30), DS-28A (0-2), DS-28A (3-5), DS-28A (8-10), DS-28A (13-15), DS-28A (18-20), DS-28A (23-25), DS-28A (28-30), DS-28A (30-32), DS-51 (0-2), DS-51 (3-5), DS-51 (8-10), DS-51 (13-15), DS-52 (0-2), DS-52 (3-5), DS-52 (8-10), DS-52 (13-15), DS-53 (0-2), DS-53 (3-5), DS-53 (8-10), DS-53 (13-15), FB-01, TB-01, TB-02, TB-03, TB-04, and TB-05.

1. Case Narrative and COC review

Case Narrative (pgs. 11-15 of data package) and COC (pgs. 165-168 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (water samples Preserved with Hydrochloric Acid (HCl); soil samples preserved with sodium bisulfate, deionized water, or methanol; Cool to 4 ºC), Holding time (14 days)

Samples analyzed for VOCs preserved; cooler temp 5.8ºC, per “Sample/Cooler Receipt Checklist” pg. 164 of Summary. Samples collected: 12/14/15; Samples Prepped and Analyzed: 12/17/15, 12/19/15, 12/20/15, and 12/21/15.

3. Instrument Tuning

Not required for Level II.

4. Instrument Calibration

Not required for Level II.

5. Calibration range

Not required for Level II.

6. QC Blanks

Method Blanks:

Pgs. 112-113, 12/19/15, MB-1633889, All non-detect.

Pgs. 118-119, 12/16/15, MB-1630372, Methylene Chloride=3.4J ug/kg x 10=34 ug/L, Naphthalene=1.7J ug/kg x 5=8.5 ug/kg. Naphthalene was not detected.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-19A (0-2)	Methylene Chloride	16 J, B	U at RL of 19.1*
DS-19A (3-5)	Methylene Chloride	10.6 J	U at RL of 24.3*
DS-19A (8-10)	Methylene Chloride	10.1 J, B	U at RL of 22.9*
DS-28A (0-2)	Methylene Chloride	9.4 J, B	U at RL of 20.6*
DS-28A (3-5)	Methylene Chloride	11.3 J	U at RL of 23.6*
TB-02	Methylene Chloride	11.9 J, B	U at RL of 20*

Pgs. 122-123, 12/17/15, MB-1631914, All non-detect.

Pgs. 129-130, 12/19/15, MB-1633897, All non-detect.

Pgs. 136-137, 12/19/15, MB-1633899, Naphthalene=1.8J ug/kg x 5=9 ug/kg. Associated samples were non-detect for naphthalene – no flags.

Pgs. 143-144, 12/20/15, MB-1634021, All non-detect.

Pgs. 150-151, 12/21/15, MB-1634344, Naphthalene=1.8J ug/kg x 5=9 ug/kg. Associated samples were non-detect for naphthalene – no flags.

Field Blank

Pgs. 18-19, FB-01, Ethylbenzene=0.35J ug/L x 5 =1.75 ug/L, Toluene=1.9 ug/L x 5=9.5 ug/L, m&p-Xylene=1.4J ug/L x 5=7 ug/L, and o-Xylene=0.86J ug/L x 5=4.3 ug/L.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-28A (18-20)	o-Xylene	3.3 J	U at RL of 5.4*
DS-28A (30-32)	Toluene	5.9	U at 5.9 µg/Kg

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Rinse Blanks

Rinse blanks were not included in this SDG.

Trip Blank:

Pgs. 16-17, 12/14/15, TB-01, Methylene Chloride=15.1J ug/kg x 10=151 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-19A (0-2)	Methylene Chloride	16 J, B	U at RL of 19.1*
DS-19A (3-5)	Methylene Chloride	10.6 J	U at RL of 24.3*
DS-19A (8-10)	Methylene Chloride	10.1 J, B	U at RL of 22.9*
DS-28A (0-2)	Methylene Chloride	9.4 J, B	U at RL of 20.6*
DS-28A (3-5)	Methylene Chloride	11.3 J	U at RL of 23.6*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 34-35, 12/14/15, TB-02, Methylene Chloride=11.9J ug/kg x 10=119 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-19A (13-15)	Methylene Chloride	13.4 J	U at RL of 22*
DS-19A (18-20)	Methylene Chloride	18.6 J	U at RL of 23.1*
DS-19A (23-25)	Methylene Chloride	15.3 J	U at RL of 23.5*
DS-19A (28-30)	Methylene Chloride	15.4 J	U at RL of 22.6*
DS-28A (18-20)	Methylene Chloride	9.6 J	U at RL of 21.5*
DS-28A (23-25)	Methylene Chloride	11.9 J	U at RL of 24.2*
DS-28A (28-30)	Methylene Chloride	11.6 J, C9	U at RL of 22.5*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.
Note: The laboratory flag “C9” under the concentration column indicates the constituent is a common laboratory contaminant.

Pgs. 50-51, 12/14/15, TB-03, Methylene Chloride=15.4J ug/kg x 10=154 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-20-A (0-2)	Methylene Chloride	11.4 J	U at RL of 24.4*
DS-20-A (13-15)	Methylene Chloride	30.9 C9	U at 30.9 µg/kg
DS-20-A (18-20)	Methylene Chloride	28 C9	U at 28 µg/kg
DS-20-A (3-5)	Methylene Chloride	17.9 J	U at RL of 22.6*
DS-20-A (8-10)	Methylene Chloride	36.2 C9	U at 36.2 µg/kg
DS-20A (28-30)	Methylene Chloride	46.3 C9	U at 46.3 µg/kg
DS-28A (30-32)	Methylene Chloride	61.5 C9	U at 61.5 µg/kg

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 68-69, 12/14/15, TB-04, Acetone=23.9J ug/kg x 10=239 ug/kg, Methylene Chloride=44.6 ug/kg x 10=446 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-20A (23-25)	Methylene Chloride	5.6 J	U at RL of 25.4*
DS-25A (0-2)	Methylene Chloride	22.7 J	U at RL of 25.3*
DS-25A (18-20)	Acetone	34.7 J	U at RL of 126*
DS-25A (18-20)	Methylene Chloride	34.2 C9	U at 34.2 µg/kg
DS-25A (23-25)	Acetone	48.7 J	U at RL of 113*
DS-25A (23-25)	Methylene Chloride	26.3 C9	U at 26.3 µg/kg
DS-25A (28-30)	Acetone	117 J	U at RL of 131*
DS-25A (28-30)	Methylene Chloride	25.8 J	U at RL of 26.2*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag “U”.

Pgs. 82-83, 12/14/15, TB-05, Acetone=27.1J µg/kg x 10=271 µg/kg, 2-Butanone=13.0J µg/kg x 10=130 µg/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-25A (3-5)	Acetone	229 M1	U at 229 µg/kg
DS-25A (3-5)	Methylene Chloride	44.3 M1, C9	U at 44.3 µg/kg
DS-52 (3-5)	Acetone	32.2 J	U at RL of 128*
DS-53 (0-2)	Acetone	48.3 J	U at RL of 132*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

7. Laboratory Control Sample (LCS) Results (Lab limits)

Pgs. 113-114, LCS-1633890, LCS within limits.

Pgs. 119-121, LCS-1630373,

Compound	LCS%Rec	Flag	Reason Code
Vinyl Acetate	36	J/UJ	LCS-L

Affected Samples:

- DS-28A (0-2)
- DS-28A (3-5)
- DS-19A (0-2)
- DS-19A (3-5)
- DS-19A (8-10)
- TB-02

Pgs. 123-125, LCS-1631915, LCS within limits.
Pgs. 130-132, LCS-1633898, LCS within limits.
Pgs. 137-139, LCS-1633900, LCS within limits.
Pgs. 144-146, LCS-1634022, LCS within limits.
Pgs. 151-153, LCS-1634345, LCS within limits.

8. Internal Standards (50 - 200 %)

Not required for Level II.

9. Surrogate Recovery (70-128%)

All surrogates within lab limits, with the exception of two surrogates.

Pgs. 54-55, Sample DS-20-A (8-10),

Compound	Surrogate %Rec	Flag	Reason Code
1,2-Dichloroethane-d4	150%	JH	SR

Several of the VOCs associated with the surrogate 1,2-dichloroethane-d4 (acetone, acrylonitrile, bromomethane, carbon disulfide, chloroethane, chloroform, chloromethane, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene,

trichloroethene, trans-1,2-dichloroethene, iodomethane, methylene chloride, trichlorofluoromethane, and vinyl chloride) were detected in this sample (DS-20-A (8-10)) and the surrogate recovery is biased high – **A "JH" flag was applied to the detections for 1,1-dichloroethane, cis-1,2-dichloroethene and trichloroethene.** Methylene chloride was excluded because it had already been flagged "U" and raised to the concentration reported (36.2 µg/Kg) due to blank contamination. Since the surrogate was biased high, there is no need to flag non-detects.

Pgs. 100-101, Sample DS-52 (3-5),

Compound	Surrogate %Rec	Flag		Reason Code
1,2-Dichloroethane-d4	139%	JH	SR	

cis-1,2-Dichloroethene and methylene chloride were flagged with a "JH" due to the high bias of the surrogate recovery. Acetone was already flagged "U" and raised to the RL.

10. Field Duplicate Precision (≤ 50 %)

Field duplicates were not included in this SDG.

11. Laboratory Duplicate Precision (≤ 50 %)

Pgs. 116-117, 1633892 (non-project sample 92279649002) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Chloroform	1.4	1.3	6 (7.4)	none
cis-1,2-Dichloroethene	490	466	6 (5)	none
1,1-Dichloroethane	0. 72 J	0.77 J	--	none
1,1-Dichloroethene	0. 78 J	0.76 J	--	none
Tetrachloroethene	11,800	11,200	5 (5.2)	none
trans-1,2-Dichloroethene	1.4	1.5	3 (6.9)	none
Trichloroethene	270	237	12 (13)	none
Vinyl Chloride	1.0	1.1	3 (10)	none

Pgs. 127-128, 1632941 (non-project sample 92279930024)/Duplicate

Compound	Sample	Duplicate	RPD	Flag
cis-1,2-Dichloroethene	ND	6.5 J	--	none
Methylene Chloride	45.9	27.2 J	--	none
Tetrachloroethene	ND	2.9 J	--	none

Pgs. 134-135, 1634000 (project sample 92279773011 [DS-28A (28-30)]) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	ND	60.5 J	--	none
Methylene Chloride	11.6 J	57.4	--	none

Pgs. 141-142, 1633999 (project sample 92279773031 [DS-25A (28-30)]) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	117 J	ND	--	none
Methylene Chloride	25.8 J	106	--	none

Pgs. 148-149, 1634157 (project sample 92279773043 [DS-52 (3-5)]) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	32.2 J	104 J	--	none
cis-1,2-Dichloroethene	3.6 J	4.4 J	--	none
Methylene Chloride	55.1	7.8 J	--	none

Pgs. 155-156, 1635099 (non-project sample 92279774001) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	ND	32.3 J	--	none

12. Matrix Spike/Matrix spike Duplicate (MS/MSD) (43-180 %/RPD ≤ 30 %)

Pgs. 132-134, MS-1634001, project sample 92279773023 [DS-20-A (13-15)].

Above MS was within QC limits.

Pgs. 115-116, MS-1633891, non-project sample 92279987001. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
Bromomethane	61	none	non-project sample
Carbon Tetrachloride	138	none	non-project sample
Hexachloro-1,3-butadiene	148	none	non-project sample

Pgs. 125-126, MS-1632940, non-project sample 92279930018. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
Acetone	44	none	non-project sample
Methylene Chloride	40	none	non-project sample

Pgs. 139-140, MS-1633998, project sample 92279773035 [DS-25A (3-5)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,1,2,2-Tetrachloroethane	27	UJ	MS-L
1,1-Dichloroethane	193	J	MS-H
2-Butanone	51	J*	MS-L
Acetone	-310	U	Already flagged “U”/BL2
Methylene Chloride	-38	J	MS-L
Tetrachloroethene	13	J	MS-L
Vinyl Acetate	20	UJ	MS-L

*This sample result was already qualified as estimated due to detection at a concentration less than the reporting limit. No further qualification required.

Pgs. 146-147, MS-1634158, project sample 92279773044 [DS-53 (13-15)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,1,2,2-Tetrachloroethane	133	none	not detected
1,2,3-Trichloropropane	132	none	not detected
1,2-Dibromo-3-chloropropane	151	none	not detected
1,4-Dioxane	141	none	not detected
2-Butanone	155	none	not detected
2-Hexanone	158	none	not detected
4-Methyl-2-pentanone	162	none	not detected
Acetone	206	none	not detected
Hexachloro-1,3-butadiene	65	UJ	MS-L
Methyl-tert-butyl ether	144	none	not detected
Styrene	54	UJ	MS-L
Vinyl Acetate	131	none	not detected

Pgs. 153-154, MS-1635100, non-project sample 92279398001. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
1,1,2,2-Tetrachloroethane	153	none	non-project sample
1,2,3-Trichloropropane	149	none	non-project sample
1,2-Dibromo-3-chloropropane	153	none	non-project sample
1,4-Dioxane	162	none	non-project sample
2-Butanone	158	none	non-project sample
2-Hexanone	195	none	non-project sample
4-Methyl-2-pentanone	179	none	non-project sample
Acetone	177	none	non-project sample
Methyl-tert-butyl ether	140	none	non-project sample
Methylene Chloride	152	none	non-project sample
Naphthalene	148	none	non-project sample
Vinyl Acetate	174	none	non-project sample

13. Raw Calculations

Not required for Level II.

14. Professional Judgement Qualification

The detections for acetone in this SDG were qualified as undetected (“U” flag) at the Reporting Limit, since most detections were below the RL. This approach was taken because the soil samples were collected and preserved in sodium bisulfate which is known to chemically interact with clayey soils and produces acetone. The following samples were affected:

Sample ID	Flag
DS-19A (0-2)	95.5 U

DS-19A (13-15)	110 U
DS-20-A (13-15)	124 U
DS-20-A (18-20)	118 U
DS-20A (28-30)	108 U
DS-28A (0-2)	103 U
DS-28A (18-20)	107 U
DS-28A (23-25)	121 U
DS-28A (23-25)DUP	116 U
DS-28-A (30-32)	117 U

DS-51 (0-2) Flagged “E” by laboratory, so raised U to 1,210 ug/kg

DS-52 (3-5)DUP	110 U

15. Electronic Data Review

Ten percent of the EDD results for VOCs (samples DS-20-A (8-10), DS-25A (8-10), DS-28A (0-2), DS-28A (8-10), DS-52 (0-2)) were compared to the laboratory data report to confirm accuracy of the EDD. Results listed in summary package were confirmed in the EDD.

DATA VALIDATION RECORD

Method SW8260 for VOCs
Project Name and No: RBTC Boone; 6251121001.03.01
Laboratory and SDG: Pace Analytical, 92280019
Data Validation Level: II
Date: 1/25/2016
Reviewer: L. Clem Senior Reviewer: T. Parker 2/5/2016
Samples Reviewed: DS-36B (13-15), DS-36B (18-20), DS-36B (23-25), DS-39A (0-2), DS-39A (3-5), DS-39A (8-10), DS-39A (13-15), DS-39A (23-25), DS-39A (18-20), DS-39A (28-30), DS-41A (0-2), DS-41A (3-5), DS-44A (0-2), DS-44A (3-5), DS-44A (8-10), FB-02, TB-06, and TB-07.

1. Case Narrative and COC review

Case Narrative (pgs. 7-13 of data package) and COC (pgs. 107-109 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (water samples Preserved with Hydrochloric Acid (HCl); soil samples preserved with sodium bisulfate, deionized water, or methanol; Cool to 4 ºC), Holding time (14 days)

Samples analyzed for VOCs preserved; cooler temp 4.5ºC, per "Sample/Cooler Receipt Checklist" pg. 106 of Summary. Samples collected: 12/15/15; Samples Prepped and Analyzed: 12/19/15 and 12/22/15.

3. Instrument Tuning

Not required for Level II.

4. Instrument Calibration

Not required for Level II.

5. Calibration range

Not required for Level II.

6. QC Blanks

Method Blanks:

Pgs. 67-68, 12/19/15, MB-1633889, All non-detect.

Pgs. 73-74, 12/21/15, MB-1634659, All non-detect.

Pgs. 80-81, 12/21/15, MB-1634662, Naphthalene=1.7J ug/kg x 5=8.5 ug/kg. Naphthalene was not detected.

Pgs. 87-88, 12/22/15, MB-1635236, Naphthalene=1.7J µg/kg x 5=8.5 µg/kg. Naphthalene was not detected.

Pgs. 94-95, 12/22/15, MB-1635393, All non-detect.

Field Blank

Pgs. 21-22, FB-02, Ethylbenzene=0.33J µg/L x 5 =1.65 µg/L, Toluene=1.3 µg/L x 5=6.5 µg/L, m&p-Xylene=1.1J µg/L x 5=5.5 µg/L, and o-Xylene=0.66J µg/L x 5=3.3 µg/L.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-39A (13-15)	m&p-Xylene	4.9 J	U at RL of 9*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

Rinse Blanks

Rinse blanks were not included in this SDG.

Trip Blank:

Pgs. 23-24, 12/15/15, TB-06, Acetone=13.7J µg/kg x 10=137 µg/kg, Methylene Chloride=10.2J µg/kg x 10=102 µg/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-36B (13-15)	Acetone	53.8 J	U at RL of 112*
DS-36B (13-15)	Methylene Chloride	12.7 J	U at RL of 22.5*
DS-36B (18-20)	Methylene Chloride	13.8 J	U at RL of 20.2*
DS-36B (23-25)	Methylene Chloride	20.6 J	U at RL of 23.3*
DS-39A (0-2)	Methylene Chloride	10.8 J	U at RL of 20.3*
DS-39A (3-5)	Methylene Chloride	18.6 J	U at RL of 20.7*
DS-39A (8-10)	Methylene Chloride	24.1 C9	U at 24.1 µg/kg
DS-39A (13-15)	Methylene Chloride	20 C9	U at 20.0 µg/kg
DS-39A (18-20)	Methylene Chloride	19.2 J, M1	U at RL of 22.6*
DS-39A (23-25)	Acetone	18.6 J	U at RL of 119*
DS-39A (23-25)	Methylene Chloride	22.5 J	U at RL of 23.7*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

Pgs. 43-44, 12/15/15, TB-07, Methylene Chloride=14.3J ug/kg x 10=143 ug/kg.

Associated Samples	Compound	Concentration	Flag U (BL2)
DS-39A (28-30)	Methylene Chloride	36.6 C9	U at 36.6 µg/kg
DS-41A (0-2)	Methylene Chloride	7.1 J	U at RL of 24.2*
DS-41A (3-5)	Methylene Chloride	14.1 J	U at RL of 22.6*
DS-44A (3-5)	Methylene Chloride	13.8 J	U at RL of 23.9*
DS-44A (8-10)	Methylene Chloride	4.3 J, C9	U at RL of 19.7*

*Per validation guidelines, for blank impacted sample detections below the Reporting Limit (RL), raise sample result to the RL and flag "U".

7. Laboratory Control Sample (LCS) Results (Lab limits)

Pgs. 68-69, LCS-1633890, LCS within limits.
Pgs. 74-76, LCS-1634660, LCS within limits.

Pgs. 81-83, LCS-1634663,

Compound	LCS%Rec	Flag	Reason Code
Vinyl Acetate	32	J/UJ	LCS-L

The samples affected were: DS-39A (13-15), DS-39A (23-25), DS-39A (18-20), DS-39A (28-30), DS-41A (3-5), DS-44A (0-2).

Pgs. 88-90, LCS-1635237, LCS within limits.
Pgs. 95-97, LCS-1635394, LCS within limits.

8. Internal Standards (50 - 200 %)

Not required for Level II.

9. Surrogate Recovery (70-132%)

All surrogates within lab limits, with the exception of one surrogate.

Pgs. 29-30, Sample DS-36B (23-25),

Compound	Surrogate %Rec	Flag	Reason Code
1,2-Dichloroethane-d4	150%	None	SR

Methylene chloride is associated with the surrogate 1,2-dichloroethane-d4. The other VOCs associated with 1,2-dichloroethane-d4 are acetone, acrylonitrile, bromomethane, carbon disulfide, chloroethane, chloroform, chloromethane, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, trichloroethene, trans-1,2-dichloroethene, iodomethane, methylene chloride, trichlorofluoromethane, and vinyl chloride. Only methylene chloride was detected, at a concentration below the RL, and was qualified as undetected (U flag) at the RL of 23.3 ug/kg due to blank contamination. Therefore, additional qualification was not required due to the high surrogate recovery.

10. Field Duplicate Precision (≤ 50 %)

Field duplicates were not included in this SDG.

11. Laboratory Duplicate Precision ((≤ 30 % water, ≤ 50 % soil)

Pgs. 71-72, 1633892 (non-project sample 92279649002) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Chloroform	--	1.3	6	none
cis-1,2-Dichloroethene	490	466	6 (5)	none
1,1-Dichloroethane	0. 72 J	0.77 J	--	none
1,1-Dichloroethene	0. 78 J	0.76 J	--	none
Tetrachloroethene	11,800	11,200	5 (5.2)	none
trans-1,2-Dichloroethene	1.4	1.5	3 (6.9)	none
Trichloroethene	270	237	12 (13)	none
Vinyl Chloride	1.0	1.1	3 (10)	none

Pgs. 78-79, 1635303 (non-project sample 92279959001)/Duplicate; All non-detect.
Pgs. 85-86, 1635305 (project sample 92280019015 [DS-39A (23-25)]) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Acetone	18.6 J	15.1 J	--	none
cis-1,2-Dichloroethene	3.9 J	6.0 J	--	none
Methylene Chloride	22.5 J	9.0 J	--	none

Pgs. 92-93, 1636221 (non-project sample 92280058001) /Duplicate

Compound	Sample	Duplicate	RPD	Flag
Methylene Chloride	12.6 J	18.5 J	--	none

12. Matrix Spike/Matrix spike Duplicate (MS/MSD) (43-180 %/RPD ≤ 30 %)

Pgs. 70-71, MS-1633891, non-project sample 92279987001. No qualification applied for non-project sample performance.

Pgs. 76-77, MS-1635304, non-project sample 92280012001. No qualification applied for non-project sample performance.

Pgs. 83-84, MS-1635306, project sample 92280019016 [DS-41A (3-5)]. The following VOCs were outside QC limits:

Compound	MS%Rec	Flag	Reason Code
Bromomethane	133	none	not detected
Methylene Chloride	58	none*	MS-L

*This sample result was already qualified as non-detect, raised to the reporting limit, and flagged "U" and due to detection in a blank. No further qualification required.

Pgs. 90-91, MS-1636222, non-project sample 92280058002. No qualification applied for non-project sample performance.

Pgs. 97-98, MS-1635396 / MSD-1635397, non-project sample 92280546015. No qualification applied for non-project sample performance.

13. Raw Calculations

Not required for Level II.

14. Professional Judgement Qualification

The detection for acetone in sample DS-39A (23-25)DUP was qualified as undetected ("U" flag) at the Reporting Limit (RL), since the detection was below the RL. This approach was taken because the soil sample was collected and preserved in sodium bisulfate which is known to chemically interact with clayey soils and produce acetone.

15. Electronic Data Review

Ten percent of the EDD results for VOCs (samples DS-36B (13-15), DS-39A (13-15)) were compared to the laboratory data report to confirm accuracy of the EDD. Results listed in summary package were confirmed in the EDD.

DATA VALIDATION RECORD

Method SW8260B Mod for 1,4-Dioxane
Project Name and No: RBTC Boone; 6251121001.03.04
Laboratory and SDG: Pace Analytical, 92279773
Data Validation Level: II
Date: 1/26/2016
Reviewer: L. Clem Senior Reviewer: T. Parker 2/5/2016
Samples Reviewed: DS-19A (0-2), DS-19A (3-5), DS-19A (8-10), DS-19A (13-15), DS-19A (18-20), DS-19A (23-25), DS-19A (28-30), DS-20-A (0-2), DS-20-A (3-5), DS-20-A (8-10), DS-20-A (13-15), DS-20-A (18-20), DS-20A (23-25), DS-20A (28-30), DS-25A (0-2), DS-25A (3-5), DS-25A (8-10), DS-25A (13-15), DS-25A (18-20), DS-25A (23-25), DS-25A (28-30), DS-28A (0-2), DS-28A (3-5), DS-28A (8-10), DS-28A (13-15), DS-28A (18-20), DS-28A (23-25), DS-28A (28-30), DS-28A (30-32), TB-01, TB-02, TB-03, TB-04, and TB-05.

1. Case Narrative and COC review

Case Narrative (pgs. 9-10 of data package) and COC (pgs. 165-168 of data package) present for all samples in this SDG.

2. Sample Collection, Preservation (soil samples preserved with sodium bisulfate, deionized water, or methanol; Cool to 4 ºC), Holding time (14 days)

Samples analyzed for 1,4-Dioxane preserved; cooler temp 5.8ºC per “Sample Condition Upon Receipt” checklist pg. 164 of Summary. Samples collected: 12/14/15; Prepped and analyzed: 12/17/15 and 12/18/15.

3. Instrument Tuning

Not required for Level II validation.

4. Instrument Calibration

Not required for Level II validation.

5. QC Blanks

Method Blanks:

Pg. 110, 12/17/15, 1632009, No Detects.
Pg. 111, 12/18/15, 1632721, No Detects.

Rinse (Equipment) Blanks:

No rinse blanks for this data set.

Field Blanks:

No field blanks for this data set.

Trip Blank:

Pgs. 16-17, 12/14/15, TB-01, 1,4-Dioxane not detected.

Pgs. 34-35, 12/14/15, TB-02, 1,4-Dioxane not detected.

Pgs. 50-51, 12/14/15, TB-03, 1,4-Dioxane not detected.

Pgs. 68-69, 12/14/15, TB-04, 1,4-Dioxane not detected.

Pgs. 82-83, 12/14/15, TB-05, 1,4-Dioxane not detected.

6. Laboratory Control Sample (LCS) Results (Lab limits)

Pg. 110, LCS-1632010, LCS are within required QC limits.
Pg. 111, LCS-1632722, LCS are within required QC limits.

7. Internal Standards (50 - 200 %)

Not required for Level II validation.

8. Surrogate Recovery (50-150%)

All surrogates within lab limits.

9. Field Duplicate Precision (≤ 50 %)

Field duplicates were not included for this SDG.

10. Laboratory Duplicate Precision (≤ 50 %)

The 1,4-dioxane results for parent and duplicate sample pairs DS-20-A (8-10)/ Duplicate and DS-28A (3-5)/ Duplicate were non-detect, so Relative Percent Difference calculations could not be made.

11. Matrix Spike/Matrix Spike Duplicate (MS/MSD) (50-150 %/RPD ≤ 30 %)

Pg. 110, MS-1632508, project sample 92279773003 (DS-28A (0-2))
Pg. 111, MS-1633454, project sample 92279773021 (DS-20A (18-20))

Above MS/MSD were within QC limits.

12. Raw Calculations

Not required for Level II validation.

13. Electronic Data Review

Results listed in summary package were compared to EDD – all ok.

DATA VALIDATION RECORD

Method SM 4500-CN-E (Total Cyanide)
Project Name and No: RBTC Boone: 6251121001.03.01
Laboratory and SDG: PACE Analytical, 92280019
Data Validation Level: II
Date: 1/20/2016
Reviewer: L. Clem **Senior Reviewer: T. Parker 2/5/2016**

Samples Reviewed: SB-17A (5.0), SB-17A (10.0), SB-17A (15.0), SB-20A (0.5), SB-20A (5.0), SB-20A (10.0), SB-20B (5.0), SB-20C (5.0), SB-46A (15), SB-46A (20), SB-48A (0.5), SB-48A (5.0), SB-48ZB (0.5), SB-48C (0.5), and SB-48D (0.5).

1. **Case Narrative and COC review**

Case Narrative (pg. 14 of summary) & the COC (pgs. 107-109 of Summary) was present for samples in this SDG.

2. **Sample Collection, Preservation; plastic or glass bottle; unpreserved; cool to 4ºC ± 2 ºC; Holding time (28 days – 14 days to extract & 14 days to analyze)**

Sample analyzed for Total Cyanide; cooler temp 4.5ºC per page 106 “Sample Condition Upon Receipt” (SCUR) checklist. Samples collected: 12/14/15, 12/15/15; Prepped and Analyzed: 12/19/15.

3. **Instrument Initial Calibration**

Not required for Level II.

4. **Continuing Calibration**

Not required for Level II.

5. **QC Blanks**

Method Blanks:

Pg. 101, 12/19/15 MB 1633131, All non-detect.

Rinse Blank

A rinse Blank was not included in this SDG.

6. **Laboratory Control Sample (LCS) Results (90-110 %)**

Pg. 101, LCS 1633132, LCS is within required QC limits.

7. Field Duplicate Precision (RPD ≤ 20)

Field duplicates not analyzed for total cyanide.

8. Laboratory Duplicate (RPD ≤ 20)

Laboratory duplicates not analyzed for total cyanide.

9. Matrix Spike/Spike Duplicate (MS/MSD) (56-135 %/RPD ≤10)

Pg. 101, MS- 1633133 /MSD- 1633134, project sample 92280019007 (SB-48A (0.5).

The above MS/MSD were within QC limits.

Pg. 101, MS- 1633135 /MSD- 1633136, project sample 92280019029 (SB-20A (5.0).

Compound	MS % Rec	MSD % Rec	RPD	Flag	Reason Code
Cyanide	109	105	12	J	MS-R

10. Raw Calculations

Not required for Level II.

11. Electronic Data Review

Results listed in summary package were compared to EDD – all ok.

DATA VALIDATION RECORD

Method EPA 9014 for Free Cyanide
Project Name and No: RBTC Boone; 6251121001.03.01
Laboratory and SDG: Pace Analytical, 92280019
Data Validation Level: II
Date: 1/20/2016
Reviewer: L. Clem Senior Reviewer: T. Parker 2/5/2016
Samples Reviewed: SB-17A (5.0), SB-17A (10.0), SB-17A (15.0), SB-20A (0.5), SB-20A (5.0), SB-20A (10.0), SB-20B (5.0), SB-20C (5.0), SB-46A (15), SB-46A (20), SB-48A (0.5), SB-48A (5.0), SB-48ZB (0.5), SB-48C (0.5), and SB-48D (0.5).

1. Case Narrative and COC review

Case Narrative (pg. 15 of summary) & the COC (pgs. 107-109 of Summary) was present for samples in this SDG.

2. Sample Collection, Preservation (preserved; Cool to 6 ºC±2 ºC), Holding time (14 days – to extract, analyze within 24 hours of extraction)

Free cyanide unpreserved; cooler temp 4.5ºC per "Sample Condition Upon Receipt checklist pg. 106 of Summary. Samples collected: 12/14/15, 12/15/15; Prepped and analyzed: 12/21/15 and 12/22/15.

3. Instrument Tuning

Not required for Level II validation.

4. Instrument Calibration

Not required for Level II validation.

5. QC Blanks

Method Blanks:

Pg. 102, 12/22/15, MS-1449906, No Detects

Rinse (Equipment) Blanks:

No rinse blanks for this data set.

Field Blanks:

No field blanks for this data set.

Trip Blank:

No Trip Blank for this data set.

6. Laboratory Control Sample (LCS) Results (Lab limits)

Pg. 102 LCS-1449907, LCS are within required QC limits.

7. Internal Standards (50 - 200 %)

Not required for Level II validation.

8. Surrogate Recovery (70-130%)

Surrogates are not required for CN analyses.

9. Field Duplicate Precision (≤ 30 %)

Field duplicates not analyzed for free cyanide.

10. Matrix Spike/Matrix Spike Duplicate (MS/MSD) (90-110 %/RPD ≤ 20 %)

Pg. 102, MS-1449908 /MSD-1449909, project sample 92280019001 (SB-48A (0.5)).
Pg. 102, MS-1449910, project sample 92280019033 (SB-17A (15.0)).

Project matrix MS/MSDs above were within QC limits.

11. Raw Calculations

Not required for Level II validation.

12. Electronic Data Review

Results listed in summary package were compared to EDD – all ok.