



WATER QUALITY MONITORING
REPORT

SECOND SEMI-ANNUAL 2010 SAMPLING EVENT

A-1 Sandrock Construction and Demolition Landfill,
Permit No. 41-17

Guilford County, North Carolina

Submitted To:



A-1 Sandrock Inc.
2091 Bishop Road
Greensboro, NC. 27406 USA

Submitted By: Golder Associates NC, Inc.
5B Oak Branch Drive
Greensboro, NC. 27407 USA

June 2011

1139-606311.500

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NC DENR

Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Golder Associates NC, Inc. on behalf of A-1 Sandrock, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: David Y. Reedy II

Phone: 336-852-4903

E-mail: dreedy@golder.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
A-1 Sandrock C&D Landfill	2091 Bishop Road, Greensboro, NC 27406	41-17	.0500	November 1-2, 2010

Environmental Status: (Check all that apply)

- Initial/Background Monitoring Detection Monitoring Assessment Monitoring Corrective Action

Type of data submitted: (Check all that apply)

- Groundwater monitoring data from monitoring wells Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) _____
 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

Notification attached?

- No. No groundwater or surface water standards were exceeded.
 Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
 Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

David Y. Reedy II, P.G.

Senior Project Hydrogeologist

336-852-4903

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Affix NC Licensed/ Professional Geologist Seal

Signature

Date

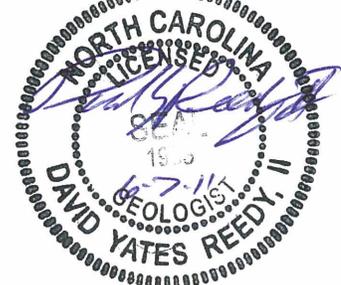
Golder Associates NC, Inc., 5B Oak Branch Drive, Greensboro, NC 27407

Facility Representative Address

C-2862

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009





June 7, 2011

1139-606311.500

Ms. Jaclynne Drummond, Hydrogeologist
NC DENR Division of Waste Management
Solid Waste Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

**RE: WATER QUALITY MONITORING REPORT, SECOND SEMI-ANNUAL 2010 SAMPLING
EVENT
A-1 SANDROCK CONSTRUCTION AND DEMOLITION LANDFILL, PERMIT NO. 41-17
GUILFORD COUNTY, NORTH CAROLINA**

Dear Jackie:

Golder Associates NC, Inc. (Golder) is submitting the enclosed *Water Quality Monitoring Report*, which documents the results of the November 1-2, 2010, compliance monitoring event at the A-1 Sandrock Construction and Demolition Landfill.

A-1 Sandrock Inc. (A-1 Sandrock) currently monitors groundwater at the facility for parameters listed in Title 15A NCAC 13B.0544 of the North Carolina Solid Waste Management Rules (NCSWMR). No NC Appendix I constituents were reported above the Solid Waste Section Limits (SWSLs) and groundwater protection standards in samples from monitoring wells during the November 2010 event.

Two NC Appendix I inorganic constituents, barium and copper, were detected above their respective SWSL in upstream surface water monitoring points during the event. Copper in the sample from upstream point SW-3 was above the SWSL and the applicable surface water standard. Copper was also reported at an estimated concentration below the SWSL, but above the applicable surface water standard in samples from the upstream monitoring points SW-1 and SW-2. Silver was reported at an estimated concentration below the SWSL, but above the applicable surface water standard in samples from the three upstream monitoring points and the downstream monitoring point SW-4. Since copper and silver were detected in upstream monitoring points at concentrations similar to or above downstream monitoring points, no further action is necessary.

Based on the results summarized herein, A-1 Sandrock will continue monitoring this facility in accordance with the requirements of the Detection Monitoring Program for C&D Landfills as outlined in Title 15A NCAC 13B.0544. The next groundwater monitoring event is scheduled for May 2011. If you have any questions, please contact the undersigned at 336-852-4903.

Sincerely,
GOLDER ASSOCIATES NC, INC.

A handwritten signature in blue ink, appearing to read 'Dusty Y. Reedy II'.

David "Dusty" Y. Reedy II, P.G.
Senior Project Hydrogeologist

A handwritten signature in blue ink, appearing to read 'Rachel P. Kirkman'.

Rachel P. Kirkman, P.G.
Associate and Senior Geologist

C: Mike McFeeley, General Manager, A-1 Sandrock Inc., 2091 Bishop Road, Greensboro, NC, 27406. 336-855-8195.

Charles Hiner, P.E., Associate and Senior Consultant, 5B Oak Branch Drive, Greensboro, NC, 27407. 336-852-4903.

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Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Table of Contents

COVER LETTER

1.0	INTRODUCTION.....	1
1.1	Site Description and Background.....	1
1.2	Compliance Monitoring History	1
1.3	Hydrogeologic Setting	2
2.0	FIELD PROGRAM, MONITORING RESULTS, AND DISCUSSION	3
2.1	Visual Inspection Program	3
2.2	Well Network and Groundwater Elevation Measurements	3
2.3	November 2010 Groundwater and Surface Water Monitoring Event	4
2.4	Laboratory Analysis Program.....	4
2.5	November 2010 Sampling Results	4
3.0	LABORATORY AND FIELD QA/QC	5
4.0	DATA EVALUATION.....	5
4.1	November 2010 Groundwater and Surface Water Quality Standard Comparisons	5
5.0	CONCLUSIONS.....	6
6.0	REFERENCES.....	6

Tables

Table 1	Summary of Historical Groundwater Elevation Data in Monitoring Wells
Table 2	Summary of Estimated Horizontal Flow Velocities
Table 3	Summary of Well Construction Information
Table 4	Summary of Detected Constituents in Groundwater
Table 5	Summary of Detected Constituents in Surface Water

Drawings

Drawing 1	Groundwater Surface Contour Map, November 1, 2010
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Appendices

Appendix A	Groundwater and Surface Water Sampling Logs
Appendix B	November 2010 Groundwater and Surface Water Certificate-of-Analysis, Chain-of-Custody Forms, and Laboratory Data Review

1.0 INTRODUCTION

This report summarizes the monitoring results from November 1-2, 2010, groundwater surface water sampling and analysis event at the A-1 Sandrock Construction & Demolition (C&D) Landfill in Guilford County, North Carolina (NC) in accordance with Title 15A of the North Carolina Administrative Code (NCAC) Subchapter 13B.0544. The A-1 Sandrock C&D Landfill, an active C&D landfill, is owned and operated by A-1 Sandrock Inc. under Permit No. 41-17 issued by the NC Department of Environment and Natural Resources (DENR).

1.1 Site Description and Background

The location of the facility is shown on the inlay on Drawing 1. As presented, the A-1 Sandrock C&D Landfill is located along Bishop Road near Greensboro in Guilford County, NC. The site consists of approximately 75 acres which is permitted as a mine and landfill. Approximately 21.9 acres of the site will be utilized for C&D landfill waste disposal, of which 8.18 acres comprise the Phase 1 waste unit (David Garrett, 2009 Update). The landfill and associated processing facility became operational in April 2009.

One named stream, Hickory Creek, traverses the site from north to south approximately along the western facility boundary. Four unnamed streams enter the site and flow into Hickory Creek.

Topographic surface elevations at the facility range from approximately 722 to 822 feet above mean sea level. Much of the facility consists of mining and landfill operations with some wooded areas. Surrounding property uses include other mining operations and landfills, an asphalt plant, a trucking terminal, a MSW transfer station, and other businesses (David Garrett, 2009 Update). Some wooded properties also surround the site.

1.2 Compliance Monitoring History

Groundwater monitoring at the facility was initiated in October 2009 after approval of the Groundwater Monitoring Plan by the DENR. Currently the facility's monitoring network is comprised of five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5), which monitor the uppermost aquifer beneath the facility. In addition to the groundwater monitoring points, the facility's monitoring network includes four surface water sampling points. Three of the surface water sampling points are upstream monitoring points: SW-1 is located in the northwest corner of the facility where Hickory Creek enters the property; SW-2 is located along the eastern facility boundary where an unnamed tributary of Hickory Creek enters the property; and SW-3 is located near the southernmost portion of the facility where another unnamed tributary of Hickory Creek enters the property. Downstream monitoring point SW-4 is located near the southwest corner of the facility where Hickory Creek exits the site. These points are sampled in conjunction with the groundwater monitoring wells in accordance with the facility's permit.

1.3 Hydrogeologic Setting

Geologically, the facility is located within the Charlotte Belt in the Piedmont Physiographic Province. Bedrock at the facility consists of granite and diorite of early- to mid-Paleozoic age (David Garrett, 2002). A regional-scale diabase dike of Mesozoic age crosses the site. The dike follows the typical north-south lineament and is 30 to 50 feet wide (David Garrett, 2002) and is shown on the NC State Geologic Map (NCGS, 1985).

The uppermost groundwater beneath the facility is present in a shallow, unconfined aquifer comprised of saprolite, partially weathered rock, and granitic bedrock (David Garrett, 2002). Groundwater occurs at depths of approximately 45 feet below grade along the upgradient side of the waste disposal area, and at depths of approximately 30 feet below grade along the perimeter downgradient boundary. Groundwater elevations obtained during the November 2010 monitoring event and summarized in Table 1 were used to prepare a groundwater surface contour map presented as Drawing 1.

Surface water and groundwater at the site generally flows west and northwest and discharges to Hickory Creek within the Randleman Reservoir watershed. Groundwater beneath the site flows in three distinguishable and vertically interconnected hydrogeologic units: saprolite, partially weathered rock, and bedrock.

Based on the November 1, 2010, groundwater surface contour map, the average hydraulic gradient in the shallow aquifer underlying the site, as measured along the conceptual flow paths shown on Drawing 1, was calculated to be approximately 0.044 feet per foot. Groundwater velocities were calculated using a hydraulic conductivity of 6.32E-06 centimeters per second, which is the geometric mean of the hydraulic conductivities from individual well aquifer tests (David Garrett, 2002). The estimated effective porosity of the shallow aquifer is 0.20 (David Garrett, 2002 and Driscoll, 1986).

Using the above values, the estimated rate of groundwater flow for the uppermost aquifer beneath the facility was calculated using the following modified Darcy equation:

$$V_{gw} = Ki/n_e$$

where V_{gw} = average linear velocity (feet per year), K = hydraulic conductivity (feet per year), i = horizontal hydraulic gradient, and n_e = effective porosity.

The average estimated linear groundwater flow velocity under the waste management unit is approximately 1.44 feet per year, which is consistent with previous estimates (Table 2). The range of groundwater flow is expected to vary depending on the hydrogeologic unit in which it occurs. The linear velocity equation above makes the simplified assumptions of a homogeneous and isotropic aquifer. Therefore, this equation represents a likely average value for the uppermost aquifer and does not account

for heterogeneous and/or anisotropic conditions that may be present in the uppermost aquifer at the facility.

2.0 FIELD PROGRAM, MONITORING RESULTS, AND DISCUSSION

Field activities conducted for the November 2010 sampling event are discussed in the following sections.

2.1 Visual Inspection Program

In order to ensure that a potential release is detected at the earliest possible time, the visual inspection program is used by the sampling crew at the A-1 Sandrock C&D Landfill. This program includes physical indicators such as potential water table mounding beneath the waste management unit, physical examination of any stresses in biological communities, visible signs of leachate migration (i.e., leachate seeps), unexplained changes in soil characteristics, and any other change to the environment due to the waste management unit. During the November 2010 compliance monitoring event, no physical indicators of a potential release were observed in the vicinity of the waste management area.

2.2 Well Network and Groundwater Elevation Measurements

The approved network of groundwater monitoring wells at the facility consists of wells MW-1, MW-2, MW-3, MW-4, and MW-5. Monitoring well construction information is summarized on Table 3 and the well locations are shown on Drawing 1. The well locations were selected to yield groundwater samples representative of the conditions in the uppermost aquifer underlying the facility and to monitor for potential releases from the landfill unit. Three upstream (SW-1, SW-2, and SW-3) and one downstream (SW-4) surface water monitoring points are also monitored.

Monitoring well MW-1 is the facility's background well and is located hydraulically upgradient of the waste disposal area. Monitoring wells MW-2, MW-3, MW-4, and MW-5 are located downgradient of the waste disposal area and represent the facility's downgradient compliance wells.

Depth to water measurements were recorded to the nearest 0.01 foot prior to initiating groundwater purging and sampling activities. The respective groundwater level elevations for this event are presented in Table 1. The historical water level data are also shown on this table.

As presented, the data indicate that the hydraulic head level in the uppermost aquifer beneath the facility is fairly consistent, with temporal variation from the long-term average limited to approximately 3 feet (plus or minus). As expected, the range in fluctuation appears to be greater in the upgradient well MW-1, as this well is located in a groundwater recharge area. The range in fluctuation in compliance wells MW-2, MW-3, MW-4, and MW-5, which are located near groundwater discharge areas, is less, presumably due to the stabilizing effect of the hydraulic discharge boundary.

2.3 November 2010 Groundwater and Surface Water Monitoring Event

On November 1-2, 2010, A-1 Sandrock personnel purged and sampled monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5, and sampled surface water monitoring points SW-1, SW-2, SW-3, and SW-4. Each monitoring well was purged and sampled using disposable bailers. Measurements of temperature, pH, and specific conductivity were recorded at the onset of purging, at each purge volume, and at the time of sampling. Unless the well was purged dry, three purge volumes were removed from each well before sampling.

Prior to sampling, the laboratory-supplied sample containers were prepared. Each sample container was labeled with the sample identification number, sampling personnel, date and time of sample collection, project name and number, and requested laboratory analyses. The required groundwater samples were collected directly from the bailers in the labeled, laboratory-supplied, pre-preserved sample containers. After collection, the samples were placed in a cooler on ice, under chain-of-custody control.

The surface water samples were collected directly from the stream flow, by lowering the sample containers into the stream flow with the opening facing away from the current flow, taking care to prevent the over flow of the sample containers and to minimize sample-induced turbidity. Measurements of pH, specific conductivity, temperature, and turbidity were recorded during the collection of the surface water samples.

After collection, the samples were placed in a cooler on ice, under chain-of-custody control. Copies of the sampling logs are presented in Appendix A. Included in each log is a description of the sampling location and equipment, sampling method, field observations, and field parameter measurements.

2.4 Laboratory Analysis Program

The November 2010 groundwater and surface water samples were shipped to SGS North America, Inc. (SGS) of Wilmington, NC under chain-of-custody control for analysis. As presented, groundwater and surface water samples at the facility were analyzed for the NC Appendix I plus several indicator parameters listed in Title 15A NCAC 13B.0544. The samples were received by the laboratory on November 3, 2010, in good condition and properly preserved.

2.5 November 2010 Sampling Results

Analytical results for the November 2010 groundwater and surface water samples are summarized in Tables 4 and 5, respectively, with available historical data. The laboratory certificates-of-analysis, chain-of-custody form, and laboratory data review for the sampling event are included in Appendix B.

As presented, no NC Appendix I volatile organic compounds (VOCs) or inorganic constituents were detected at quantifiable concentrations above their respective Solid Waste Section Limits (SWSLs) in samples from downgradient monitoring wells at the facility. Indicator metal iron was detected above the SWSL in the sample from downgradient well MW-4 and indicator metal manganese was detected above

the SWSL in samples from upgradient well MW-1 and downgradient wells MW-4 and MW-5. Indicator parameters alkalinity, chloride, sulfate, and total dissolved solids were detected at quantifiable concentrations in samples from each well, as they have been during previous events.

As presented, two NC Appendix I inorganic constituents were detected in upstream surface water monitoring points during the November 2010 event above SWSLs: barium in the sample from SW-2 and copper in the sample from SW-3. No NC Appendix I inorganic constituents were detected in the sample from downstream monitoring point SW-4. Indicator metals iron and manganese were detected above the SWSL in each surface water sampling point during the November event. No NC Appendix I VOCs were reported at concentrations above the SWSLs in any samples from upstream or downstream monitoring points during the event.

3.0 LABORATORY AND FIELD QA/QC

An equipment blank was collected by the sampling personnel as part of the November 2010 water quality sampling event. In addition to the equipment blank, a laboratory-prepared trip blank accompanied the volatile sample containers for the November 2010 sampling event to and from the laboratory. SGS analyzed the equipment blank for NC Appendix I VOCs and inorganic constituents and the C&D indicator parameters. The trip blank was analyzed for NC Appendix I VOCs.

A review of the laboratory data was performed by Golder personnel (included in Appendix B). Acetone, lead, manganese, thallium, zinc, and alkalinity were detected in the equipment blank during the November 2010 event. Methylene chloride was detected in the trip blank at an estimated concentration during the event. Though laboratory blank results were not reported, the following constituents were detected in one or more laboratory blanks: iron, manganese, vanadium, and zinc. Based on Golder's review, the following concentrations are considered blank-qualified: acetone in samples from MW-1, SW-1, and SW-4; iron in the sample from MW-3; lead in samples from MW-2, MW-3, MW-4, SW-2, SW-3, and SW-4; manganese in samples from MW-2 and MW-3; and zinc in samples from MW-1, MW-2, MW-3, MW-4, MW-5, SW-1, SW-2, SW-3, and SW-4.

4.0 DATA EVALUATION

The results of the data evaluations are presented in the following sections.

4.1 November 2010 Groundwater and Surface Water Quality Standard Comparisons

As presented in Table 4, no NC Appendix I VOCs or inorganic constituents were reported above their respective NC 2L Standards or NC Solid Waste Section Groundwater Protection Standards in samples from monitoring wells during the November 2010 monitoring event. Indicator metal iron was detected above the NC 2L Standard in downgradient well MW-4 and indicator metal manganese was detected above the NC 2L Standard in upgradient well MW-1 and downgradient well MW-5. Iron and manganese

have been detected in upgradient and downgradient wells at similar concentrations during previous events and is considered to be naturally occurring.

As presented on Table 5, one NC Appendix I inorganic constituent, copper, was reported above the SWSL and the applicable surface water standard in the sample from upstream monitoring point SW-3 during the November 2010 event. Copper was also reported at an estimated concentration below the SWSL, but above the applicable surface water standard in samples from the upstream monitoring points SW-1 and SW-2. Since the detections of copper were in samples from upstream monitoring points only, no further action is warranted. Silver was reported at an estimated concentration below the SWSL, but above the applicable surface water standard in samples from the three upstream monitoring points and the downstream monitoring point SW-4. Since concentrations of silver were similar in the upstream and downstream samples, no further action is necessary. No other NC Appendix I constituents were reported above applicable surface water standards during the November 2010 event.

5.0 CONCLUSIONS

No NC Appendix I constituents were reported above the SWSLs and groundwater protection standards in samples from monitoring wells during the November 2010 event. Also, no NC Appendix I constituents were detected above the SWSLs in downstream surface water monitoring points during this event.

Based on the results summarized herein, A-1 Sandrock will continue monitoring this facility in accordance with the requirements of the Detection Monitoring Program for C&D Landfills as outlined in Title 15A NCAC 13B.0544. The next groundwater monitoring event is scheduled for May 2011.

6.0 REFERENCES

David Garrett, P.G., P.E. Engineering and Geology, 2010, Report of April 2010 Semi-Annual Ground Water Monitoring Event, A-1 Sandrock C&D Landfill, Greensboro, Guilford County, North Carolina, Solid Waste Permit No. 41-17. October 6.

David Garrett, P.G., P.E. Engineering and Geology, 2009 Update, Facility and Operations Plan Update, A-1 Sandrock CDLF (Phase 1) and Processing Facility, Guilford County, North Carolina, Solid Waste Permit No. 41-17. February 22.

David Garrett, P.G., P.E. Engineering and Geology, 2002, Site Application Report – Part 1 and 2, Construction and Demolition Debris Landfill (South Side), Guilford County, North Carolina. June.

Driscoll, F.G., 1986, Groundwater and Wells: Johnson Division, St. Paul, Minnesota. Page 67.

Heath, Ralph C., 1982, Basic Ground-Water Hydrology, USGS Water Supply Paper 2220.

NCGS (North Carolina Geologic Survey), 1985. Geologic Map of North Carolina

TABLES

TABLE 1

**Summary of Historical Groundwater Elevation Data in Monitoring Wells
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina**

	Monitoring Wells				
	MW-1	MW-2	MW-3	MW-4	MW-5
TOC Elevation (ft AMSL)	816.05	761.92	731.82	733.17	762.88
Date	Static Groundwater Elevation (ft AMSL)				
11/29/06	790.20	753.51	727.39	728.62	747.92
10/27/09	787.02	752.51	725.90	726.30	747.35
04/09/10	791.96	753.13	727.72	728.35	747.94
11/01/10	787.14	752.57	725.53	726.73	747.30
MEAN	789.08	752.93	726.64	727.50	747.63
MAXIMUM	791.96	753.51	727.72	728.62	747.94
MINIMUM	787.02	752.51	725.53	726.30	747.30

Notes:

1. TOC = top of casing
2. ft AMSL = feet above mean sea level
3. Monitoring well MW-1 is the facility background well.

TABLE 2

**Summary of Estimated Horizontal Flow Velocities
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina**

November 2010							
Gradient Calculation Segment	Flow Direction	Gradient Segment Length (feet)	Gradient Segment Elevations (feet)	Horizontal Gradient (i, feet)	Effective Porosity (n_e)	Hydraulic Conductivity (K, cm/sec)	Velocity (V_{gw} , feet/year)
i_1	NNW	615	780	0.0325	0.20	6.32E-06	1.07
			760				
i_2	NW	1159	780	0.0431	0.20	6.32E-06	1.41
			730				
i_3	WNW	886	780	0.0565	0.20	6.32E-06	1.85
			730				

Notes:

1. Horizontal velocities based on the modified Darcy equation $V_{gw} = Ki/n_e$.
2. The geometric mean of K from individual well aquifer tests was used to calculate the hydraulic conductivity (tests conducted by David Garrett, P.G., P.E. as part of the Site Suitability Report).
3. The effective porosity used in velocity calculations are published empirical values from Driscoll, 1986.
4. cm/sec = centimeters per second

TABLE 3

Summary of Well Construction Information
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina

WELL IDENTIFICATION	DATE INSTALLED	CASING DIAMETER (inches)	WELL ELEVATIONS		TOTAL DEPTH DRILLED		TOP OF BEDROCK		SCREENED INTERVAL				LITHOLOGY OF SCREENED INTERVAL
			GROUND SURFACE (feet AMSL)	TOC (feet AMSL)	DEPTH (feet AMSL)	ELEV. (feet AMSL)	DEPTH (feet BGS)	ELEV. (feet AMSL)	DEPTH (feet BGS)		ELEVATION (feet AMSL)		
									from	to	from	to	
MW-1	08/28/02	2	813.40	816.05	44.0	769.40	19.0	794.40	34.0	44.0	779.40	769.40	Bedrock
MW-2	08/26/02	2	759.90	761.92	33.0	726.90	13.0	746.90	23.0	33.0	736.90	726.90	Bedrock
MW-3	08/25/02	2	729.80	731.82	33.0	696.80	33.0	696.80	18.0	33.0	711.80	696.80	PWR
MW-4	08/25/02	2	731.10	733.17	24.0	707.10	24.0	707.10	9.0	24.0	722.10	707.10	PWR
MW-5	08/27/02	2	761.10	762.88	28.5	732.60	8.0	753.10	18.5	28.5	742.60	732.60	Bedrock

Notes:

1. AMSL = above mean sea level
2. BGS = below ground surface
3. TOC = top of casing
4. PWR = partially weathered rock

TABLE 4

**Summary of Detected Constituents in Groundwater
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina**

Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient	Downgradient					Blanks
				MW-1	MW-2	MW-3	MW-4	MW-5		
Arsenic NC 2L = 10 ug/L	ug/L	11/29/06	10	ND	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	ND	ND	ND	ND	ND	ND	ND
	ug/L	04/09/10	10	ND	ND	ND	ND	ND	ND	ND
	ug/L	11/02/10	10	7.75 J	ND	ND	ND	ND	ND	ND
Barium NC 2L = 700 ug/L	ug/L	11/29/06	100	390	449	860	768	534	ND	ND
	ug/L	10/27/09	100	22.9 B	50.8 B	334 B	163 B	42.4 B	18.8 B*	B*
	ug/L	04/09/10	100	26.9 B	42.8 B	75.2 B	63.8 B	37.6 B	ND	B*
	ug/L	11/02/10	100	64.7 J	59.5 J	46.4 J	49.5 J	52.9 J	ND	ND
Cadmium NC 2L = 2 ug/L	ug/L	11/29/06	1	ND	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	1	ND	ND	ND	ND	ND	ND	ND
	ug/L	04/09/10	1	ND	0.290 B	0.180 B	ND	0.160 B	0.160 J	J
	ug/L	11/02/10	1	ND	ND	ND	ND	ND	ND	ND
Chromium NC 2L = 10 ug/L	ug/L	11/29/06	10	ND	ND	29	11	11	ND	ND
	ug/L	10/27/09	10	ND	ND	28.7 B	24.5 B	ND	4.33 B*	B*
	ug/L	04/09/10	10	3.58 B	2.81 B	6.43 B	4.24 B	2.38 B	2.26 J	J
	ug/L	11/02/10	10	7.88 J	5.92 J	7.88 J	7.36 J	5.71 J	ND	ND
Cobalt SWS GPS = 1 ug/L	ug/L	11/29/06	10	9 J	9 J	30	11	14	ND	ND
	ug/L	10/27/09	10	ND	ND	20.0	9.53 J	1.96 J	ND	ND
	ug/L	04/09/10	10	ND	ND	3.08 J	4.97 J	2.13 J	ND	ND
	ug/L	11/02/10	10	ND	ND	ND	ND	ND	ND	ND
Copper NC 2L = 1000 ug/L	ug/L	11/29/06	10	36	45	60	67	55	ND	ND
	ug/L	10/27/09	10	3.02 B	8.77 B	27.8 B	35.0 B	8.49 B	1.82 B*	B*
	ug/L	04/09/10	10	1.71 J	2.39 J	6.71 J	5.07 J	6.21 J	ND	ND
	ug/L	11/02/10	10	13.7	6.64 J	5.98 J	7.09 J	7.07 J	ND	ND
Lead NC 2L = 15 ug/L	ug/L	11/29/06	10	11	ND	ND	60	ND	ND	ND
	ug/L	10/27/09	10	ND	ND	10.4	ND	ND	ND	ND
	ug/L	04/09/10	10	ND	ND	ND	6.82 J	ND	ND	ND
	ug/L	11/02/10	10	ND	10.1 B	7.96 B	8.01 B	ND	8.48 J	J
Nickel NC 2L = 100 ug/L	ug/L	11/29/06	50	10 J	ND	67	15 J	14 J	ND	ND
	ug/L	10/27/09	50	ND	ND	31.0 J	20.5 J	3.02 J	ND	ND
	ug/L	04/09/10	50	ND	ND	10.6 J	6.29 J	3.11 J	ND	ND
	ug/L	11/02/10	50	7.28 J	2.59 J	6.82 J	3.80 J	5.01 J	ND	ND
Selenium NC 2L = 20 ug/L	ug/L	11/29/06	10	ND	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	ND	ND	6.34 J	ND	ND	ND	ND
	ug/L	04/09/10	10	2.90 J	2.89 J	ND	ND	ND	ND	ND
	ug/L	11/2/2010	10	ND	ND	ND	ND	ND	ND	ND
Silver NC 2L = 20 ug/L	ug/L	11/29/06	10	12	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	1.24 B	3.43 B	ND	0.880 B	1.09 B	2.88 B*	B*
	ug/L	04/09/10	10	ND	1.04 J	ND	ND	ND	ND	ND
	ug/L	11/02/10	10	7.14 J	7.32 J	6.32 J	6.57 J	6.99 J	ND	ND
Thallium SWS GPS = 0.2 ug/L	ug/L	11/29/06	5.5	ND	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	5.5	ND	ND	ND	ND	ND	ND	ND
	ug/L	04/09/10	5.5	ND	ND	ND	ND	ND	ND	ND
	ug/L	11/02/10	5.5	0.300 B	ND	ND	ND	ND	0.270 J	J
Vanadium SWS GPS = 0.3 ug/L	ug/L	11/29/06	25	200	200	135	106	145	ND	ND
	ug/L	10/27/09	25	12.3	8.3 B	61.5	34.8	11.2	1.96 J	J
	ug/L	04/09/10	25	9.79 B	ND	2.44 B	ND	ND	ND	B*
	ug/L	11/02/10	25	ND	ND	ND	ND	ND	1.10 B	B
Zinc NC 2L = 1000 ug/L	ug/L	11/29/06	10	202	236	219	354	501	ND	ND
	ug/L	10/27/09	10	2.00 J	4.41 J	65.7	18.2	2.68 J	ND	ND
	ug/L	04/09/10	10	ND	ND	9.32 J	2.41 J	1.91 J	ND	ND
	ug/L	11/02/10	10	18.8 B	7.99 B	7.30 B	9.02 B	6.58 B	5.99 B	B
Iron NC 2L = 300 ug/L	ug/L	11/29/06	300	ND	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	300	158 B	2360 B	35200 B	17700 B	1250 B	ND	B*
	ug/L	04/09/10	300	71.2 J	94.0 J	2890	6860	162 J	ND	ND
	ug/L	11/02/10	300	81.6 B	ND	48.6 B	2160	245 J	25.2 B	B
Manganese NC 2L = 50 ug/L	ug/L	11/29/06	50	ND	ND	ND	ND	ND	ND	ND
	ug/L	10/27/09	50	13.6 J	63.4	481	767	418	ND	ND
	ug/L	04/09/10	50	7.45 J	13.8 J	187	992	146	0.740 J	J
	ug/L	11/02/10	50	118	8.31 B	4.37 B	32.5	73.9	4.76 B	B

TABLE 4

Summary of Detected Constituents in Groundwater
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina

Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient	Downgradient					Blanks			
				MW-1	MW-2	MW-3	MW-4	MW-5					
Acetone NC 2L = 6000 ug/L (Verification Sample)	ug/L	11/29/06	100	ND	ND	ND	ND	ND	ND	ND			
	ug/L	10/27/09	100	ND	ND	ND	ND	ND	ND	ND			
	ug/L	04/09/10	100	ND	ND	ND	ND	ND	ND	ND			
	ug/L	05/20/10	100	--	--	--	--	ND	ND	ND			
	ug/L	11/02/10	100	2.40	B	ND	ND	ND	ND	4.26	J		
Chloromethane SWS GPS = 2.6 ug/L (Verification Sample)	ug/L	11/29/06	1	ND	ND	ND	ND	ND	ND	ND			
	ug/L	10/27/09	1	ND	ND	ND	ND	ND	ND	ND			
	ug/L	04/09/10	1	ND	1.28	B	ND	1.16	B	ND	0.460	J	
	ug/L	05/20/10	1	--	--	--	--	ND	ND	ND			
	ug/L	11/02/10	1	ND	ND	ND	ND	ND	ND	ND			
Methylene chloride NC 2L = 5 ug/L (Verification Sample)	ug/L	11/29/06	1	ND	ND	ND	ND	ND	ND	ND			
	ug/L	10/27/09	1	0.200	B	ND	ND	ND	ND	1.20			
	ug/L	04/09/10	1	ND	ND	ND	ND	ND	ND	6.30			
	ug/L	05/20/10	1	--	--	--	--	ND	ND	2.30			
	ug/L	11/02/10	1	ND	ND	ND	ND	ND	ND	0.500	J		
Toluene NC 2L = 600 ug/L (Verification Sample)	ug/L	11/29/06	1	ND	ND	ND	ND	ND	ND	ND			
	ug/L	10/27/09	1	ND	ND	ND	ND	0.830	J	ND			
	ug/L	04/09/10	1	ND	ND	ND	ND	0.340	J	ND			
	ug/L	05/20/10	1	--	--	--	--	ND	ND	0.120	J		
	ug/L	11/02/10	1	ND	ND	ND	ND	ND	ND	ND			
Chloride NC 2L = 250 mg/L	mg/L	11/29/06	--	--	--	--	--	--	--	--			
	mg/L	10/27/09	--	4.05	3.24	2.61	2.94	7.00	7.00	ND			
	mg/L	04/09/10	--	4.9	B	3.6	B	3.1	B	4.1	B	4.9	
	mg/L	11/02/10	--	5.27	3.23	2.74	3.38	5.96	5.96	ND			
TDS NC 2L = 1000 mg/L	mg/L	11/29/06	--	--	--	--	--	--	--	--			
	mg/L	10/27/09	--	84.0	75.0	84.0	77.0	132	132	ND			
	mg/L	04/09/10	--	176.0	109.0	128.0	101.0	129.0	129.0	10.0			
	mg/L	11/02/10	--	19	23	20	22	169	169	ND			
Sulfate NC 2L = 250 mg/L	mg/L	11/29/06	250	--	--	--	--	--	--	2.25	J		
	mg/L	10/27/09	250	26.7	J	10.5	J	7.43	J	8.35	J	16.1	J
	mg/L	04/09/10	250	33.5	J	12.1	J	6.3	J	12.2	J	39.1	J
	mg/L	11/02/10	250	13.1	J	9.8	J	6.0	J	7.4	J	28.5	J
Alkalinity No Standard	mg/L	11/29/06	--	--	--	--	--	--	--	--			
	mg/L	10/27/09	--	71.4	47.9	52.8	46.9	84.1	84.1	ND			
	mg/L	04/09/10	--	80.0	64.0	60.5	97.5	35.5	35.5	4.5			
	mg/L	11/02/10	--	10.0	B	53.0	59.0	42.8	77.0	2.5			
pH (Field) (Verification Sample)	S.U.	11/29/06	--	6.42	6.20	6.28	6.01	6.27	6.27	--			
	S.U.	10/27/09	--	7.07	7.07	7.06	6.11	6.07	6.07	--			
	S.U.	04/09/10	--	6.55	6.01	6.04	5.70	5.93	5.93	--			
	S.U.	05/20/10	--	--	--	--	--	5.93	5.93	--			
	S.U.	11/02/10	--	5.73	6.01	5.97	5.75	6.00	6.00	--			
Specific Conductance (Field) (Verification Sample)	uS/cm	11/29/06	--	216	125	128	128	218	218	--			
	uS/cm	10/27/09	--	260	140	130	150	260	260	--			
	uS/cm	04/09/10	--	221.0	126.1	131.0	125.3	182.2	182.2	--			
	uS/cm	05/20/10	--	--	--	--	--	179.0	179.0	--			
	uS/cm	11/02/10	--	93.9	124.1	117.7	129.7	232	232	--			
Temperature (Field) (Verification Sample)	°C	11/29/06	--	--	--	--	--	--	--	--			
	°C	10/27/09	--	14.6	14.8	14.2	16.0	16.0	16.0	--			
	°C	04/09/10	--	15.4	12.8	13.8	13.2	14.2	14.2	--			
	°C	05/20/10	--	--	--	--	--	14.2	14.2	--			
	°C	11/02/10	--	15.1	15.9	16.0	15.0	15.9	15.9	--			

TABLE 4

**Summary of Detected Constituents in Groundwater
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina**

Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient	Downgradient					Blanks
				MW-1	MW-2	MW-3	MW-4	MW-5		
Turbidity (Field) (Verification Sample)	NTU	11/29/06	--	>1000	>1000	>1000	>1000	>1000	725	--
	NTU	10/27/09	--	>1000	972	>1000	378	>1000	>1000	--
	NTU	04/09/10	--	7.91	36.98	772.8	>1000	>1000	40.83	--
	NTU	05/20/10	--	--	--	--	--	--	29.34	--
	NTU	11/02/10	--	0.98	148.5	1.13	71.0	71.0	23.7	--

Notes:

1. MW = groundwater monitoring well
2. ug/L = micrograms per liter
3. mg/L = milligrams per liter
4. J = estimated Value
5. B = blank-qualified data
6. S.U. = Standard Units
7. NTU = Nephelometric Turbidity Units
8. uS/cm = microsiemens per centimeter
9. °C = degrees Celsius
10. ND = Not detected at or above the laboratory detection limit
11. Standards = NC 2L Groundwater Standards or North Carolina Solid Waste Section Groundwater Protection Standards
12. --- = no data available
13. Concentrations above the 2L Groundwater Standards or Groundwater Protection Standards have been shaded.
14. Blanks = Field, trip, and laboratory blanks.
15. SWS = Solid Waste Section
16. B* = Laboratory method blank concentrations not provided on the laboratory report, but the report indicates a detection in the laboratory blank by blank-qualifying data (ND next to B* = non-detect in field and/or trip blank).

TABLE 5

**Summary of Detected Constituents in Surface Water
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina**

Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream			Downstream	Blanks
				SW-1	SW-2	SW-3	SW-4	
Antimony No SW Standard	ug/L	11/29/06	6	ND	ND	33	ND	ND
	ug/L	10/27/09	6	ND	ND	ND	ND	ND
	ug/L	04/09/10	6	ND	ND	ND	ND	ND
	ug/L	11/02/10	6	ND	ND	ND	ND	ND
Barium No SW Standard	ug/L	11/29/06	100	82	J 47	J ND	70	J ND
	ug/L	10/27/09	100	57.7	B 81.7	B 61.7	62.6	B 18.8
	ug/L	04/09/10	100	59.8	B 61.6	B 38.5	70.9	B ND
	ug/L	11/02/10	100	88.2	J 110	J 80.9	96.3	J ND
Cadmium SW Standard = 2 ug/L (N)	ug/L	11/29/06	1	ND	ND	ND	ND	ND
	ug/L	10/27/09	1	ND	ND	ND	ND	ND
	ug/L	04/09/10	1	0.170	B 0.170	B 0.180	0.190	B 0.160
	ug/L	11/02/10	1	ND	ND	ND	ND	ND
Chromium SW Standard = 50 ug/L	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	3.33	B ND	ND	ND	4.33
	ug/L	04/09/10	10	5.55	B 3.47	B 3.47	4.46	B 2.26
	ug/L	11/02/10	10	5.71	J 6.53	J 6.43	7.05	J ND
Cobalt No SW Standard	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	ND	ND	4.84	J ND	ND
	ug/L	04/09/10	10	ND	ND	ND	ND	ND
	ug/L	11/02/10	10	ND	ND	2.30	J ND	ND
Copper SW Standard = 7 ug/L (AL)	ug/L	11/29/06	10	ND	ND	42	J ND	ND
	ug/L	10/27/09	10	7.56	B 2.69	B 11.2	3.21	B 1.82
	ug/L	04/09/10	10	5.69	J 7.82	J 53.1	5.67	J ND
	ug/L	11/02/10	10	7.26	J 7.90	J 12.0	6.32	J ND
Lead SW Standard = 25 ug/L (N)	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	ND	ND	ND	ND	ND
	ug/L	04/09/10	10	7.08	J ND	ND	ND	ND
	ug/L	11/02/10	10	7.46	B 7.71	B 8.08	8.48	B ND
Nickel SW Standard = 88 ug/L (N)	ug/L	11/29/06	50	ND	ND	ND	ND	ND
	ug/L	10/27/09	50	4.92	J ND	ND	ND	ND
	ug/L	04/09/10	50	2.60	J 2.98	J 3.91	5.68	J ND
	ug/L	11/02/10	50	3.89	J 4.19	J 3.88	3.77	J ND
Selenium SW Standard = 5 ug/L	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	ND	ND	ND	ND	ND
	ug/L	04/09/10	10	4.67	J ND	ND	ND	ND
	ug/L	11/02/10	10	ND	3.97	J ND	ND	ND
Silver SW Standard = 0.06 ug/L (AL)	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	0.670	B ND	ND	ND	2.88
	ug/L	04/09/10	10	ND	ND	ND	ND	ND
	ug/L	11/02/10	10	6.72	J 6.96	J 6.84	7.14	J ND
Vanadium No SW Standard	ug/L	11/29/06	25	ND	ND	ND	ND	ND
	ug/L	10/27/09	25	9.74	B 4.43	B 3.27	1.96	B ND
	ug/L	04/09/10	25	ND	ND	0.379	B ND	B ND
	ug/L	11/02/10	25	ND	ND	ND	1.10	B ND
Zinc SW Standard = 50 ug/L (AL)	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	17.2	1.40	J 4.66	J 2.20	J ND
	ug/L	04/09/10	10	3.96	J 6.98	J 5.59	8.19	J ND
	ug/L	11/02/10	10	6.85	B 8.55	B 10.2	10.3	B 5.99
Iron SW Standard = 1000 ug/L	ug/L	11/29/06	100	ND	ND	ND	ND	ND
	ug/L	10/27/09	100	2530	B 1040	B 2050	553	B ND
	ug/L	04/09/10	100	1100	1790	512	1060	ND
	ug/L	11/02/10	100	211	623	233	706	25.2
Manganese No SW Standard	ug/L	11/29/06	10	ND	ND	ND	ND	ND
	ug/L	10/27/09	10	97.4	284	422	447	ND
	ug/L	04/09/10	10	664	253	36.8	532	0.74
	ug/L	11/02/10	10	90.5	248	82.8	328	4.76
Acetone SW Standard = 2000 ug/L	ug/L	11/29/06	100	ND	ND	ND	ND	ND
	ug/L	10/27/09	100	2.98	J ND	ND	2.57	J ND
	ug/L	04/09/10	100	ND	ND	ND	ND	ND
	ug/L	11/02/10	100	2.26	B ND	ND	3.17	B 4.26
Chloride SW Standard = 230 mg/L	mg/L	11/29/06	--	--	--	--	--	--
	mg/L	10/27/09	--	22.0	12.2	6.27	18.6	ND
	mg/L	04/09/10	--	19.0	B 8.6	B 4.7	18.3	B 4.9
	mg/L	11/02/10	--	22.5	12.5	6.45	20.3	ND
TDS No SW Standard	mg/L	11/29/06	--	--	--	--	--	--
	mg/L	10/27/09	--	166	241	92.0	181	ND
	mg/L	04/09/10	--	295.0	131.0	95.0	409.0	10
	mg/L	11/02/10	--	230	256	141	231	ND
Sulfate No SW Standard	mg/L	11/29/06	250	--	--	--	--	--
	mg/L	10/27/09	250	9.20	J 11.8	J 8.67	10.2	J ND
	mg/L	04/09/10	250	28.6	J 14.2	J 11.0	26.6	J ND
	mg/L	11/02/10	250	14.1	J 19.3	J 20.3	16.3	J ND

TABLE 5

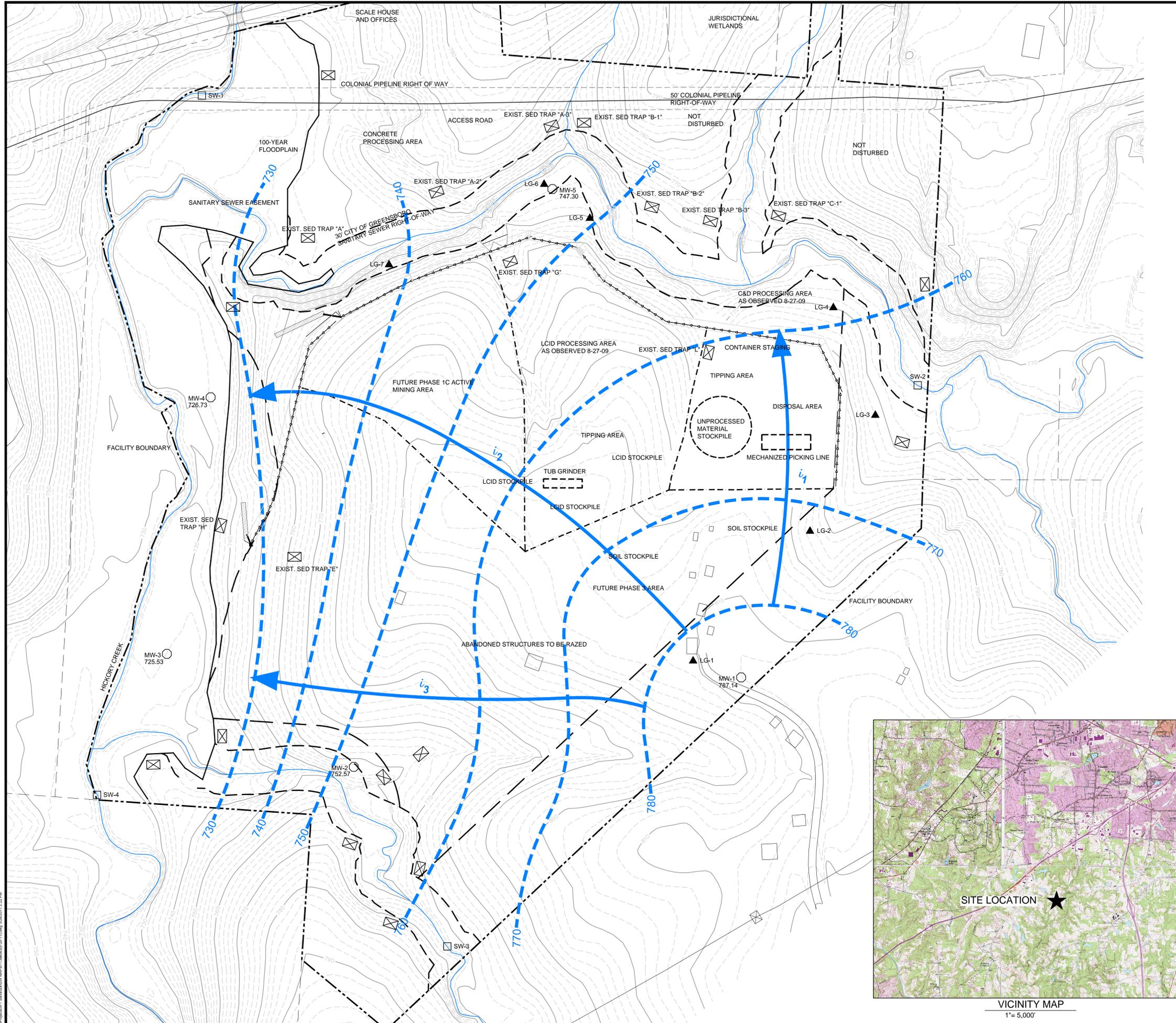
**Summary of Detected Constituents in Surface Water
A-1 Sandrock Construction and Demolition Landfill, Permit No. 41-17
Guilford County, North Carolina**

Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream			Downstream	Blanks
				SW-1	SW-2	SW-3	SW-4	
Alkalinity No SW Standard	mg/L	11/29/06	--	--	--	--	--	--
	mg/L	10/27/09	--	89.9	182	53.8	117	ND
	mg/L	04/09/10	--	187	60.5	33.0	172	4.5
	mg/L	11/02/10	--	145	155	64.5	150	2.5
pH (Field)	S.U.	11/29/06	--	7.14	6.82	6.96	6.96	--
	S.U.	10/27/09	--	7.28	7.04	6.85	7.65	--
	S.U.	04/09/10	--	7.70	6.92	6.61	7.70	--
	S.U.	11/02/10	--	7.52	6.71	6.35	7.10	--
Specific Conductance (Field)	uS/cm	11/29/06	--	335	152	109	280	--
	uS/cm	10/27/09	--	300	430	200	360	--
	uS/cm	04/09/10	--	436.0	167.0	104.3	419.7	--
	uS/cm	11/02/10	--	117.1	279	60.3	273.8	--
Temperature (Field)	°C	11/29/06	--	--	--	--	--	--
	°C	10/27/09	--	14.5	13.8	13.1	15.0	--
	°C	04/09/10	--	17.6	13.3	12.8	16.8	--
	°C	11/02/10	--	12.2	11.3	13.1	13.2	--
Turbidity (Field)	NTU	11/29/06	--	22	15	38	32	--
	NTU	10/27/09	--	2.1	4.5	4.6	4.8	--
	NTU	04/09/10	--	18.63	33.63	23.06	26.99	--
	NTU	11/02/10	--	1.64	1.97	2.79	1.38	--

Notes:

1. SW = surface water monitoring point
2. ug/L = micrograms per liter
3. J = estimated Value
4. B = blank-qualified data
5. S.U. = Standard Units
6. NTU = Nephelometric Turbidity Units
7. uS = microsiemens
8. °C = degrees Celsius
9. ND = Not detected at or above the laboratory detection limit
10. Surface Water Standards for NC Appendix I constituents based on Class C Freshwater Aquatic Life stream classification per 15A NCAC 2B.
11. (AL) = SW Standard is an action level
12. (N) = SW Standard is a narrative standard
13. --- = no data available
14. Shaded values are above their respective NC Surface Water Standards.
15. Blanks = Field, trip and laboratory blanks.
16. SWS = Solid Waste Section
17. B* = Laboratory method blank concentrations not provided on the laboratory report, but the report indicates a detection in the laboratory blank by blank-qualifying data.

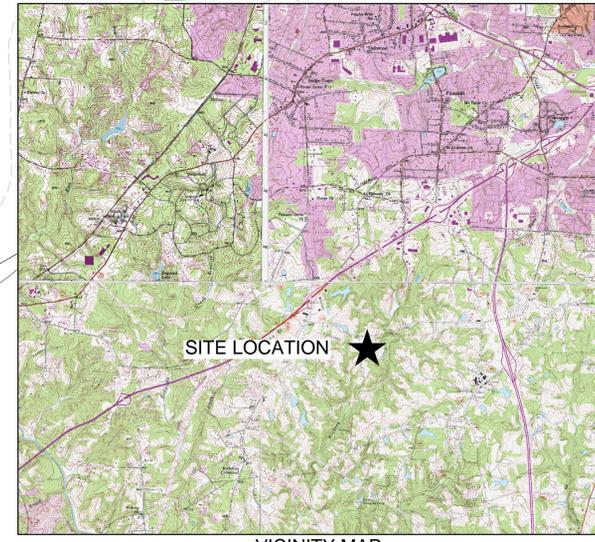
DRAWING



LEGEND

EXISTING 10 FT. CONTOURS	---
EXISTING 2 FT CONTOURS	----
PROPERTY LINE	- - - -
STREAM	====
EXISTING ROAD	====
PROPOSED OR EXISTING LIMITS OF WASTE	- - - -
MONITORING WELL LOCATION, IDENTIFICATION AND GROUNDWATER ELEVATION	● MW-3 725.53
SURFACE WATER MONITORING POINT AND IDENTIFICATION	□ SW-1
SEDIMENT TRAP	⊗
BAR HOLE MONITORING LOCATION AND IDENTIFICATION	▲ LG-1
GROUNDWATER SURFACE CONTOUR	--- 760
GROUNDWATER FLOW SEGMENT USED TO CALCULATE GRADIENT	→ i ₁

- NOTES**
1. TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET
 2. GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET
 3. GROUNDWATER ELEVATIONS MEASURED ON NOVEMBER 1, 2010.
 4. GROUNDWATER CONTOURS ARE BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL GROUNDWATER CONDITIONS.
 5. GROUNDWATER CONTOUR LINES SHOW THE WATER TABLE SHAPE AND ELEVATION. THESE CONTOURS ARE INFERRED LINES FOLLOWING THE GROUNDWATER SURFACE AT A CONSTANT ELEVATION ABOVE SEA LEVEL. THE GROUNDWATER FLOW DIRECTION IS GENERALLY PERPENDICULAR TO THE GROUNDWATER SURFACE CONTOURS, SIMILAR TO THE RELATIONSHIP BETWEEN SURFACE WATER FLOW AND TOPOGRAPHIC CONTOURS.
 6. GUILFORD COUNTY TAX MAP FOR SUMTER TOWNSHIP: ACL-3-185-755S-7, D.B. 4459, PG. 780.
 7. TOPOGRAPHY WITHIN PROPERTY BOUNDARY FROM AERIAL PHOTOGRAPHY DATED 3-27-01, BY SPATIAL DATA. TOPOGRAPHY OUTSIDE PROPERTY BOUNDARY FROM AERIAL PHOTOGRAPHY DATED 1995, BY GUILFORD COUNTY GIS DEPARTMENT.
 8. BOUNDARY INFORMATION FROM BOUNDARY MAP PREPARED BY L. DENNIS LEE, P.A., DATED NOVEMBER 14, 2002.
 9. BASE GRADES SHOWN HERE ARE AS PERMITTED IN FEBRUARY 2004 BY NCDENR DIVISION OF WASTE MANAGEMENT (PERMIT #41-17). AS-BUILT SURVEY FOR PHASE 1A COMPLETED IN DECEMBER 2006 BY DENNIS LEE, RLS.



REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RW
PROJECT						
A-1 SANDROCK C&D LANDFILL GUILFORD COUNTY, NC SOLID WASTE PERMIT #41-17						
TITLE						
GROUNDWATER SURFACE CONTOUR MAP NOVEMBER 1, 2010						
PROJECT No. 11396063.500		FILE No. 11396063-2511		SCALE AS SHOWN REV. -		
DESIGN	DYR	5/17/11				
CADD	LKB	5/17/11				
CHECK	DYR	5/17/11				
REVIEW	RPK	5/17/11				
DWG. 1						



X:\Projects\A1_Sandrock\DWG Map\DWG 11396063-25-11.dwg 5/26/2011 2:22 PM

APPENDIX A
GROUNDWATER AND SURFACE WATER SAMPLING LOGS

Well / Sample ID: MW1

Ground Water Sample Collection Record

A-1 Sandrock, Inc.
Sample Type: GROUNDWATER
Sample Location: LANDFILL
Weather Conditions: CLEAR 60°F

Purge Date: 11/1/10
Sample Date: 11/2/10
Sample Time: 08:25
Collector(s): Mike McFeeley

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
Total Well Depth: 46.65 Casing Diameter: 2"
Top of Casing Elevation (Ft. above MSL): 816.05
Depth to Water (Ft.): 28.91
Groundwater Elevation (Ft. above MSL): 787.14

PURGE CALCULATION: $(46.65 - 28.91)(.163) = 2.9(3) = 8.7 \text{ GAL}$

WELL PURGING DATA:

- a. Purge Method: BAILEY
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ 3 well volumes) 8.7 GAL
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 IN/COND/T°	0340844
HFS	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
09:05	START	14.9°	5.75	93.3	0.84	CLEAR	—
09:12	3	15.0°	5.81	94.0	1.2	CLEAR	—
09:19	6	15.0°	5.79	93.9	6.6	CLEAR	—
09:25	9	15.0°	5.75	94.0	6.31	CLEAR	—
08:25	@ SAMPLING	15.1°	5.73	93.9	0.98	CLEAR	—

- d. Acceptance criteria pass/ fail

	yes	no	N/A
Has required volume been removed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has required turbidity been reached?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have parameters stabilized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE COLLECTION: Method: BAILEY

Comments:

Signature:

[Handwritten Signature]

Date:

11/2/10

Well / Sample ID: MW2

Ground Water Sample Collection Record

A-1 Sandrock, Inc.	Purge Date: <u>11/1/10</u>
Sample Type: <u>GROUNDWATER</u>	Sample Date: <u>11/2/10</u>
Sample Location: <u>LANDFILL</u>	Sample Time: <u>11:50</u>
Weather Conditions: <u>CLEAR, 65°F</u>	Collector(s): <u>Mike McFeeley</u>

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
 Total Well Depth: 32.68 Casing Diameter: 2"
 Top of Casing Elevation (Ft. above MSL): 761.92
 Depth to Water (Ft.): 9.35
 Groundwater Elevation (Ft. above MSL): 752.57

PURGE CALCULATION: $(32.68 - 9.35) \times (1.63) = 3.8(3) = 11.4 \text{ GALLONS}$

WELL PURGING DATA:

- Purge Method: BAILEY
- Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ 3 well volumes) 11.4 GALLONS
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters 10%
- Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/TUR	0360844
HFS	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
11:55	START	16.1°	6.01	123	3.53	CLEAR	—
12:07	4	15.9°	6.04	124.2	78	CLOUDY	—
12:17	8	15.9°	6.05	124.1	101.7	CLOUDY	—
12:26	12	15.9°	6.04	123.9	172.3	CLOUDY	—
11:50	@ SAMPLING	15.9°	6.01	124.1	148.5	CLEAR	—

- d. Acceptance criteria pass/ fail
- | | | |
|--|--------------------------|--------------------------|
| yes | no | N/A |
| Has required volume been removed? <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Has required turbidity been reached? <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have parameters stabilized? <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SAMPLE COLLECTION: Method: BAILEY

Comments: _____

Signature: [Signature] Date: 11/2/10

Well / Sample ID: MW3

Ground Water Sample Collection Record

A-1 Sandrock, Inc.
Sample Type: GROUND WATER
Sample Location: LANDELL
Weather Conditions: CLEAR, 65°F
Purge Date: 11/1/10
Sample Date: 11/2/10
Sample Time: 10:15
Collector(s): Mike McFeeley

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
Total Well Depth: 33.0 Casing Diameter: 2"
Top of Casing Elevation (Ft. above MSL): 731.82
Depth to Water (Ft.): 6.29
Groundwater Elevation (Ft. above MSL): 725.53

PURGE CALCULATION: $(33.0 - 6.29) \times (1.63) = 4.4(3) = 13.2 \text{ GAL}$

WELL PURGING DATA:

- a. Purge Method: BAILEY
b. Acceptance Criteria defined (from workplan)
• Min. Required Purge Volume (@ 3 well volumes) 13.2 GAL
• Max. Allowable Turbidity _____ NTUs
• Stabilization of parameters 10%
c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/T°	0320844
HFS	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
10:45	START	16.3°C	5.95	117.1	0.89	CLEAR	—
10:55	5	16.1°C	5.98	118.1	273	ORANGE	—
11:07	10	16.1°C	5.97	117.8	>1000	ORANGE	—
11:15	15	15.9°C	5.97	117.8	>1000	ORANGE	—
10:15	@ SAMPLING	16.0°C	5.97	117.7	1.13	CLEAR	—

- d. Acceptance criteria pass/ fail
- | | | | |
|--------------------------------------|---|-----------------------------|------------------------------|
| Has required volume been removed? | yes <input checked="" type="checkbox"/> | no <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Has required turbidity been reached? | yes <input checked="" type="checkbox"/> | no <input type="checkbox"/> | N/A <input type="checkbox"/> |
| Have parameters stabilized? | yes <input checked="" type="checkbox"/> | no <input type="checkbox"/> | N/A <input type="checkbox"/> |

SAMPLE COLLECTION: Method: BAILEY

Comments: _____

Signature: [Signature] Date: 11/2/10

Well / Sample ID: MW4

Ground Water Sample Collection Record

A-1 Sandrock, Inc.	Purge Date: <u>11/1/10</u>
Sample Type: <u>GROUNDWATER</u>	Sample Date: <u>11/2/10</u>
Sample Location: <u>LANDFILL</u>	Sample Time: <u>09:00</u>
Weather Conditions: <u>CLEAR, 65°F</u>	Collector(s): <u>Mike McFeeley</u>

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
 Total Well Depth: 25.65 Casing Diameter: 2"
 Top of Casing Elevation (Ft. above MSL): 733.17
 Depth to Water (Ft.): 6.44
 Groundwater Elevation (Ft. above MSL): 726.73

PURGE CALCULATION: $(25.65 - 6.44) \times 0.163 = 3.1 (3) = 9.3 \text{ GAL}$

WELL PURGING DATA:

- a. Purge Method: BAILEY
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ 3 well volumes) 9.3 GAL
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
VSI	VSI 63 PH/COND/TD	0320844
HFS	MICROTP1 TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
09:45	START	15.3°C	5.75	125	63	CLEAR	—
09:55	3.5	15.1°C	5.74	131.2	>1000	ORANGE	—
10:04	7.0	15.0°C	5.75	131.6	>1000	ORANGE	—
10:06	7.5	— WELL PURGED			DRY		
09:00 @ Sampling		15.0°C	5.75	129.7	71	CLEAR	—

- d. Acceptance criteria pass/ fail

yes	no	N/A
Has required volume been removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Has required turbidity been reached?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Have parameters stabilized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SAMPLE COLLECTION: Method: BAILEY

Comments: WELL PURGED DRY @ 7.5 GALLONS

Signature: [Signature] Date: 11/2/10

Well / Sample ID: MWS

Ground Water Sample Collection Record

A-1 Sandrock, Inc.	Purge Date: <u>11/1/10</u>
Sample Type: <u>GROUNDWATER</u>	Sample Date: <u>11/2/10</u>
Sample Location: <u>LANDFILL</u>	Sample Time: <u>08:00</u>
Weather Conditions: <u>CLEAR, 60°F</u>	Collector(s): <u>Mike McFeeley</u>

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
 Total Well Depth: 31.20 Casing Diameter: 2"
 Top of Casing Elevation (Ft. above MSL): 762.88
 Depth to Water (Ft.): 15.58
 Groundwater Elevation (Ft. above MSL): 747.30

PURGE CALCULATION: $(31.20 - 15.58) \times (.163) = 2.5(3) = 7.5 \text{ GAL}$

WELL PURGING DATA:

- a. Purge Method: BAILER
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ 3 well volumes) 7.5 GAL
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/T	0320844
HES	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
08:30	START	16.1°C	6.01	302.5	22.1	CLEAR	—
08:36	2.5	15.9°C	6.00	235	273	CLOUDY	—
08:42	5.0	15.9°C	6.03	233	>1000	TSOUND	—
08:48	7.5	15.9°C	6.00	233.1	>1000	TSOUND	—
08:00	@ SAMPLING	15.9°C	6.00	232	23.7	CLEAR	—

- d. Acceptance criteria pass/ fail

	yes	no	N/A
Has required volume been removed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has required turbidity been reached?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have parameters stabilized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE COLLECTION: Method: BAILER

Comments: _____

Signature: [Signature] Date: 11/2/10

Well / Sample ID: SW1

Ground Water Sample Collection Record

A-1 Sandrock, Inc.	Purge Date: _____
Sample Type: <u>SURFACE WATER</u>	Sample Date: <u>11/2/10</u>
Sample Location: <u>ADJACENT TO BISHOP ROAD</u>	Sample Time: _____
Weather Conditions: <u>CLEAR, 60°F</u>	Collector(s): <u>Mike McFeeley</u>

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER

Total Well Depth: _____ Casing Diameter: 2"

Top of Casing Elevation (Ft. above MSL): POINT

Depth to Water (Ft.): STREAM

Groundwater Elevation (Ft. above MSL): _____

PURGE CALCULATION: _____

WELL PURGING DATA:

- a. Purge Method: _____
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ _____ well volumes) _____
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters _____ 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/T°	03L0844
HFS	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
<u>14:00</u>	<u>—</u>	<u>12.2</u>	<u>7.52</u>	<u>117.1</u>	<u>1.64</u>	<u>CLEAR</u>	<u>—</u>

- d. Acceptance criteria pass/ fail

	yes	no	N/A
Has required volume been removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has required turbidity been reached?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have parameters stabilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE COLLECTION: Method: SAMPLED DIRECTLY INTO BOTTLES

Comments: SAMPLED FROM HICKORY CREEK, SOUTH OF CROSSING UNDER BISHOP ROAD

Signature: [Signature] Date: 11/2/10

Well / Sample ID: SW2

Ground Water Sample Collection Record

A-1 Sandrock, Inc. Purge Date: _____
 Sample Type: SURFACE WATER Sample Date: 11/2/10
 Sample Location: NORTH TRIBUTARY, HICKORY CREEK Sample Time: 11:30
 Weather Conditions: CLEAR, 60°F Collector(s): Mike McFeeley

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
 Total Well Depth: _____ Casing Diameter: 2" POINT
 Top of Casing Elevation (Ft. above MSL): _____
 Depth to Water (Ft.): 5 FEET AM
 Groundwater Elevation (Ft. above MSL): _____

PURGE CALCULATION: _____

WELL PURGING DATA:

- a. Purge Method: _____
 b. Acceptance Criteria defined (from workplan)
 • Min. Required Purge Volume (@ _____ well volumes) _____
 • Max. Allowable Turbidity _____ NTUs
 • Stabilization of parameters _____ 10%
 c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 PH/COND/TD	0360844
HFB	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
11:30	_____	11.3°C	6.71	279	1.97	CLEAR	_____

- d. Acceptance criteria pass/ fail yes ~~no~~ N/A
- Has required volume been removed?
- Has required turbidity been reached?
- Have parameters stabilized?

SAMPLE COLLECTION: Method: SAMPLED DIRECTLY INTO BOTTLES

Comments: SAMPLED FROM TRIBUTARY OF HICKORY CREEK ALONG EASTERN FACILITY BOUNDARY

Signature: [Signature] Date: 11/2/10

Well / Sample ID: SW2

Ground Water Sample Collection Record

A-1 Sandrock, Inc. Purge Date: _____
 Sample Type: SURFACE WATER Sample Date: 11/2/10
 Sample Location: NORTH TRIBUTARY, HICKORY CREEK Sample Time: 11:30
 Weather Conditions: CLEAR, 60°F Collector(s): Mike McFeeley

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
 Total Well Depth: _____ Casing Diameter: 2" POINT
 Top of Casing Elevation (Ft. above MSL): _____
 Depth to Water (Ft.): STEAM
 Groundwater Elevation (Ft. above MSL): _____

PURGE CALCULATION: _____

WELL PURGING DATA:

- a. Purge Method: _____
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ ___ well volumes) _____
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters _____ 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/T°	0360844
HFB	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
11:30	—	11.3°C	6.71	279	1.97	CLEAR	—

- d. Acceptance criteria pass/ fail

	yes	no	N/A
Has required volume been removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has required turbidity been reached?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have parameters stabilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE COLLECTION: Method: SAMPLED DIRECTLY INTO BOTTLES

Comments: SAMPLED FROM TRIBUTARY OF HICKORY CREEK, ALONG EASTERN FACILITY BOUNDARY

Signature: [Signature] Date: 11/2/10

Well / Sample ID: SW3

Ground Water Sample Collection Record

A-1 Sandrock, Inc.	Purge Date: _____
Sample Type: <u>SURFACE WATER</u>	Sample Date: <u>11/2/10</u>
Sample Location: <u>SOUTH TRIBUTARY OF HICKORY CREEK</u>	Sample Time: <u>13:20</u>
Weather Conditions: <u>CLEAR, 60°F</u>	Collector(s): <u>Mike McFeeley</u>

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER
Total Well Depth: _____ Casing Diameter: 2
Top of Casing Elevation (Ft. above MSL): _____
Depth to Water (Ft.): 5
Groundwater Elevation (Ft. above MSL): _____

PURGE CALCULATION: _____

WELL PURGING DATA:

- a. Purge Method: _____
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ _____ well volumes) _____
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters _____ 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/T	03L0844
HES	MICRO TPI TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
13:20	—	13.1°C	6.35	60.3	2-79	CLEAR	—

- d. Acceptance criteria pass/ fail

Has required volume been removed?	yes <input type="checkbox"/>	no <input type="checkbox"/>	N/A <input type="checkbox"/>
Has required turbidity been reached?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have parameters stabilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE COLLECTION: Method: SAMPLED DIRECTLY INTO BOTTLES

Comments: SAMPLED FROM TRIBUTARY OF HICKORY CREEK NEAR SOUTHERN FACILITY BOUNDARY

Signature: [Signature] Date: 11/2/10

Well / Sample ID: SW4

Ground Water Sample Collection Record

A-1 Sandrock, Inc.	Purge Date: _____
Sample Type: <u>SURFACE WATER</u>	Sample Date: <u>11/2/10</u>
Sample Location: <u>HICKORY CREEK</u>	Sample Time: <u>10:35</u>
Weather Conditions: <u>CLEAR, 65°F</u>	Collector(s): <u>Mike McFeeley</u>

WATER LEVEL DATA: (measured from Top of Casing) WELL PIEZOMETER

Total Well Depth: _____ Casing Diameter: 2"

Top of Casing Elevation (Ft. above MSL): STREAM POINT

Depth to Water (Ft.): _____

Groundwater Elevation (Ft. above MSL): _____

PURGE CALCULATION: _____

WELL PURGING DATA:

- a. Purge Method: _____
- b. Acceptance Criteria defined (from workplan)
 - Min. Required Purge Volume (@ _____ well volumes) _____
 - Max. Allowable Turbidity _____ NTUs
 - Stabilization of parameters _____ 10%
- c. Field Testing Equipment Used:

Make	Model	Serial Number
YSI	YSI 63 pH/COND/TEMP	0360844
HFS	MICROTRIP TURBIDIMETER	204070

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity	Color	Odor
10:35	@ Sampling	13.2°	7.10	273.8	1.38	CLEAR	—

- d. Acceptance criteria pass/ fail
- | | | | |
|--------------------------------------|--------------------------|-------------------------------------|--------------------------|
| | yes | no | N/A |
| Has required volume been removed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Has required turbidity been reached? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have parameters stabilized? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

SAMPLE COLLECTION: Method: SAMPLED DIRECTLY INTO BOTTLES

Comments: STREAM POINT - HICKORY CREEK, ALONG WESTERN FACILITY BOUNDARY

Signature: [Signature] Date: 11/2/10

APPENDIX B
NOVEMBER 2010 GROUNDWATER AND SURFACE WATER CERTIFICATE-OF-ANALYSIS,
CHAIN-OF-CUSTODY FORMS, AND LABORATORY DATA REVIEWS



Mike McFeeley
A-1 Sandrock, Inc.
2091 Bishop Rd.
Greensboro, NC 27406

Report Number: G1150-4

Client Project: Semi-Annual Monitoring

Dear Mike McFeeley,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Lori Lockamy at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

Michael Ray

Project Manager

11/18/10

Date

bol

Lori Lockamy

List of Reporting Abbreviations
And Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantification Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

UJ = Target analytes with recoveries that are $10\% < \%R < LCL$; # of MEs are allowable and compounds are not detected in the sample.

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block; see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: EB01
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-1A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 8:15
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	4.26	100	2.18	1	11/5/2010	J
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: EB01
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-1A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 8:15
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	33.1	110
Toluene-d8	30	29.2	97
4-Bromofluorobenzene	30	28.7	96

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW1
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-2A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 8:25
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	2.40	100	2.18	1	11/5/2010	J
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-2A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 8:25
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	32.9	110
Toluene-d8	30	26.9	90
4-Bromofluorobenzene	30	29.8	99

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: MW2
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-3A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 11:50
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/5/2010	
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW2
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-3A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 11:50
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	33.3	111
Toluene-d8	30	28.8	96
4-Bromofluorobenzene	30	29.8	100

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW3
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-4A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 10:15
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/5/2010	
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-4A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 10:15
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	33.4	111
Toluene-d8	30	28.1	94
4-Bromofluorobenzene	30	29.7	99

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW4
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-5A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 9:00
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/5/2010	
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW4
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-5A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 9:00
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	34.1	114
Toluene-d8	30	28	93
4-Bromofluorobenzene	30	29.3	98

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW5
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-6B
 Lab Project ID: G1150-4

Analyzed By: BWS
 Date Collected: 11/2/2010 8:00
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/8/2010	
Acetonitrile	BQL	55.0	2.58	1	11/8/2010	
Acrylonitrile	BQL	200	2.93	1	11/8/2010	
Benzene	BQL	1.00	0.0650	1	11/8/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/8/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/8/2010	
Bromoform	BQL	3.00	0.120	1	11/8/2010	
Bromomethane	BQL	10.0	0.133	1	11/8/2010	
2-butanone	BQL	100	0.544	1	11/8/2010	
Carbon disulfide	BQL	100	0.0690	1	11/8/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/8/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/8/2010	
Chloroethane	BQL	10.0	0.106	1	11/8/2010	
Chloroform	BQL	5.00	0.0790	1	11/8/2010	
Chloromethane	BQL	1.00	0.146	1	11/8/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/8/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/8/2010	
Dibromomethane	BQL	10.0	0.113	1	11/8/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/8/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/8/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/8/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/8/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/8/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/8/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/8/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/8/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/8/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/8/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/8/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/8/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/8/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/8/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/8/2010	
2-hexanone	BQL	50.0	0.720	1	11/8/2010	
Iodomethane	BQL	10.0	0.0420	1	11/8/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/8/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/8/2010	
Styrene	BQL	1.00	0.0850	1	11/8/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/8/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/8/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/8/2010	
Toluene	BQL	1.00	0.0760	1	11/8/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/8/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/8/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/8/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: MW5
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-6B
 Lab Project ID: G1150-4

Analyzed By: BWS
 Date Collected: 11/2/2010 8:00
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/8/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/8/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/8/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/8/2010	
Total Xylene	BQL	5.00	0.0650	1	11/8/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	34.7	116
Toluene-d8	30	31.3	104
4-Bromofluorobenzene	30	31.3	104

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVD

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-7A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 14:00
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	2.26	100	2.18	1	11/5/2010	J
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-7A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 14:00
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	34.2	114
Toluene-d8	30	28.4	95
4-Bromofluorobenzene	30	28.8	96

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW2
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-8A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 11:30
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/5/2010	
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW2
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-8A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 11:30
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	33.5	112
Toluene-d8	30	27.9	93
4-Bromofluorobenzene	30	29.8	100

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-9A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 13:20
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/5/2010	
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-9A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 13:20
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	35	117
Toluene-d8	30	28.3	94
4-Bromofluorobenzene	30	29.9	100

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: DVO

SGS North America, Inc.

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW4
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-10A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 10:35
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	3.17	100	2.18	1	11/5/2010	J
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	BQL	1.00	0.0980	1	11/5/2010	
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

**Results for Volatiles
by GCMS 8260 Appendix I**

Client Sample ID: SW4
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-10A
 Lab Project ID: G1150-4

Analyzed By: DVO
 Date Collected: 11/2/2010 10:35
 Date Received: 11/3/2010
 Matrix: Water
 Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Trichlorofluoromethane	BQL	1.00	0.111	1	11/5/2010	
1,2,3-Trichloropropane	BQL	1.00	0.120	1	11/5/2010	
Vinyl acetate	BQL	50.0	0.100	1	11/5/2010	
Vinyl chloride	BQL	1.00	0.149	1	11/5/2010	
Total Xylene	BQL	5.00	0.0650	1	11/5/2010	

	Spike Added	Spike Result	Percent Recovered
1,2-Dichloroethane-d4	30	33.8	113
Toluene-d8	30	28.9	96
4-Bromofluorobenzene	30	29.8	99

Comments:

Flags:

BQL = Below Quantitation Limits.
 J = Detected below the quantitation limit.

Analyst: DVO

Reviewed By: 

SGS North America, Inc.

Results for Volatiles
by GCMS 8260 Appendix I

Client Sample ID: Trip Blanks (Not on COC)
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-11A
Lab Project ID: G1150-4

Analyzed By: DVO
Date Collected: 11/2/2010 0:00
Date Received: 11/3/2010
Matrix: Water
Sample Amount: 5 mL

Compound	Result UG/L	SWSL Limit UG/L	MDL UG/L	Dilution Factor	Date Analyzed	Flag
Acetone	BQL	100	2.18	1	11/5/2010	
Acetonitrile	BQL	55.0	2.58	1	11/5/2010	
Acrylonitrile	BQL	200	2.93	1	11/5/2010	
Benzene	BQL	1.00	0.0650	1	11/5/2010	
Bromochloromethane	BQL	3.00	0.101	1	11/5/2010	
Bromodichloromethane	BQL	1.00	0.0760	1	11/5/2010	
Bromoform	BQL	3.00	0.120	1	11/5/2010	
Bromomethane	BQL	10.0	0.133	1	11/5/2010	
2-butanone	BQL	100	0.544	1	11/5/2010	
Carbon disulfide	BQL	100	0.0690	1	11/5/2010	
Carbon tetrachloride	BQL	1.00	0.0870	1	11/5/2010	
Chlorobenzene	BQL	3.00	0.0820	1	11/5/2010	
Chloroethane	BQL	10.0	0.106	1	11/5/2010	
Chloroform	BQL	5.00	0.0790	1	11/5/2010	
Chloromethane	BQL	1.00	0.146	1	11/5/2010	
Dibromochloromethane	BQL	3.00	0.0900	1	11/5/2010	
1,2-Dibromo-3-chloropropane	BQL	13.0	1.21	1	11/5/2010	
Dibromomethane	BQL	10.0	0.113	1	11/5/2010	
1,2-Dibromoethane	BQL	1.00	0.124	1	11/5/2010	
1,2-Dichlorobenzene	BQL	5.00	0.127	1	11/5/2010	
1,3-Dichlorobenzene	BQL	5.00	0.0810	1	11/5/2010	
1,4-Dichlorobenzene	BQL	5.00	0.0790	1	11/5/2010	
t-1,4-Dichloro-2-butene	BQL	50.5	0.630	1	11/5/2010	
1,1-Dichloroethane	BQL	5.00	0.0740	1	11/5/2010	
1,1-Dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloroethane	BQL	1.00	0.0790	1	11/5/2010	
cis-1,2-Dichloroethene	BQL	5.00	0.0650	1	11/5/2010	
t-1,2-dichloroethene	BQL	5.00	0.0890	1	11/5/2010	
1,2-Dichloropropane	BQL	1.00	0.0940	1	11/5/2010	
1,1-Dichloropropene	BQL	5.00	0.0720	1	11/5/2010	
cis-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
t-1,3-Dichloropropene	BQL	1.00	0.0760	1	11/5/2010	
Ethylbenzene	BQL	1.00	0.0770	1	11/5/2010	
2-hexanone	BQL	50.0	0.720	1	11/5/2010	
Iodomethane	BQL	10.0	0.0420	1	11/5/2010	
Methylene chloride	0.500	1.00	0.0980	1	11/5/2010	J
4-methyl-2-pentanone	BQL	100	0.550	1	11/5/2010	
Styrene	BQL	1.00	0.0850	1	11/5/2010	
1,1,1,2-Tetrachloroethane	BQL	5.00	0.0900	1	11/5/2010	
1,1,2,2-Tetrachloroethane	BQL	3.00	0.115	1	11/5/2010	
Tetrachloroethene	BQL	1.00	0.0690	1	11/5/2010	
Toluene	BQL	1.00	0.0760	1	11/5/2010	
Trichloroethene	BQL	1.00	0.0540	1	11/5/2010	
1,1,1-Trichloroethane	BQL	1.00	0.0540	1	11/5/2010	
1,1,2-Trichloroethane	BQL	1.00	0.182	1	11/5/2010	

Results for Anions
by IC 300.0

Client Sample ID: EB01

Analyzed By: PSW

Client Project ID: Semi-Annual Monitoring

Date Collected: 11/2/2010 08:15

Lab Sample ID: G1150-4-1H

Date Received: 11/3/2010

Lab Project ID: G1150-4

Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	BQL	0.300	0.0107	1	11/3/2010	

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: MW1

Analyzed By: PSW

Client Project ID: Semi-Annual Monitoring

Date Collected: 11/2/2010 08:25

Lab Sample ID: G1150-4-2H

Date Received: 11/3/2010

Lab Project ID: G1150-4

Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	5.27	0.300	0.0107	1	11/4/2010	

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions

by IC 300.0

Client Sample ID: MW2

Analyzed By: PSW

Client Project ID: Semi-Annual Monitoring

Date Collected: 11/2/2010 11:50

Lab Sample ID: G1150-4-3H

Date Received: 11/3/2010

Lab Project ID: G1150-4

Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	3.23	0.300	0.0107	1	11/4/2010	

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: MW3	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 10:15
Lab Sample ID: G1150-4-4H	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	2.74	0.300	0.0107	1	11/4/2010	

Comments:
All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: MW4	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 09:00
Lab Sample ID: G1150-4-5H	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	3.38	0.300	0.0107	1	11/4/2010	

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: MW5	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 08:00
Lab Sample ID: G1150-4-6H	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	5.96	0.300	0.0107	1	11/4/2010	

Comments:
All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: SW1	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 14:00
Lab Sample ID: G1150-4-7H	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	22.5	3.00	0.107	10	11/11/2010	

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: SW2

Analyzed By: PSW

Client Project ID: Semi-Annual Monitoring

Date Collected: 11/2/2010 11:30

Lab Sample ID: G1150-4-8H

Date Received: 11/3/2010

Lab Project ID: G1150-4

Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	12.5	0.300	0.0107	1	11/4/2010	

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Anions
by IC 300.0

Client Sample ID: SW3	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 13:20
Lab Sample ID: G1150-4-9H	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: Water

Analyte	Result mg/L	RL mg/L	MDL mg/L	Dilution Factor	Date Analyzed	Flags
Chloride	6.45	0.300	0.0107	1	11/4/2010	

Comments:

All values corrected for dilution.
BQL = Below quantitation limit.

Reviewed By: 
IC_WA.XLS

Results for Metals

Client Sample ID: EB01	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 08:15
Lab Sample ID: G1150-4-1	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: WATER
ICP InitWt/Vol: 50 mL	Final Vol: 50 mL
Hg InitWt/Vol: 40 mL	Final Vol: 57 mL
Prep Batch: 17689 17694	

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/4/2010	
Barium	BQL	0.100	0.00206	1	MG/L	6010C	11/4/2010	
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	BQL	0.0100	0.00146	1	MG/L	6010C	11/4/2010	
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	BQL	0.0100	0.00129	1	MG/L	6010C	11/4/2010	
Iron	BQL	0.100	0.0200	1	MG/L	6010C	11/4/2010	B
Lead	0.00848	0.0100	0.00679	1	MG/L	6010C	11/4/2010	J
Manganese	0.00476	0.0100	0.000640	1	MG/L	6010C	11/12/2010	JB
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	BQL	0.0500	0.00236	1	MG/L	6010C	11/4/2010	
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/4/2010	
Silver	BQL	0.0100	0.000656	1	MG/L	6010C	11/4/2010	
Thallium	0.000270	0.00550	0.000198	10	MG/L	6020	11/16/2010	J
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00599	0.0100	0.00129	1	MG/L	6010C	11/4/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: MW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-2
 Lab Project ID: G1150-4
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: 40 mL Final Vol: 57 mL
 Prep Batch: 17689 17694

Analyzed By: PSW
 Date Collected: 11/2/2010 08:25
 Date Received: 11/3/2010
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	0.00775	0.0100	0.00491	1	MG/L	6010C	11/12/2010	J
Barium	0.0647	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00788	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.0137	0.0100	0.00129	1	MG/L	6010C	11/12/2010	
Iron	0.0816	0.100	0.0200	1	MG/L	6010C	11/12/2010	JB
Lead	BQL	0.0100	0.00679	1	MG/L	6010C	11/12/2010	
Manganese	0.118	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00728	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00714	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	0.000300	0.00550	0.000198	10	MG/L	6020	11/16/2010	J
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.0188	0.0100	0.00129	1	MG/L	6010C	11/12/2010	B

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: MW2	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 11:50
Lab Sample ID: G1150-4-3	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: WATER
ICP InitWt/Vol: 50 mL	Final Vol: 50 mL
Hg InitWt/Vol: 40 mL	Final Vol: 57 mL
Prep Batch: 17689 17694	

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0595	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00592	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00664	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	BQL	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	0.0101	0.0100	0.00679	1	MG/L	6010C	11/12/2010	
Manganese	0.00831	0.0100	0.000640	1	MG/L	6010C	11/12/2010	JB
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00259	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00732	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00799	0.0100	0.00129	1	MG/L	6010C	11/12/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: MW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-4
 Lab Project ID: G1150-4
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: 40 mL Final Vol: 57 mL
 Prep Batch: 17689 17694

Analyzed By: PSW
 Date Collected: 11/2/2010 10:15
 Date Received: 11/3/2010
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0464	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00788	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00598	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	0.0486	0.100	0.0200	1	MG/L	6010C	11/12/2010	JB
Lead	0.00796	0.0100	0.00679	1	MG/L	6010C	11/12/2010	J
Manganese	0.00437	0.0100	0.000640	1	MG/L	6010C	11/12/2010	JB
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00682	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00632	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00730	0.0100	0.00129	1	MG/L	6010C	11/12/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: MW4	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 09:00
Lab Sample ID: G1150-4-5	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: WATER
ICP InitWt/Vol: 50 mL	Final Vol: 50 mL
Hg InitWt/Vol: 40 mL	Final Vol: 57 mL
Prep Batch: 17689 17694	

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0495	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00736	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00709	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	2.16	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	0.00801	0.0100	0.00679	1	MG/L	6010C	11/12/2010	J
Manganese	0.0325	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00380	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00657	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00902	0.0100	0.00129	1	MG/L	6010C	11/12/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: MW5
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-6
 Lab Project ID: G1150-4
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: 40 mL Final Vol: 57 mL
 Prep Batch: 17689 17694

Analyzed By: PSW
 Date Collected: 11/2/2010 08:00
 Date Received: 11/3/2010
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0529	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00571	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00707	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	0.245	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	BQL	0.0100	0.00679	1	MG/L	6010C	11/12/2010	
Manganese	0.0739	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00501	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00699	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00658	0.0100	0.00129	1	MG/L	6010C	11/12/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: SW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-7
 Lab Project ID: G1150-4
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: 40 mL Final Vol: 57 mL
 Prep Batch: 17689 17694

Analyzed By: PSW
 Date Collected: 11/2/2010 14:00
 Date Received: 11/3/2010
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0882	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00571	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00726	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	0.211	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	0.00746	0.0100	0.00679	1	MG/L	6010C	11/12/2010	J
Manganese	0.0905	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00389	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00672	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00685	0.0100	0.00129	1	MG/L	6010C	11/12/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: SW2
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-8
 Lab Project ID: G1150-4
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: 40 mL Final Vol: 57 mL
 Prep Batch: 17689 17694

Analyzed By: PSW
 Date Collected: 11/2/2010 11:30
 Date Received: 11/3/2010
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.110	0.100	0.00206	1	MG/L	6010C	11/12/2010	
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00653	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00790	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	0.623	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	0.00771	0.0100	0.00679	1	MG/L	6010C	11/12/2010	J
Manganese	0.248	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00419	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	0.00397	0.0100	0.00278	1	MG/L	6010C	11/12/2010	J
Silver	0.00696	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.00855	0.0100	0.00129	1	MG/L	6010C	11/12/2010	JB

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: SW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-9
 Lab Project ID: G1150-4
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: 40 mL Final Vol: 57 mL
 Prep Batch: 17689 17694

Analyzed By: PSW
 Date Collected: 11/2/2010 13:20
 Date Received: 11/3/2010
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0809	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00643	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	0.00230	0.0100	0.00172	1	MG/L	6010C	11/12/2010	J
Copper	0.0120	0.0100	0.00129	1	MG/L	6010C	11/12/2010	
Iron	0.233	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	0.00808	0.0100	0.00679	1	MG/L	6010C	11/12/2010	J
Manganese	0.0828	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00388	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00684	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.0102	0.0100	0.00129	1	MG/L	6010C	11/12/2010	B

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

Reviewed By: 
 METALS.XLS

Results for Metals

Client Sample ID: SW4	Analyzed By: PSW
Client Project ID: Semi-Annual Monitoring	Date Collected: 11/2/2010 10:35
Lab Sample ID: G1150-4-10	Date Received: 11/3/2010
Lab Project ID: G1150-4	Matrix: WATER
ICP InitWt/Vol: 50 mL	Final Vol: 50 mL
Hg InitWt/Vol: 40 mL	Final Vol: 57 mL
Prep Batch: 17689 17694	

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/12/2010	
Barium	0.0963	0.100	0.00206	1	MG/L	6010C	11/12/2010	J
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	0.00705	0.0100	0.00146	1	MG/L	6010C	11/12/2010	J
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	0.00632	0.0100	0.00129	1	MG/L	6010C	11/12/2010	J
Iron	0.706	0.100	0.0200	1	MG/L	6010C	11/12/2010	B
Lead	BQL	0.0100	0.00679	1	MG/L	6010C	11/12/2010	
Manganese	0.328	0.0100	0.000640	1	MG/L	6010C	11/12/2010	B
Mercury	BQL	0.000285	0.000024	1	MG/L	7470	11/4/2010	
Nickel	0.00377	0.0500	0.00236	1	MG/L	6010C	11/12/2010	J
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/12/2010	
Silver	0.00714	0.0100	0.000656	1	MG/L	6010C	11/12/2010	J
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	BQL	0.0250	0.000586	10	MG/L	6020	11/16/2010	B
Zinc	0.0103	0.0100	0.00129	1	MG/L	6010C	11/12/2010	B

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL

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 METALS.XLS

SGS North America, Inc.

Analytical Results

Client Sample ID: EB01
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-1
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 08:15:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	2.5		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	BQL	3	mg/L	2540C	11/05/10	TriTest W
Sulfate	BQL	5	mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
subout

SGS North America, Inc.

Analytical Results

Client Sample ID: MW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-2
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 08:25:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	10.0		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	19		mg/L	2540C	11/05/10	TriTest W
Sulfate	13.1		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
subout

SGS North America, Inc.

Analytical Results

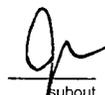
Client Sample ID: MW2
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-3
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 11:50:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	53.0		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	23		mg/L	2540C	11/05/10	TriTest W
Sulfate	9.8		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
subout

SGS North America, Inc.

Analytical Results

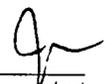
Client Sample ID: MW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-4
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 10:15:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	59.0		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	20		mg/L	2540C	11/05/10	TriTest W
Sulfate	6.0		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
 Subout

SGS North America, Inc.

Analytical Results

Client Sample ID: MW4
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-5
Lab Project ID: G1150-4

Date Collected: 2010-11-02 09:00:00
Date Received: 2010-11-03 10:50:00
Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	42.8		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	22		mg/L	2540C	11/05/10	TriTest W
Sulfate	7.4		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
RL = Report Limit

Reviewed By: 
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SGS North America, Inc.

Analytical Results

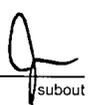
Client Sample ID: MW5
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-6
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 08:00:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	77.0		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	169		mg/L	2540C	11/05/10	TriTest W
Sulfate	28.5		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
 J. Subout

SGS North America, Inc.

Analytical Results

Client Sample ID: SW1
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-7
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 14:00:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	145		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	230		mg/L	2540C	11/05/10	TriTest W
Sulfate	14.1		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
 subout

SGS North America, Inc.

Analytical Results

Client Sample ID: SW2
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-8
Lab Project ID: G1150-4

Date Collected: 2010-11-02 11:30:00
Date Received: 2010-11-03 10:50:00
Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	155		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	256		mg/L	2540C	11/05/10	TriTest W
Sulfate	19.3		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
RL = Report Limit

0.00
0.01
0.02
0.03
0.04

Reviewed By: 
subout

SGS North America, Inc.

Analytical Results

Client Sample ID: SW3
 Client Project ID: Semi-Annual Monitoring
 Lab Sample ID: G1150-4-9
 Lab Project ID: G1150-4

Date Collected: 2010-11-02 13:20:00
 Date Received: 2010-11-03 10:50:00
 Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	64.5		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	141		mg/L	2540C	11/05/10	TriTest W
Sulfate	20.3		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 RL = Report Limit

Reviewed By: 
 J. Subout

SGS North America, Inc.

Analytical Results

Client Sample ID: SW4
Client Project ID: Semi-Annual Monitoring
Lab Sample ID: G1150-4-10
Lab Project ID: G1150-4

Date Collected: 2010-11-02 10:35:00
Date Received: 2010-11-03 10:50:00
Matrix: Water

Analyte	Result	RL	Units	Method	Date Analyzed	Analyst
Alkalinity	150		mg/L	2320B	11/12/10	TriTest W
Total Dissolved Solids	231		mg/L	2540C	11/05/10	TriTest W
Sulfate	16.3		mg/L	Hach 8051	11/12/10	TriTest R

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
RL = Report Limit

Reviewed By: 
subout

TRITEST

Laboratory Report

Lab Location 'R'

NC/WW Cert.#: 067 NC/DW Cert.#: 37731
 6701 Conference Dr, Raleigh, NC 27607
 Ph: (919) 834-4984 Fax: (919) 834-6497

Lab Location 'C'

NC/WW Cert.#: 103 NC/DW Cert.#: 37733
 6300 Ramada Dr, Suite C2, Clemmons, NC 27012
 Ph: (336) 766-7846 Fax: (336) 766-2514

Lab Location 'W'

NC/WW Cert.#: 075 NC/DW Cert.#: 37721
 6624 Gordon Rd, Unit G, Wilmington, NC 28411
 Ph: (910) 763-9793 Fax: (910) 343-9688

Project No.: 01
 Project ID: G1150-4 1-10 ALKAL,SULFA,TDS

Report Date: 11/15/2010
 Date Received: 11/3/2010

--- Prepared for ---

LORI LOCKAMY
SGS NORTH AMERICA
5500 BUSINESS DRIVE
WILMINGTON, NC 28405

Work Order #: 1011-00244
 Cust. Code: SGSNA
 Cust. P.O.#:

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
001	G1150-4-1	11/2/2010	8:15	OT	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	2.5 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	<5 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	<3 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
002	G1150-4-2	11/2/2010	8:25	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	10.0 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	13.1 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	19 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
003	G1150-4-3	11/2/2010	11:50	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	53.0 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	9.8 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	23 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
004	G1150-4-4	11/2/2010	10:15	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	59.0 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	6.0 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	20 mg/L	W	11/5/10	12:00	

Laboratory Report

Work Order #: 1011-00244

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
005	G1150-4-5	11/2/2010	9:00	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	42.8 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	7.4 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	22 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
006	G1150-4-6	11/2/2010	8:00	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	77.0 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	28.5 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	169 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
007	G1150-4-7	11/2/2010	14:00	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	145 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	14.1 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	230 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
008	G1150-4-8	11/2/2010	11:30	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	155 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	19.3 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	256 mg/L	W	11/5/10	12:00	

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
009	G1150-4-9	11/2/2010	13:20	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	64.5 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	20.3 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	141 mg/L	W	11/5/10	12:00	

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Page 3 of 3

NC/WW Cert. #: 067
 NC/DW Cert. #: 37731

Laboratory Report

Work Order #: 1011-00244

No.	Sample ID	Date Sampled	Time Sampled	Matrix	Sample Type	Condition
010	G1150-4-10	11/2/2010	10:35	SW	Grab	4 +/- 2 deg C

Test Performed	Method	Results	Lab Loc	Analyzed Date	Time	Qualifier
Alkalinity	2320B	150 mg/L	W	11/12/10	10:00	
Sulfate	Hach 8051	16.3 mg/L	R	11/12/10	6:50	
Total Dissolved Solids	2540C	231 mg/L	W	11/5/10	12:00	

Reviewed by:

Maryanne Sims

for Tritest, Inc.



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1011-00244

099624

Tri Test

1 CLIENT: SGS Wilmington PHONE NO: 910 350-1903

CONTACT: Lori Lockamy SITE/PWSID#:

PROJECT: G1150-4

REPORTS TO: lori.lockamy@sgs.com FAX NO.:()

INVOICE TO: QUOTE #: P.O. NUMBER:

SGS Reference: G1150-4 PAGE 1 OF 1

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MARK	SAMPLE TYPE	No CONTAINERS	Preservatives Used	Analysis Required	REMARKS
	G1150-4-1	11/2/10	0815	507	C	3		X	
	-2		0825	510				X	
	-3		1150					X	
	-4		1015					X	
	-5		0900					X	
	-6		0800					X	
	-7		1400					X	
	-8		1130					X	
	-9		1320					X	
	-10		1035					X	

Alkalinity 5.16 to TDS

5 Collected/Relinquished By: (1) [Signature] Date 11-3-10 Time 1300 Received By: [Signature]

Relinquished By: (2) _____ Date _____ Time _____ Received By: _____

Relinquished By: (3) _____ Date _____ Time _____ Received By: _____

Relinquished By: (4) _____ Date _____ Time _____ Received By: _____

Shipping Carrier: _____ Shipping Ticket No: _____

Temperature °C: 2.4

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions: _____

Requested Turnaround Time: 11/7/10 Date Needed: _____

RUSH STD



SAMPLE PRESERVATION CHECK-IN SHEET							
WO#:	1011-00244						
Checked in by:	JBA						
Date:	11-3-10	Time:	1300				
Temp:	2.4						
Route:	<input checked="" type="radio"/> CD	<input type="radio"/> TTS	<input type="radio"/> TPU	<input type="radio"/> USM	<input type="radio"/> FEDX	<input type="radio"/> GC	<input type="radio"/> UPS

Sample No.	Analysis Requested	Sample Type	Comp/Grab	Container	Chlorine	Preservative						
						None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
1-10	ALKAL	SW	<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
			<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
			<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
L	Sulfate	L	<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
			<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
			<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
L	TDS	L	<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
			<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER
			<input checked="" type="radio"/> C/G	<input checked="" type="radio"/> P/G	Pos/neg	<input checked="" type="radio"/> None	HCL	H2SO4	HNO3	NaOH	Thio	OTHER

COMMENTS:



**SGS Environmental Services Inc.
CHAIN OF CUSTODY RECORD**

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 - New Jersey
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 - Ohio
 - West Virginia
- www.us.sgs.com

1 CLIENT: A-1 Sandrock, Inc. PHONE NO: 336 301 8411

CONTACT: MIKE MCFEELY SITE/PWSID#: _____

PROJECT: SEMI-ANNUAL MONITORING EMAIL: _____

REPORTS TO: MIKE MCFEELY MIKE@ARC-RECYCLING.COM

INVOICE TO: A-1 SANDROCK, INC. QUOTE #: _____ P.O. #: _____

SGS Reference #: G1150-4 page 1 of 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/MATRIX CODE	# CONTAINERS	ANALYSIS REQUIRED						REMARKS/LOC ID	
						APPENDIX 1 UOAS	APPENDIX 1 METALS MN, FE, HG	ALKALINITY CLORIDE	SULFATE	TDS	Preservatives Used		Analysis Required
✓	E501	11/2/10	08:15	DI	8	3	1	1	1	1	1	1	ERIP MONIT BLANK
✓	MW1	11/2/10	08:25	GW	8	3	1	1	1	1	1	1	
✓	MW2	11/2/10	11:50	GW	8	3	1	1	1	1	1	1	
✓	MW3	11/2/10	10:15	GW	8	3	1	1	1	1	1	1	
✓	MW4	11/2/10	09:00	GW	8	3	1	1	1	1	1	1	
✓	MW5	11/2/10	08:00	GW	8	3	1	1	1	1	1	1	

4

DOD Project? YES NO Special Deliverable Requirements:

Cooler ID _____

Requested Turnaround Time and/or Special Instructions:

Samples Received Cold? (YES NO) NO

Cooler TB INTACT

Temperature °C: 21.0

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

5 Collected/Relinquished By: (1) Mike M. McFeely Date 11/2/10 Time 17:30 Received By:

Relinquished By: (2) A-1 Sandrock, Inc. Date _____ Time _____ Received By:

Relinquished By: (3) Date _____ Time _____ Received By:

Relinquished By: (4) Date 11/3/10 Time 1050 Received For Laboratory By: John J. Lee



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1 CLIENT: A-1 SANDROCK INC

CONTACT: MIKE McFEELEY PHONE NO: 336 301 8411

PROJECT: SEMI-ANNUAL MONITORINGS

REPORTS TO: MIKE McFEELEY MIKE@ARL-RECYCLING.COM

INVOICE TO: A-1 SANDROCK, INC. QUOTE #: _____ P.O. #: _____

SGS Reference #: G1150-4 page 2 of 2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required				REMARKS/ LOC ID
								APPENDIX 1 V04.5	APPENDIX (METALS) MN, Fe, Hg	ALUMINUM	CHLORIDE	
✓	SW1	11/2/10	14:00	SW	8	G	3	1	1	1	1	
✓	SW2	11/2/10	11:30	SW	8	G	3	1	1	1	1	
✓	SW3	11/2/10	13:20	SW	8	G	3	1	1	1	1	
✓	SW4	11/2/10	10:35	SW	8	G	3	1	1	1	1	

5 Collected/Relinquished By: (1) WILL P. M.F. Date 11/2/10 Time 17:30 Received By: _____

Relinquished By: (2) A-1 SANDROCK INC. Date _____ Time _____ Received By: _____

Relinquished By: (3) _____ Date _____ Time _____ Received By: _____

Relinquished By: (4) _____ Date 11/3/10 Time 10:50 Received For Laboratory By: [Signature]

DOD Project? YES NO Cooler ID _____ Special Deliverable Requirements: _____

Requested Turnaround Time and/or Special Instructions: _____

Samples Received Cold? YES NO Cooler TB _____ Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Temperature C: 21.9C

Results for Metals

Client Sample ID: Lab Blank
 Client Project ID:
 Lab Sample ID: pb17689
 Lab Project ID:
 ICP InitWt/Vol: 50 mL Final Vol: 50 mL
 Hg InitWt/Vol: Final Vol:
 Prep Batch: 17689

Analyzed By: PSW
 Date Collected:
 Date Received:
 Matrix: WATER

Metals	Result	SWSL	MDL	DF	Units	Method	Date Analyzed	Flags
Antimony	BQL	0.00600	0.00295	1	MG/L	6010C	11/12/2010	
Arsenic	BQL	0.0100	0.00491	1	MG/L	6010C	11/4/2010	
Barium	BQL	0.100	0.00206	1	MG/L	6010C	11/4/2010	
Beryllium	BQL	0.00100	0.000442	10	MG/L	6020	11/16/2010	
Cadmium	BQL	0.00100	0.000158	10	MG/L	6020	11/16/2010	
Chromium	BQL	0.0100	0.00146	1	MG/L	6010C	11/4/2010	
Cobalt	BQL	0.0100	0.00172	1	MG/L	6010C	11/12/2010	
Copper	BQL	0.0100	0.00129	1	MG/L	6010C	11/4/2010	
Iron	0.0252	0.100	0.0200	1	MG/L	6010C	11/4/2010	J
Lead	BQL	0.0100	0.00679	1	MG/L	6010C	11/4/2010	
Manganese	0.00462	0.0100	0.000640	1	MG/L	6010C	11/12/2010	J
Nickel	BQL	0.0500	0.00236	1	MG/L	6010C	11/4/2010	
Selenium	BQL	0.0100	0.00278	1	MG/L	6010C	11/4/2010	
Silver	BQL	0.0100	0.000656	1	MG/L	6010C	11/4/2010	
Thallium	BQL	0.00550	0.000198	10	MG/L	6020	11/16/2010	
Vanadium	0.00110	0.0250	0.000586	10	MG/L	6020	11/16/2010	J
Zinc	0.00531	0.0100	0.00129	1	MG/L	6010C	11/4/2010	J

Comments

BQL = Below Quantitation Limits
 DF = Dilution Factor
 J = Between MDL and RL
 B= Amount in Prep Blank > MDL



Project Name: A-1 Sandrock C&D Landfill

Project Reference Number: 1139-606311.500

Sampling Event Date: November 1-2, 2010

Review Date: May 18, 2011

Initials: DR

Report #: G1150-4

Person(s) performing the review are to initial each item on this form as acknowledgement of data acceptance, or as acknowledgement of a review issue. In the case of the latter, a brief explanation should follow the applicable item.

Golder Associates Inc. has reviewed the laboratory certificates of analysis, chain-of-custody form, and laboratory provided sample group quality assurance and quality control data for the above referenced sample group to identify potential bias or inaccuracy, in general accordance with the following United States Environmental Protection Agency documents:

- Region III Modifications to Functional Guidelines for Organic Data Review Multi-Media, Multi-Concentration, September 1994;
- Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, April 1993; and
- Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, July 1998.

COMPLIANCE ANALYTE LIST(S) (check all that apply)

NC Closed Facility List (.500 Rules)

NC C & D List (New Rules)

NC Appendix I

NC Appendix I + Detects

NC Appendix II

NC Subtitle D Leachate List

Other: _____

1.0 CHAIN OF CUSTODY (COC) REVIEW

COC was properly signed by all parties.

Correct project name and number are on the form.

Sample receipt condition at laboratory was acceptable.

Each sample and blank submitted for analysis appears in the report.



2.0 SAMPLE HOLDING TIMES

Holding times for extraction and/or analysis were met for each analytical Method (see below for reference).

Review Criteria		
Method	Analytes	Holding Time
SW-846 Method 8260 and 8011	VOCs	14 days
SW-846 Methods 8270, 8080, 8081, 8082, and 8151	SVOCs, PCBs, pesticides and herbicides	7 days for extraction, 40 days from extraction for analysis
SW-846 Methods 6000 and 7000 Series	Metals except mercury	6 months (no temperature requirements)
SW-846 Method 7470	Mercury	28 days
SW-846 Method 376.1	Sulfide	7 days
SW-846 Method 9010	Cyanide	14 days
EPA Method 300	Nitrate/Sulfate	48 hours/28 days
EPA Method 405.1	BOD	48 hours
EPA Method 410.4	COD	28 days
EPA Method 365.4	Phosphorous	28 days

3.0 LABORATORY QUALITY CONTROL REVIEW

Laboratory analyzed at least one internal blank for each method, where applicable.

No internal blanks reported

NA Laboratory blank is interference-free.

Surrogate recoveries are provided for each analytical method, where applicable.

No surrogates reported

NA Surrogate recoveries for each method are within the acceptable limits (i.e., at least 50% of the surrogates were within range).

MS/MSD/LCS data results are provided for each analytical method.

MS/MSD/LCS data not reported

NA MS/MSD/LCS recoveries for each method are within the acceptable limits (i.e., at least 1 of the 3 were within range).



4.0 ANALYTE LISTS/METHODS

- The proper number of constituents are present for each analyte list as identified above (including detects where applicable).

Extra VOCs were reported: acetonitrile, 1,3-dichlorobenzene, 1,1-dichloropropene,

Nitrate was not analyzed

- Proper EPA SW-846 analytical methods were used for analysis.

5.0 DATA REPORTING

- All analytical reporting associated with the event was performed by the contracted lab.

Alkalinity, sulfate, and TDS were farmed out to TriTest.

- Trip, field and/or equipment, and laboratory blank results have all been reported. All detects for blanks are listed below by constituent. All laboratory method blanks, if any, have been 'flagged' with a 'B' where detected in other samples as appropriate and a laboratory narrative was provided. If the sample was flagged by the laboratory and is not within 5X of the concentration in the blank (or 10X for commonly detected laboratory contaminants-acetone, methylene chloride and phthalates), list below with explanation if flags should be removed. If flags need to be added for samples, also list below.

The following constituents were detected in the Equipment Blank:

Acetone @ 4.26 ug/L
Lead @ 8.48 ug/L
Manganese @ 4.76 ug/L
Thallium @ 0.270 ug/L
Zinc @ 5.99 ug/L
Alkalinity @ 2.5 mg/L

The following constituent was detected in the Trip Blank:

Methylene Chloride @ 0.500 ug/L J

Laboratory Blank were not reported.

- It is clear from the laboratory report that samples have or have not been diluted during analysis, and if the samples have been diluted, the result is reported as a multiple of the dilution (e.g., a sample diluted 10x resulting in an analytical detection of 1.0 should be reported as 10). Those that have been diluted are listed below with the dilution factor.



- The report provides the reporting limit for each constituent.
- The results were reported at or below their proper reporting limits (i.e., MDLs with SWSLs reported). Those that are not reported correctly are listed below (by constituent) with the proper reporting limit listed beside them. State if the reporting limit error is due to dilutions.
- No organic constituents were reported above their respective SWSLs, and no inorganic or organic constituents were reported above their respective NC 2L Drinking Water Standards/GWPS in wells, or field/equipment/trip blanks, or above applicable surface water standards in surface water points.

Inorganic/Organic NC2L or GWPS exceedances:

MW-1: Manganese @ 118 ug/L (NC 2L = 50 ug/L)
MW-5: Manganese @ 73.9 ug/L (NC 2L = 50 ug/L)
SW-1: Manganese @ 90.5 ug/L (NC 2L = 50 ug/L)
SW-2: Iron @ 623 ug/L (NC 2L = 300 ug/L)
Manganese @ 248 ug/L (NC 2L = 50 ug/L)
SW-3: Cobalt @ 2.30 ug/L J (GWPS = 1 ug/L)
Manganese @ 82.8 ug/L (NC 2L = 50 ug/L)
SW-4: Iron @ 706 ug/L (NC 2L = 300 ug/L)
Manganese @ 328 ug/L (NC 2L = 50 ug/L)

- No inorganic and organic constituents were detected in a well or surface water point at concentrations outside of their historical range (more than 5X previous concentrations or first-time detections).

Detections outside historical range:

MW-1: Manganese @ 118 ug/L

- Other report issues/Communications with laboratory/etc.:

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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