# Semi-Annual Water Quality Monitoring Report with Corrective Action Update

*Prepared for*

Wayne County Active C&D and Closed MSWLF
Dudley, North Carolina

## August 2013

**Permit Number: 96-01**
**MESCO Project Number: G13016.0**

Submittal Date: February 5, 2014

P.O. Box 97
Garner, NC 27529
License No. C-0281

Municipal Services Garner, NC
Engineering Company, P.A. Boone, NC
Municipal Engineering Services Company, P.A.
Garner and Boone, North Carolina

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No ) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

# Environmental Monitoring Reporting Form

**Notice:** This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

## 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):**

Municipal Engineering Services Co., PA

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

Name: Jonathan Pfohl Phone: (919) 772-5393

E-mail: jpfohl@mesco.com

| Facility name: | Facility Address: | Facility Permit # | NC Landfill Rule: (.0500 or .1600) | Actual sampling dates (e.g., October 20-24, 2006) |
|---|---|---|---|---|
| Wayne County Active C&D and Closed MSWLF | 460-B South Landfill Road Dudley, NC 28333 | 96-01 | .1600 | August 13-15, 2013 |

**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
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☒ Corrective action data (specify) MNA for MW-2,MW-8 & MW-1R
☐ Other(specify)

**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.**

Steven R. Gandy, Ph.D., P.E. Senior Project Manager (919) 772-5393

Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature Date 2/5/14

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA PROFESSIONAL SEAL 031020 ENGINEER STEVEN RAY GANDY

P.O. Box 97, Garner NC 27529

Facility Representative Address

C-0281

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

Revised 6/2009

# TABLE OF CONTENTS

**SECTION**

Introduction ..... Page 1
Background ..... Page 1
Sampling Procedure ..... Page 2
Field Parameter Data ..... Page 2
Laboratory Results ..... Page 2
Quality Control Samples ..... Page 3
Groundwater Samples ..... Page 3
Surface Water Samples ..... Page 3
Corrective Action Update ..... Page 3
Groundwater and Surface Water Characterization ..... Page 3
Findings ..... Page 4
Closing ..... Page 4

**FIGURES**

Topographic Map with Site Location ..... Figure 1
Potentiometric Map of Uppermost Aquifer w/ Detections Above 2L Standards ..... Figure 2
Time-Series Graphs of Select Constituents ..... Figure 3

**TABLES**

Sampling and Analysis Summary ..... Table 1
Detections in Water Samples above Established SWSL, GWP, 2L, or 2B (Appendix I) ..... Table 2
Detections Above MDL (Appendix II Exclusive) ..... Table 3
Hydrologic Properties at Monitoring Well Locations ..... Table 4
Field Observations of Monitoring Locations ..... Table 5
Field Parameter Data Summary ..... Table 6

**APPENDICIES**

Laboratory Analysis Reports and Chains of Custody ..... Appendix A
Field Sampling Data Sheet(s) ..... Appendix B

License No. C-0281

CIVIL/SANITARY/ENVIRONMENTAL ENGINEERS

SOLID WASTE MANAGEMENT

Municipal Services

Engineering Company, P.A.

SITE PLANNING/SUBDIVISIONS

SUBSURFACE UTILITY ENGINEERING (SUE)

February 5, 2014

Ms. Jaclynne Drummond
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
217 West Jones Street
Raleigh, NC 27603

Re: ***Semi-Annual Water Quality Monitoring Report with Corrective Action Update***
Wayne County Active C&D and Closed MSWLF (Dudley)
Permit No. 96-01
MESCO Project No. G13016.0
Event Date(s): August 13-15, 2013

Dear Ms. Drummond:

# Introduction

The Wayne County landfill (Permit #96-01) is located at 460 S Landfill Road (SR 1129), Dudley, Wayne County, North Carolina. A topographic map showing the location of the site is included as **Figure 1.**

The Wayne County unlined closed Municipal Solid Waste Landfill (MSWLF) and active Construction and Demolition (C&D) Landfill located in Dudley NC, currently operating under Permit #96-01 is required to submit semi-annual compliance reports as a condition of 15A NCAC 13B.1630. This report documents the quality of the ground and surface waters during this monitoring event performed on August 13-15, 2013. Laboratory analytical results indicate that benzene continues to be detected in MW-2 in concentrations slightly above the NC Groundwater 2L Standard. Corrective action to remediate volatile organic compounds (VOCs) as detected in groundwater via monitored natural attenuation (MNA) is planned to continue.

As specified within Rule 15A NCAC 13B.1632(i) and the SWS Environmental Monitoring Report Form, this report contains facility background information, sampling procedures, field and laboratory results, corrective action update, groundwater and surface water characterization, and findings. Detections compared to their respective standards tables, a hydrogeologic properties table, a monitoring network field observations table, field parameter data results, mna paramater table, potentiometric map, quality assurance/quality control data, and laboratory analytical data results with chain-of-custody (C-O-C) are included.

# Background

Prior to operating as a C&D landfill the site operated as a Municipal Solid Waste (MSW) unlined sanitary landfill that consisted of two units. The first unit (Unit 1) was closed prior to October 1991 with a 24 inch final soil cover. The second unit (Unit 2) was closed with a low permeability cohesive cap and erosive layer prior to December 31, 1998 in accordance with the T*ransition Plan*. The C&D landfill is operating on top of the Unit 1 MSW landfill. The separate active Subtitle D Lined MSWLF (permit #96-06), located adjacent to the C&D landfill across the unnamed tributary of Edward's Branch, was monitored in conjunction with this site but reported separately.

PO Box 97, Garner, North Carolina 27529 (919) 772-5393 PO Box 349, Boone, NC 28607 (828) 262-1767

Water quality at the landfill has been monitored at least semi-annually since 1991. Current data was compared to data compiled since 1994 in support of this report. Municipal Engineering Services Company, P.A. (MESCO) submitted an *Assessment and Corrective Action* (*ACM*) [DIN8821] report dated August 30, 2007 which was approved by the NC Solid Waste Section (SWS) on November 1, 2007 [DIN3328]. MESCO then developed a *Corrective Action Plan* (*CAP*) [DIN8821] on October 22, 2009 which was approved by the SWS on October 23, 2009 [DIN8822]. Groundwater remediation using monitored natural attenuation (MNA) was initiated on August 6, 2009 and has continued on a semi-annual basis. Following establishment of the two year MNA baseline, MESCO completed a *Corrective Action Evaluation Report* (*CAER*) [DIN 13923] on May 10, 2011. The *CAER* was reviewed and the proposed modifications of MNA parameters and frequency was approved by the SWS [DIN 16967]. The *Water Quality Sampling and Analysis Plan* (SAP) was revised on August 24, 2012 and subsequently approved by the SWS. Background well MW-1 was abandoned and replaced by MW-1R as pre-authorized by SWS [DIN 19050] on June 4, 2013. Groundwater remediation through MNA per the *CAP* is expected to continue until the SWS authorizes a change.

## Sampling Procedure

MESCO performed this sampling event utilizing portable monitoring methodology in accordance with the SAP. The SAP entails continued semi-annual water quality monitoring which includes annual assessment monitoring and annual corrective action monitoring. Keeping with the historical schedule this event consists of assessment monitoring (Appendix II) and corrective action monitoring via select MNA performance parameters. Water samples were collected from monitoring locations designated in the SAP with the exception of SW-2 and SW-3, which were dry. Water quality monitoring was performed on ten wells (MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10 and MW-11), one background well (MW-1R) and one surface water point (SW-1). Quality control measures implemented during this event included quantification of an equipment blank (EB), field blank (FB) and travel blank (TB). A supplemental surface water sample (SW-By_MW-2) was collected from the western tributary of Edward's Branch directly downgradient of MW-2. Data from two surface water locations from the Subtitle D Lined SAP SW-2 (shared) and SW-3 (shared) are presented because this local discharge feature is shared by both permits. Monitoring locations are depicted on the potentiometric map, included as **Figure 2**.

Monitoring location integrity was visually evaluated with deficiencies identified and remedied with documentation provided in **Table 5.** The depth to water in each well was electronically gaged prior to purging to quantify the static water level elevation. Low-flow pumping methodology or bailing was utilized to adequately purge the wells a minimum of three times the volume of standing water in the well or until dry. Surface water samples were dipped from the surface of the creeks at previously designated locations. Samples were then placed into laboratory-prepared, pre-preserved containers. Samples were kept on ice and transported to a NC-certified laboratory under proper C-O-C protocol within the specified hold times for each analysis.

## Field Parameter Data

Stabilized field parameters were recorded during purging which included pH, specific conductance, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), total dissolved solids (TDS), and turbidity. A summary of the field parameter data is presented in **Table 6** and the field sampling data sheet is enclosed in **Appendix B**.

## Laboratory Results

Pace Analytical Laboratory (PACE) of Huntersville and Asheville, NC and Environmental Conservation Laboratories (ENCO) of Cary NC performed the laboratory analysis of groundwater samples for the constituents listed in 40 CFR Appendix II. The surface water samples were analyzed for the parameters listed in 40 CFR Appendix I. Additionally PACE analyzed samples collected from corrective action wells (MW-1, MW-2 and MW-8) for required MNA parameters. A sampling and analysis table summarizing the locations, constituents, and methods is presented on **Table 1**. Laboratory results and C-O-Cs are contained in **Appendix A**.

Water samples were analyzed to the laboratory-established Method Detection Limits (MDL), which are at or below the current Solid Waste Section Limit (SWSL). **Table 2** summarizes Appendix I constituents detected in groundwater and surface water samples that attain or were above the current SWSL, Groundwater Protection Standards (GWP), North Carolina Groundwater Standards (2L) or the applicable Class C North Carolina Surface Water Standards (2B). **Table 3** summarizes Appendix II exclusive constituents (defined in this report as not also listed in Appendix I) detected above the method detection limit (MDL).

### Quality Control Samples

The quality control samples EB, FB and TB contained methylene chloride (DCM) and flagged by PACE as a common laboratory contaminant. The detection of DCM at a lower level in SW-3 is also likely affected by false positives or high bias attributed to the identified laboratory induced artifact contamination.

### Groundwater Samples

MW-11, contained a concentration of total cadmium (3 ug/L) above its respective 2L Standard (2 ug/L).

The VOC benzene (2.0 ug/L) continues to be detected above the 2L Standard (1.0 ug/L) in MW-2. A site map depicting the lone VOC concentration that exceeded the 2L Standard during this event is presented as **Figure 2.**

Targeted Appendix II exclusive analytes were not detected in concentrations above the SWSL or 2L Standards (**Table 3**).

### Surface Water Samples

Constituents were not detected in any surface water sample in concentrations above the SWSL or in exceedance of the established 2B Standards. Supplemental surface water sample SW-By_MW-2 collected at the property line approximately 166 feet downgradient of MW-2 continues to lack Appendix II VOCs.

## Corrective Action Update

Groundwater remediation measures using MNA continues to be implemented at the facility. Semi-annual MNA monitoring of MW-2, MW-8 and background well MW-1 was initiated on August 6, 2009 and was consistently performed for the full suite of SWS recommended parameters for six consecutive semi-annual events. MNA monitoring is planned to be performed annually or bi-annually (constituent specific) during the February event which is consistent with the currently approved SAP. The MNA performance parameters required to be reported during this event is presented in **Table 7.** Interpretation of current MNA data continues to support previous assertions that groundwater geochemical conditions exist that may be considered favorable for continued natural attenuation.

The active Landfill Gas Collection and Control System (GCCS) continues operations. The GCCS extracts LFG for energy production therefore is closely maintained for optimum efficiency which may have a collateral remediation effect on groundwater.

## Groundwater and Surface Water Characterization

A potentiometric map of the uppermost aquifer created from groundwater elevation data collected during this event is included as **Figure 2.** Groundwater flow rates and directions were calculated based on collected data and are included in **Table 4**. Groundwater generally generally flows southwesterly towards Edward's Branch ranging from approximately 2 foot/year (MW-5) to 435 feet/year (MW-3).with an average rate of 79 feet/year The calculated flow directions and gradients are consistent with historical observations. Streams located within the facility boundaries were visually observed at moderate seasonal flow, moderate volume and low turbidity.

## Findings

The laboratory results indicate that the groundwater quality has been compromised in a small portion of the uppermost aquifer south of the landfill, which is monitored by MW-2. The groundwater sample collected from MW-2 contained aromatic VOCs, including benzene slightly above its 2L Standard. However, benzene concentrations remain within its lowest historically identified quartile [ND(<0.21 ug/L) to 5 ug/L] and an increasing trend is not evident (**Figure 3**). The horizontal extent of impact downgradient of MW-2 appears to have not impacted the adjacent local discharge feature as evidenced by the lack of detections in samples SW-By_MW-2 and SW-1.

Groundwater quality monitored by MW-8, located hydraulically upgradient of waste, has improved as evidenced by the lack of contaminant detections in levels exceeding the 2L Standard during the past 6 years. 1,4-dichlorobenzene (lone contaminant of concern detected above 2L in MW-8 since *ACM*) has not been detected at a concentration above its current 2L Standard since August 2007 (**Figure 3**). Samples collected from MW-9 and MW-10, installed to delineate the impact beyond MW-8, continue to lack detections.

The unprecedented concentration of total cadmium detected in MW-11 is attributed to erosion of natural deposits and not anthropogenic. Samples collected from MW-11 have been consistently highly turbid since installation. The sediment entrained in the sample container combined with the acid preservative likely yields artificially elevated total metal concentrations.

Total vanadium was detected in sample MW-11 (11.1 ug/L) which is above the GWP (3.5 ug/L) but below the SWSL ;therefore, "j-qualified". Various reasons indicate that the inconsistent low level total vanadium detections are not anthropogenic. MESCO contends that further investigation of the low level total vanadium detections is unwarranted at this time.

The surface water sample results indicate the streams remain unimpacted.

## Closing

Water quality monitoring will continue at this facility with the next event tentatively scheduled for February 2014. Since MW-2 continues to be the only impacted well a request for modification of Appendix II monitoring is planned to be submitted before August 2014 event. If you have any questions or comments regarding this report, please contact us at (919) 772-5393 or by email at jpfohl@mesco.com or sgandy@mesco.com.

Sincerely,
**MUNICIPAL ENGINEERING SERVICES CO., P.A.**

Jonathan Pfohl
Environmental Specialist

Steven R. Gandy, Ph.D., P.E.
Senior Project Manager

Enclosures

cc: Mr. Tim Rogers
Wayne County

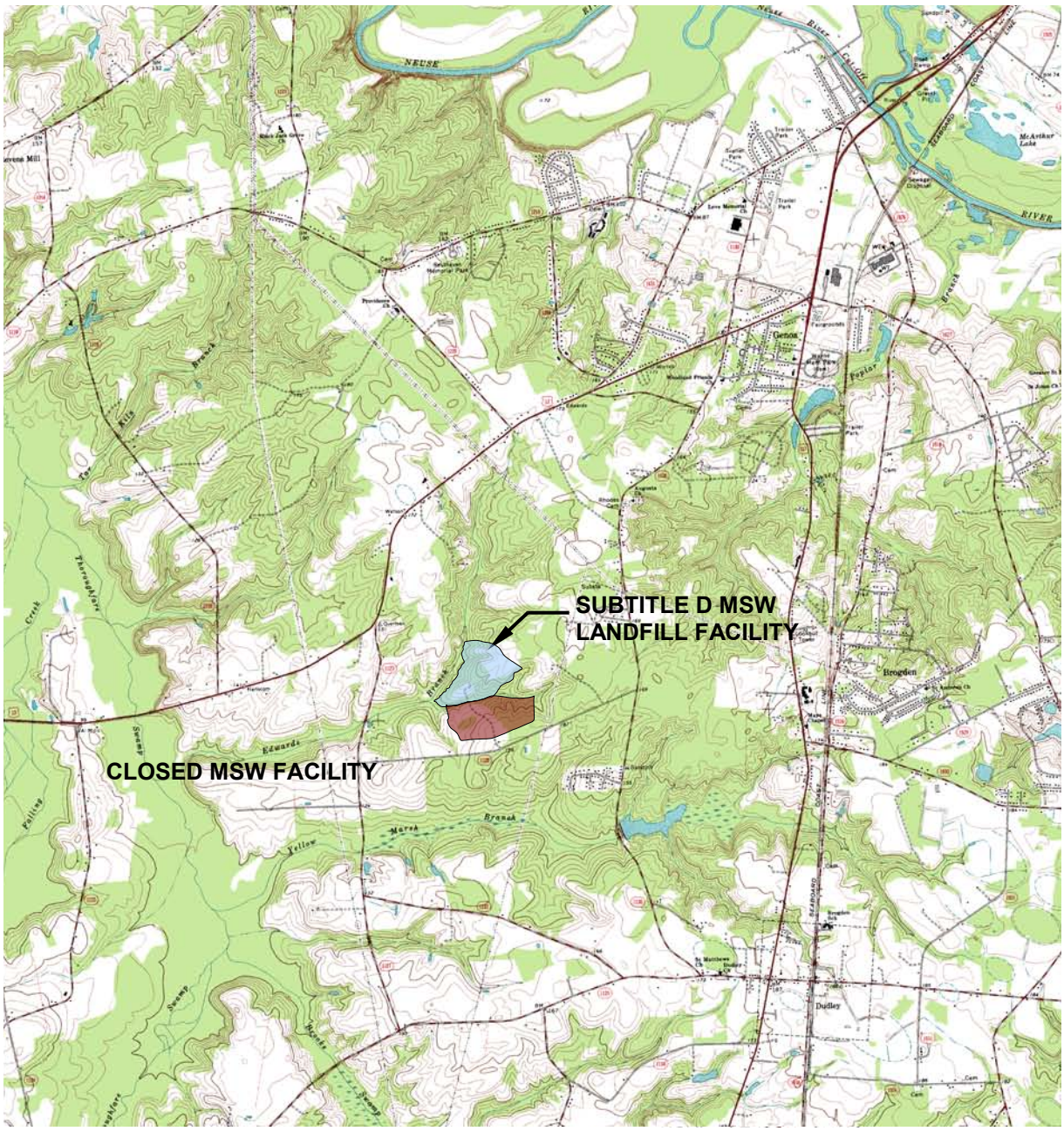
Ms. Christine Ritter
Solid Waste Section

# Figures

# Topographic Map with Site Location

## Wayne County Landfill North Carolina (Dudley)

N



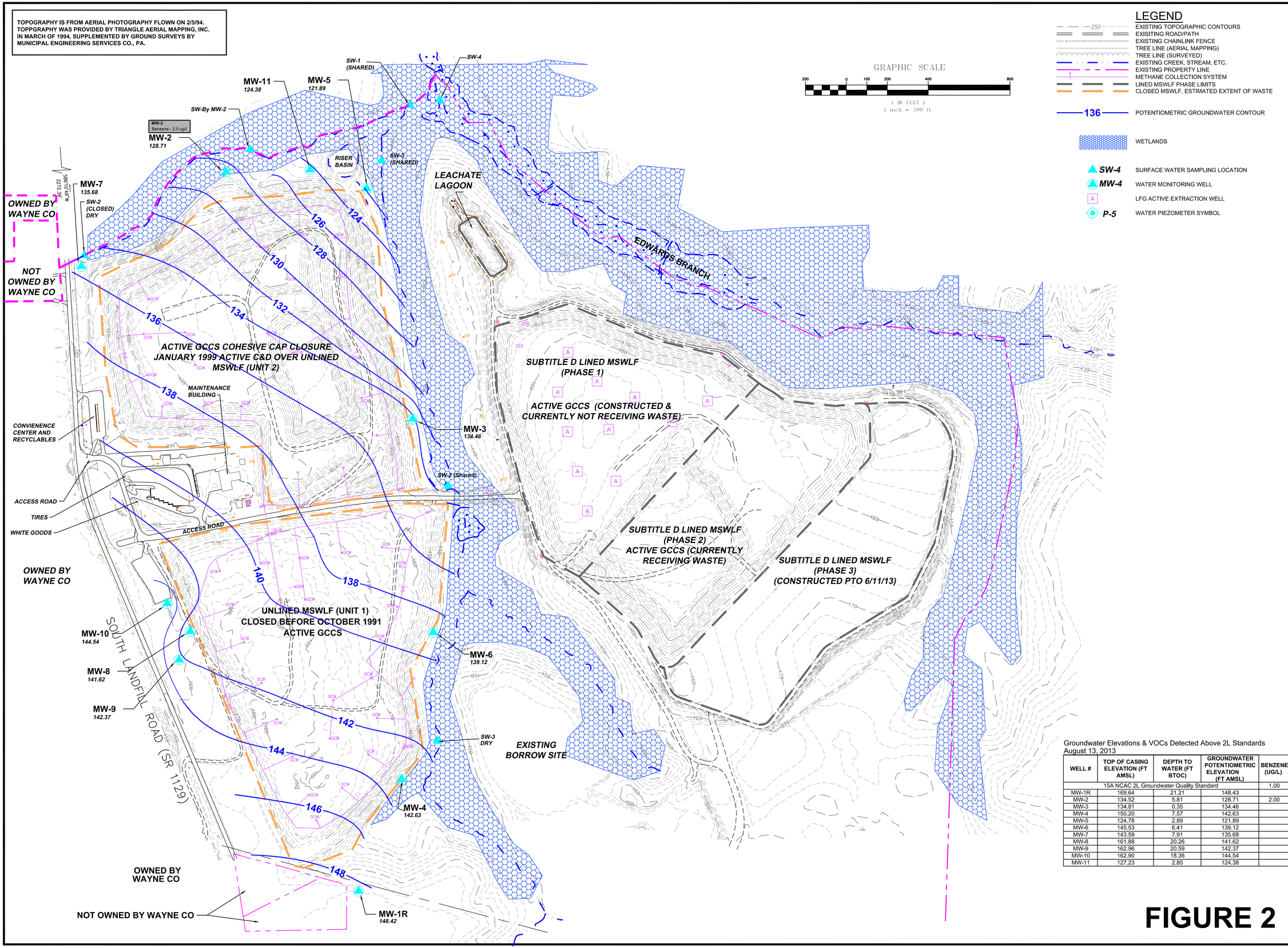

**460 B South Landfill Rd**
**Dudley, NC 28333**
**Lat:35-17-19.1338**
**Long:-78-04-17.2971**
**Northing:561283.19**
**Easting:2277068.62**

Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route

1 0 1 MILE

**FIGURE 1**

TOPOGRAPHY IS FROM AERIAL PHOTOGRAPHY FLOWN ON 2/5/94.
TOPPGRAPHY WAS PROVIDED BY TRIANGLE AERIAL MAPPING, INC.
IN MARCH OF 1994, SUPPLEMENTED BY GROUND SURVEYS BY
MUNICIPAL ENGINEERING SERVICES CO., PA.




Groundwater Elevations & VOCs Detected Above 2L Standards
August 13, 2013

| WELL # | TOP OF CASING ELEVATION (FT AMSL) | DEPTH TO WATER (FT BTOC) | GROUNDWATER POTENTIOMETRIC ELEVATION (FT AMSL) | BENZENE (UG/L) |
|---|---|---|---|---|
| 15A NCAC 2L Groundwater Quality Standard | | | | 1.00 |
| MW-1R | 169.64 | 21.21 | 148.43 | |
| MW-2 | 134.52 | 5.81 | 128.71 | 2.00 |
| MW-3 | 134.81 | 0.35 | 134.46 | |
| MW-4 | 150.20 | 7.57 | 142.63 | |
| MW-5 | 124.78 | 2.89 | 121.89 | |
| MW-6 | 145.53 | 6.41 | 139.12 | |
| MW-7 | 143.59 | 7.91 | 135.68 | |
| MW-8 | 161.88 | 20.26 | 141.62 | |
| MW-9 | 162.96 | 20.59 | 142.37 | |
| MW-10 | 162.90 | 18.36 | 144.54 | |
| MW-11 | 127.23 | 2.85 | 124.38 | |

# FIGURE 2


Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767
LICENSE NUMBER: C-0281

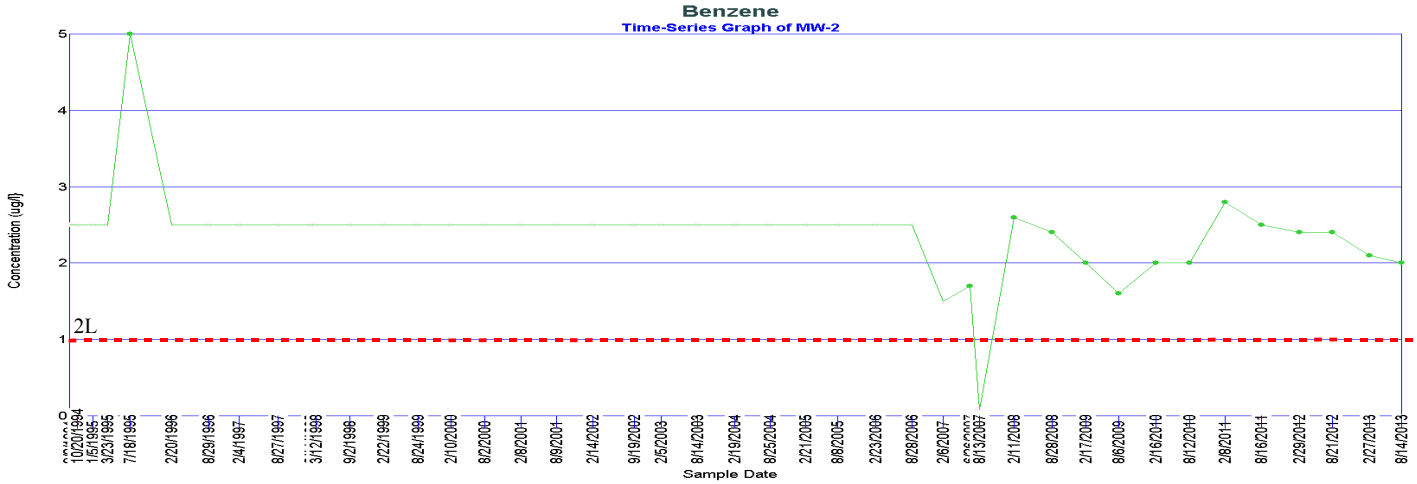

ACTIVE C&D AND CLOSED MSW LANDFILL FACILIITY (DUDLEY)
WAYNE COUNTY NORTH CAROLINA

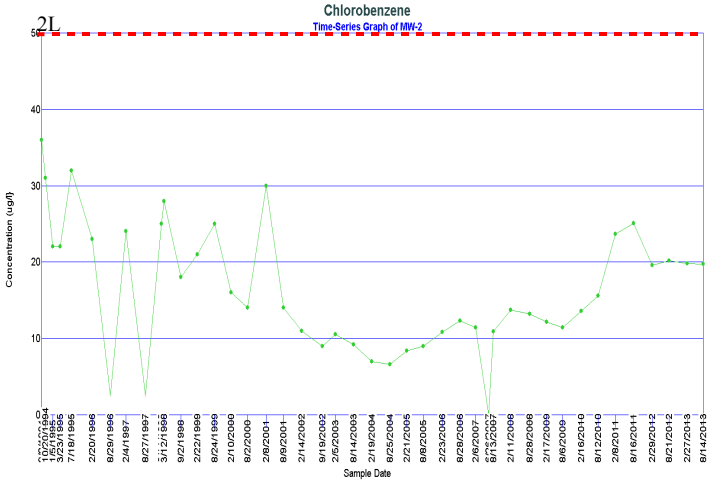
| DATE | BY | REV. | DESCRIPTION |
|---|---|---|---|

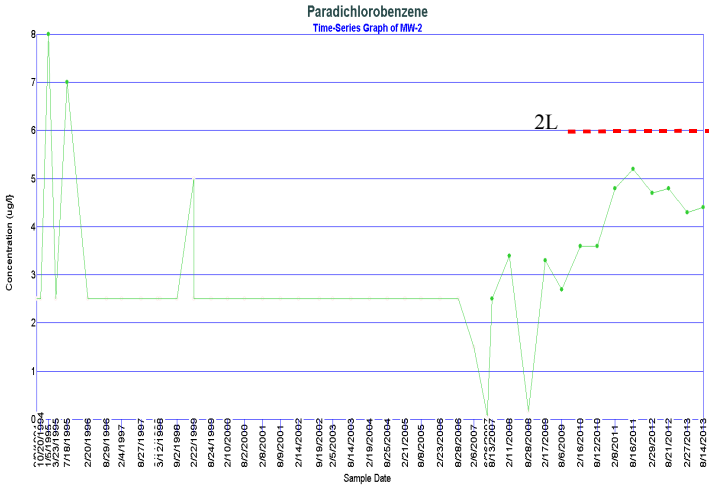
POTENTIOMETRIC MAP OF UPPERMOST AQUIFER w/ DETECTION ABOVE 2L STANDARD

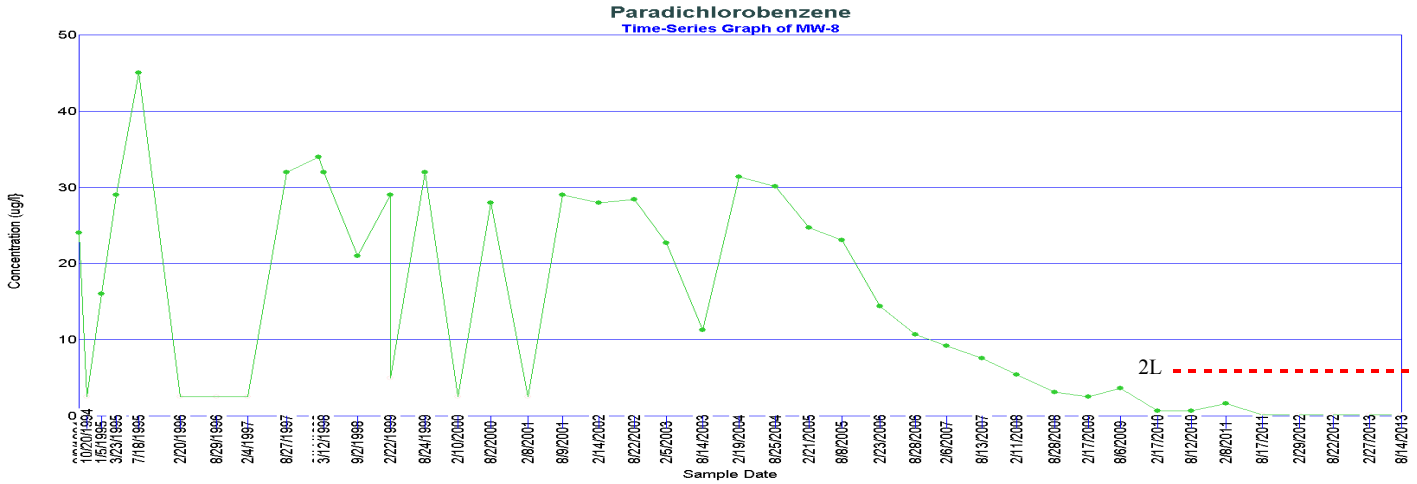
SCALE: SEE BAR SCALE
DATE: 10/17/2013
DRWN. BY: J. PFOHL
CHKD. BY: S. GANDY
PROJECT NUMBER G13016.0
DRAWING NO. FIGURE 2
SHEET NO. 1 OF 1

**Figure 3**
**Time-Series Graphs of Select Constituents**
**August 14, 2013**




Non-Detects Shown at ½ of Method Detection Level.

# Tables

**Table 1**
**Sampling and Analysis Summary**
**August 13-15, 2013**

| | | App. I | | MNA | | | | | | | | | Field Parameter | | | | | | | App. II | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reason Not Sampled | VOCs | Total Metals | Dissolved CO2 | Alkalinity | Sulfate | Sulfide | Chloride | TOC | COD | Iron, total | Nitrate | Dissolved Oxygen (DO) | Oxidation Reduction Potential (ORP) | Temperature | Conductivity | Total Dissolved Solids (TDS) | pH | Turbidity | VOCs | Total Metals | Semivolatile Organics (SVOCs) | Polychlorinated biphenyl (PCB) | Pesticides | Herbicides-Chlorinated | Total Cyanide | Sulfide |
| | | Lab EPA 8260B | Lab EPA 6000/7000 | Field Hach Kit | EPA 310.2 | EPA 300.0 | Lab SM18 4500-S D | EPA 300.0 | SM 5310B | SM 5220D | Lab EPA 8270D | Lab EPA 9014 | Field Meter | Field Meter | Field Meter | Field Meter | Field Meter | Field Meter | Field Meter | Lab EPA 8260B | Lab EPA 6000/7000 | Lab EPA 8270D | Lab EPA 8082A | Lab EPA 8081B | Lab SW8151A | Lab EPA 9014 | Lab SM18 4500-S D |
| MW-1R | | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| MW-2 | | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| MW-3 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-4 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-5 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-6 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-7 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-8 | | | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| MW-9 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-10 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| MW-11 | | | | | | | | | | | | | | x | x | x | x | x | | x | x | x | x | x | x | x | x |
| SW-1 | | x | x | | | | | | | | | | | x | x | x | x | x | | | | | | | | | |
| SW-2 | Dry | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW-2 (shared) | | x | x | | | | | | | | | | | x | x | x | x | x | | | | | | | | | |
| SW-ByMW-2 | | | | | | | | | | | | | | x | x | x | x | x | | x | | | | | | | |
| SW-3 (shared) | | x | x | | | | | | | | | | x | x | x | x | x | x | | | | | | | | | |
| SW-3 | Dry | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EB | | | | | | | | | | | | | | | | | | | | x | x | | | | | x | |
| FB | | | | | | | | | | | | | | | | | | | | x | x | | | | | | |
| TB | | | | | | | | | | | | | | | | | | | | x | | | | | | | |

App I & II = Appendix I & II List from current 40 CFR 258

**Table 2**
**Detections in Water Samples above Established SWSL, GWP, 2L or 2B (Appendix I)**
**August 13-15, 2013**

| Sample ID | Parameter Name [1] | Sample Date | Result | Unit | MDL [2] | SWSL [3] | 2L [4] | 2B [5] | GWP [6] | Exceedance Amount | Preliminary Cause [7] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-2** | **Benzene** | **8/14/13** | **2.0** | **ug/L** | **0.25** | **1** | **1** | | | **1** | **L &/or LFG** |
| MW-2 | Zinc, total | 8/14/13 | 11 | ug/L | 10 | 10 | 1000 | | | | |
| MW-2 | 1,3-Dichlorobenzene | 8/14/13 | 0.36 j | ug/L | 0.24 | 5 | 170 | | | | |
| MW-2 | 1,4-Dichlorobenzene | 8/14/13 | 4.4 | ug/L | 0.33 | 1 | 6 | | | | |
| MW-2 | Barium, total | 8/14/13 | 138 | ug/L | 5 | 100 | 700 | | | | |
| MW-2 | Chlorobenzene | 8/14/13 | 19.7 | ug/L | 0.23 | 3 | 50 | | | | |
| MW-2 | Copper, total | 8/14/13 | 14.8 | ug/L | 5 | 10 | 1000 | | | | |
| MW-2 | Cobalt, total | 8/14/13 | 55.7 | ug/L | 5 | 10 | | | 70 | | |
| MW-4 | Zinc, total | 8/13/13 | 49.9 | ug/L | 10 | 10 | 1000 | | | | |
| MW-4 | Cadmium, total | 8/13/13 | 1.4 | ug/L | 1 | 1 | 2 | | | | |
| MW-4 | Copper, total | 8/13/13 | 28.8 | ug/L | 5 | 10 | 1000 | | | | |
| MW-5 | Zinc, total | 8/13/13 | 13.6 | ug/L | 10 | 10 | 1000 | | | | |
| MW-6 | Thallium, total | 8/13/13 | 6 | ug/L | 5.5 | 5.5 | | | 0.28 | 5.72 | |
| MW-6 | Barium, total | 8/13/13 | 174 | ug/L | 5 | 100 | 700 | | | | |
| MW-10 | Barium, total | 8/13/13 | 276 | ug/L | 5 | 100 | 700 | | | | |
| **MW-11** | **Cadmium, total** | **8/13/13** | **3** | **ug/L** | **1** | **1** | **2** | | | **1** | **Natural** |
| MW-11 | Vanadium, total | 8/13/13 | 11.1 j | ug/L | 5 | 25 | | | 3.5 | 7.6 | |
| MW-11 | Zinc, total | 8/13/13 | 28.3 | ug/L | 10 | 10 | 1000 | | | | |
| MW-11 | Cobalt, total | 8/13/13 | 13.6 | ug/L | 5 | 10 | | | 70 | | |
| MW-11 | Barium, total | 8/13/13 | 584 | ug/L | 5 | 100 | 700 | | | | |
| SW-3 | Methylene Chloride | 8/15/13 | 1 | ug/L | 0.97 | 1 | | NE | | | Artifact |
| TB | Methylene Chloride | 8/15/13 | 2.1 | ug/L | 0.97 | 1 | 4.6 | | | | |
| **EB** | **Methylene Chloride** | **8/15/13** | **6.7** | **ug/L** | **0.97** | **1** | **4.6** | | | **2.1** | **Artifact** |
| **FB** | **Methylene Chloride** | **8/15/13** | **6.6** | **ug/L** | **0.97** | **1** | **4.6** | | | **2** | **Artifact** |

1 Table contains Appendix I constituents detected at or above established SWSL, GWP, 2L, or 2B
[2] MDL = Method Detection Limit
[3] SWSL = Solid Waste Section Reporting Limit
[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard
[5] 2B = North Carolina 15 NCAC 2B Surface Water Quality Standard for this Specific Stream Classification
[6] GWP = Groundwater Protection Standard
[7] Preliminary Cause = Refers to a preliminary analysis of the cause and/or source of a detection over the respective 2L/2B Standard.
A definitive source of the detection was not determined as part of this report.
j =The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable
Artifact = Labatory induced as evidenced by presence in blank(s) and flagged by labatory as “common laboratory contaminant”
Natural= Orignates from erosion of natural deposits
L = Leachate
LFG = Landfill Gas
**BOLD** = Concentration > 2L, or 2B Standard

**Table 3**
**Detections Above MDL (Appendix II Exclusive)**
**August 13-15, 2013**

| Sample ID | Parameter Name [1] | Sample Date | Result | Unit | MDL [2] | SWSL [3] | 2L [4] | 2B [5] | GWP [6] | Exceedance Amount | Preliminary Cause [7] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-2 | Isobutanol | 8/14/13 | 49.5 j | ug/L | 35 | 100 | | | | | |
| MW-2 | Cyanide, total | 8/14/13 | 9.9 j | ug/L | 5 | 10 | 70 | | | | |
| MW-4 | Cyanide, total | 8/13/13 | 5.5 j | ug/L | 5 | 10 | 70 | | | | |
| MW-7 | Cyanide, total | 8/13/13 | 5.5 j | ug/L | 5 | 10 | 70 | | | | |
| MW-8 | Di-n-butylphthalate | 8/14/13 | 1.6 j | ug/L | 1.5 | 10 | 700 | | | | |
| MW-11 | Tin, total | 8/13/13 | 6 j | ug/L | 5 | 100 | NE | | NE | | |
| MW-11 | Cyanide, total | 8/13/13 | 6 j | ug/L | 5 | 10 | 70 | | | | |

1 Table contains detected App II exclusive constituents (Not found on App I list)

[2] MDL = Method Detection Limit

[3] SWSL = Solid Waste Section Reporting Limit

[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

[5] GWP = Groundwater Protection Standard

[7] Preliminary Cause = Refers to a preliminary analysis of the cause and/or source of a detection over the respective 2L/2B Standard.

A definitive source of the detection was not determined as part of this report.

j =The reported value is estimated & between the laboratory MDL & the SWSL, adjusted for actual sample preparation data and moisture content.

**BOLD** = Concentration >2L, or 2B Standard

**Table 4**
**Hydrologic Properties at Monitoring Well Locations**
**August 13, 2013**

| Monitoring Well | Hydraulic Conductivity (cm/sec) | Effective Porosity (%) | Hydraulic Gradient (ft/ft) | Linear Velocity (ft/yr) | Flow Direction | Depth to Groundwater (ft btoc) | Groundwater Potentiometric Elevation (ft amsl) |
|---|---|---|---|---|---|---|---|
| MW-1R | na | 20 | 0.011 | na | N62W | 21.21 | 148.43 |
| MW-2 | 3.00E-04 | 20 | 0.017 | 26 | N62W | 5.81 | 128.71 |
| MW-3 | 6.40E-03 | 20 | 0.013 | 435 | N28W | 0.35 | 134.46 |
| MW-4 | 9.90E-04 | 20 | 0.013 | 65 | N37W | 7.57 | 142.63 |
| MW-5 | 3.10E-05 | 20 | 0.015 | 2 | N36W | 2.89 | 121.89 |
| MW-6 | 1.60E-04 | 20 | 0.012 | 10 | N60W | 6.41 | 139.12 |
| MW-7 | 7.30E-05 | 20 | 0.007 | 3 | N61W | 7.91 | 135.68 |
| MW-8 | 3.40E-04 | 20 | 0.008 | 13 | N15W | 20.26 | 141.62 |
| **Minimum** | 3.10E-05 | 20 | 0.007 | 2 | - | 0.35 | 121.89 |
| **Average** | 1.18E-03 | 20 | 0.012 | 79 | - | 9.05 | 136.57 |
| **Maximum** | 6.40E-03 | 20 | 0.017 | 435 | - | 21.21 | 148.43 |

NOTE: Data for conductivities and effective porosity obtained from GAI Consultants' Water Sampling Report (January, 1995).

Hydrologic Gradient from groundwater elevations recorded on August 13, 2013

Linear Velocity (Q) is defined by modified Darcy's equation:

where $$Q = -\frac{K}{n_e} \cdot \frac{dh}{dl}$$

*K* = hydraulic conductivity

*ne* = effective porosity

*dh* = head difference

*dl* = horizontal distance

**Table 5**
**Field Observations of Monitoring Locations**
**August 13-15, 2013**

| Sample Location | Viable Monitoring Location | Lack of Any Evidence of Tampering | Locked | Hinge/Hasp Operational | Tagged or Labeled | Concrete Surface Pad Effective | Comments |
|---|---|---|---|---|---|---|---|
| MW-1R | Yes | Yes | Yes | Yes | Yes | Yes | Premier Sampling Event |
| MW-2 | Yes | Yes | Yes | Yes | Yes | Yes | |
| MW-3 | Yes | Yes | Yes | Yes | Yes | Yes | Flowing artesian |
| MW-4 | Yes | Yes | Yes | Yes | Yes | Yes | Very fast recharge |
| MW-5 | Yes | Yes | Yes | Yes | Yes | Yes | Flowing artesian |
| MW-6 | Yes | Yes | Yes | Yes | Yes | Yes | |
| MW-7 | Yes | Yes | Yes | Yes | Yes | Yes | |
| MW-8 | Yes | Yes | Yes | Yes | Yes | Yes | |
| MW-9 | Yes | Yes | No | Yes | Yes | Yes | |
| MW-10 | Yes | Yes | Yes | Yes | Yes | Yes | |
| MW-11 | Yes | Yes | Yes | Yes | Yes | Yes | Very turbid |
| SW-1 | Yes | - | - | - | - | - | Shared Downstream of SW-3 |
| SW-2 | No | - | - | - | - | - | Dry-Upstream nearest MW-7 |
| SW-2 | Yes | - | - | - | - | - | Shared nearest lined MW-2 |
| SW-3 | Yes | - | - | - | - | - | Shared downstream of SW-2 |
| SW-3 | No | - | - | - | - | - | Dry-Shared Upstream nearest MW-4 |
| SW-By _MW-2 | Yes | - | - | - | - | - | Not required but supplemental sample |

**Any unusual field conditions, observations, or events:**

First time MW-1R has been sampled. Since MW-1 was not located on Wayne Co. property it was abandoned and replaced by MW-1R.

**Table 6**
**Field Parameter Data Summary**
**August 13-14, 2013**

| Parameter | Depth to Water | Water Elevation | TOC Elevation | Temp. | ORP | DO | pH | Specific Conductance | TDS | Turbidity |
|---|---|---|---|---|---|---|---|---|---|---|
| **Units** | **ft (btoc)** | **ft (amsl)** | **ft (amsl)** | **C** | **mV** | **mg/L** | **SU** | **umhos/cm** | **mg/L** | **NTU or Visual** |
| MW-1R | 21.21 | 148.42 | 169.63 | 17.1 | 420 | 5.2 | 6.08 | 0 | 0 | 209 |
| MW-2 | 5.81 | 128.71 | 134.52 | 20.8 | -32 | 1.1 | 6.83 | 1340 | 670 | 201 |
| MW-3 | 0.35 | 134.46 | 134.81 | 18.1 | 253 | NR | 5.27 | 0 | 0 | Clear |
| MW-4 | 7.57 | 142.63 | 150.20 | 19.1 | 241 | R | 5.91 | 0 | 0 | Clear |
| MW-5 | 2.89 | 121.89 | 124.78 | 19.3 | 224 | NR | 5.47 | 50 | 20 | Slight |
| MW-6 | 6.41 | 139.12 | 145.53 | 21.4 | 133 | NR | 5.26 | 90 | 40 | Clear |
| MW-7 | 7.91 | 135.68 | 143.59 | 20.8 | 388 | NR | 4.88 | 80 | 30 | Clear |
| MW-8 | 20.26 | 141.62 | 161.88 | 17.1 | 362 | 2.4 | 5.04 | 10 | 0 | 89 |
| MW-9 | 20.59 | 142.37 | 162.96 | 18.5 | 355 | NR | 5.10 | 50 | 20 | Moderate |
| MW-10 | 18.36 | 144.54 | 162.90 | 18.7 | 351 | NR | 5.12 | 60 | 20 | Moderate |
| MW-11 | 2.85 | 124.38 | 127.23 | 19.9 | 136 | NR | 5.87 | 1130 | 560 | Very |
| **Minimum** | 0.35 | 121.89 | 124.78 | 17.1 | -32 | 1.1 | 4.88 | 0 | 0 | Clear |
| **Average** | 10.38 | 136.71 | 147.09 | 19.2 | 257 | 2.9 | 5.53 | 255 | 124 | Slight |
| **Maximum** | 21.21 | 148.42 | 169.63 | 21.4 | 420 | 5.2 | 6.83 | 1340 | 670 | Very |
| SW-1 | - | - | - | 19.4 | 227 | NR | 7.12 | 270 | 130 | Clear |
| SW-2 | - | - | - | 22.4 | 106 | NR | 6.28 | 90 | 40 | Clear |
| SW-ByMW-2 | - | - | - | 23.1 | 221 | 6.1 | 6.89 | 70 | 30 | Clear |
| SW-3 | - | - | - | 22.8 | 203 | 6.2 | 6.98 | 50 | 30 | Clear |
| **Minimum** | - | - | - | 19.4 | 106 | 6.1 | 6.28 | 50 | 30 | Clear |
| **Average** | - | - | - | 21.9 | 189 | 6.2 | 6.82 | 120 | 58 | Clear |
| **Maximum** | - | - | - | 23.1 | 227 | 6.2 | 7.12 | 270 | 130 | Clear |

NR = No reading attempted

**Table 7**
**MNA Parameter Data Summary**
**August 14, 2013**

| Parameters | Method | MDL* | Units | MW-1R | MW-2 | MW-8 |
|---|---|---|---|---|---|---|
| | | | | 08/14/13 | 08/14/13 | 08/14/13 |
| VFA – Acetic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – Butyric Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – Hexanoic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – i-Hexanoic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – i-Pentanoic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – Lactic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – Pentaonic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – Propionic Acid | AM23G | NS | ug/L | NS | NS | NS |
| VFA – Pyruvic Acid | AM23G | NS | ug/L | NS | NS | NS |
| Hydrogen | AM20GAX | NS | nM | NS | NS | NS |
| Methane | AM20GAX | NS | ug/L | NS | NS | NS |
| Ethene | AM20GAX | NS | ug/L | NS | NS | NS |
| Ethane | AM20GAX | NS | ug/L | NS | NS | NS |
| CO2-Dissolved | Field Hach Kit | 0 | mg/L | 40 | >100 | >100 |
| Alkalinity | SM 2320B | 1000 | ug/L | 1050 | 594000 | <1000 |
| Sulfate | SM426C | 2000 | ug/L | <2000 | 15100 | <2000 |
| Sulfide | SM4500-S2D | 100 | ug/L | <100 | <100 | <100 |
| Chloride | SM 4500-CLE | 5000 | ug/L | 2130 | 86000 | 7940 |
| TOC | SM 5310C | 1000 | ug/L | <1000 | 29800 | 1970 |
| COD | SM 5220D | 25000 | ug/L | <25000 | 54000 | <25000 |
| BOD | SM5210B | NS | ug/L | NS | NS | NS |
| Iron | EPA 6010 | 50 | ug/L | 376 | 41500 | <50 |
| Nitrate | EPA 353.2 | 20 | ug/L | 68.1 | <20 | 868 |
| Temperature | Field Instrument | 0 | Degrees C | 17.1 | 20.8 | 17.1 |
| ORP | Field Instrument | -900 | mV | 420 | -32 | 362 |
| DO | Field Instrument | 0 | ug/L | 5.2 | 1.1 | 2.4 |
| pH | Field Instrument | 0.00 | SU | 6.08 | 6.83 | 5.04 |
| Specific Conductance | Field Instrument | 0 | uMhos | 0 | 1340 | 10 |
| Turbidity | Field Instrument | 1.00 | NTU | 209 | 201 | 89 |

**Notes:**

VFA = Volatile Fatty Acids

MDL* = Lowest Method Detection Limit for Lab Parameters or Lowest Field Measurement Possible

>100 = CO2 Concentration Exceeds Maximum capability of Method Used

Constituents Below Quantization Limit are shown as <MDL value

NS = Not Sampled as not required during this specific event.

# Appendix A
# Laboratory Analysis Reports
# Chains of Custody

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9800 Kincey Ave. Suite 100
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August 31, 2013

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Charlotte Certification IDs**
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

**Asheville Certification IDs**
2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222



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## SAMPLE SUMMARY

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **92169058001** | **MW-1R** | Water | 08/14/13 09:55 | 08/15/13 16:10 |
| **92169058002** | **MW-2** | Water | 08/14/13 11:25 | 08/15/13 16:10 |
| **92169058003** | **MW-8** | Water | 08/14/13 10:35 | 08/15/13 16:10 |
| **92169058004** | **MW-3** | Water | 08/13/13 14:00 | 08/15/13 16:10 |
| **92169058005** | **MW-4** | Water | 08/13/13 10:10 | 08/15/13 16:10 |
| **92169058006** | **MW-5** | Water | 08/13/13 11:25 | 08/15/13 16:10 |
| **92169058007** | **MW-6** | Water | 08/13/13 10:45 | 08/15/13 16:10 |
| **92169058008** | **MW-7** | Water | 08/13/13 14:40 | 08/15/13 16:10 |
| **92169058009** | **MW-9** | Water | 08/13/13 15:10 | 08/15/13 16:10 |
| **92169058010** | **MW-10** | Water | 08/13/13 16:50 | 08/15/13 16:10 |
| **92169058011** | **MW-11** | Water | 08/13/13 12:00 | 08/15/13 16:10 |



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# SAMPLE ANALYTE COUNT

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **92169058001** | **MW-1R** | EPA 6010 | JDA | 17 | PASI-A |
| | | EPA 7470 | SH1 | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 2320B | AES2 | 1 | PASI-A |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | EPA 300.0 | SAE | 1 | PASI-A |
| | | EPA 353.2 | DMN | 1 | PASI-A |
| | | SM 4500-Cl-E | DMN | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| | | SM 5220D | EWS | 1 | PASI-A |
| | | SM 5310B | SAE | 1 | PASI-A |
| **92169058002** | **MW-2** | EPA 6010 | JDA | 17 | PASI-A |
| | | EPA 7470 | SH1 | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 2320B | AES2 | 1 | PASI-A |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | EPA 300.0 | SAE | 1 | PASI-A |
| | | EPA 353.2 | DMN | 1 | PASI-A |
| | | SM 4500-Cl-E | DMN | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| | | SM 5220D | EWS | 1 | PASI-A |
| | | SM 5310B | SAE | 1 | PASI-A |
| **92169058003** | **MW-8** | EPA 6010 | JDA | 17 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 2320B | AES2 | 1 | PASI-A |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | EPA 300.0 | SAE | 1 | PASI-A |
| | | EPA 353.2 | DMN | 1 | PASI-A |
| | | SM 4500-Cl-E | DMN | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| | | SM 5220D | EWS | 1 | PASI-A |
| | | SM 5310B | SAE | 1 | PASI-A |
| **92169058004** | **MW-3** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |



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# SAMPLE ANALYTE COUNT

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058005** | **MW-4** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058006** | **MW-5** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058007** | **MW-6** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058008** | **MW-7** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058009** | **MW-9** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058010** | **MW-10** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169058011** | **MW-11** | EPA 6010 | JDA | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-S2D | EWS | 1 | PASI-A |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-1R** **Lab ID: 92169058001** Collected: 08/14/13 09:55 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 | Preparation Method: SM 3030C | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-38-2 | |
| Barium | **12.8J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-50-8 | |
| Iron | **150J** | ug/L | 300 | 50.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7439-89-6 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:26 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 | Preparation Method: EPA 7470 | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/25/13 14:30 | 08/26/13 15:48 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 16:57 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 16:57 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 16:57 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 16:57 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 16:57 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 16:57 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 16:57 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 16:57 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 16:57 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 16:57 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 16:57 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 16:57 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 16:57 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 16:57 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 16:57 | 75-00-3 | |
| Chloroform | **0.43J** | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 16:57 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 16:57 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 16:57 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 16:57 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 16:57 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 16:57 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 16:57 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 16:57 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 16:57 | 541-73-1 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-1R** **Lab ID: 92169058001** Collected: 08/14/13 09:55 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 16:57 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 16:57 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 16:57 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 16:57 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 16:57 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 16:57 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 16:57 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 16:57 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 16:57 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 16:57 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 16:57 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 16:57 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 16:57 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 16:57 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 16:57 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 16:57 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 16:57 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 16:57 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 16:57 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 16:57 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 16:57 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 16:57 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 16:57 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 16:57 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 16:57 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 16:57 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 16:57 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 16:57 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 16:57 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 16:57 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 16:57 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 16:57 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 16:57 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 16:57 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 16:57 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 16:57 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 16:57 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 16:57 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 16:57 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 16:57 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 103 | % | 70-130 | | 1 | | 08/16/13 16:57 | 460-00-4 | |
| Dibromofluoromethane (S) | 111 | % | 70-130 | | 1 | | 08/16/13 16:57 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 70-130 | | 1 | | 08/16/13 16:57 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 08/16/13 16:57 | 2037-26-5 | |

## REPORT OF LABORATORY ANALYSIS

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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-1R** **Lab ID: 92169058001** Collected: 08/14/13 09:55 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **2320B Alkalinity** | Analytical Method: SM 2320B | | | | | | | | |
| Alkalinity, Total as CaCO3 | **1050J** | ug/L | 5000 | 1000 | 1 | | 08/19/13 16:21 | | |
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | | |
| Sulfate | ND | ug/L | 250000 | 2000 | 1 | | 08/29/13 20:42 | 14808-79-8 | |
| **353.2 Nitrogen, NO2/NO3 unpres** | Analytical Method: EPA 353.2 | | | | | | | | |
| Nitrogen, Nitrate | **68.1J** | ug/L | 10000 | 20.0 | 1 | | 08/15/13 23:52 | | |
| **4500 Chloride** | Analytical Method: SM 4500-Cl-E | | | | | | | | |
| Chloride | **2130** | ug/L | 1000 | 1000 | 1 | | 08/28/13 17:54 | 16887-00-6 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:24 | 57-12-5 | |
| **5220D COD** | Analytical Method: SM 5220D | | | | | | | | |
| Chemical Oxygen Demand | ND | ug/L | 25000 | 25000 | 1 | | 08/26/13 11:25 | | |
| **5310B TOC** | Analytical Method: SM 5310B | | | | | | | | |
| Total Organic Carbon | ND | ug/L | 1000 | 1000 | 1 | | 08/28/13 20:17 | 7440-44-0 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-2** **Lab ID: 92169058002** Collected: 08/14/13 11:25 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 | | Preparation Method: SM 3030C | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-38-2 | |
| Barium | **138** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-47-3 | |
| Cobalt | **55.7** | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-48-4 | |
| Copper | **14.8** | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-50-8 | |
| Iron | **33000** | ug/L | 300 | 50.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7439-89-6 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-62-2 | |
| Zinc | **11.0** | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:32 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 | | Preparation Method: EPA 7470 | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/25/13 14:30 | 08/26/13 15:50 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 17:13 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 17:13 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 17:13 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 17:13 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 17:13 | 107-05-1 | |
| Benzene | **2.0** | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 17:13 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 17:13 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 17:13 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 17:13 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 17:13 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 17:13 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 17:13 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 17:13 | 56-23-5 | |
| Chlorobenzene | **19.7** | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 17:13 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 17:13 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 17:13 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 17:13 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 17:13 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 17:13 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 17:13 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 17:13 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 17:13 | 74-95-3 | |
| 1,2-Dichlorobenzene | **0.46J** | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 17:13 | 95-50-1 | |
| 1,3-Dichlorobenzene | **0.36J** | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 17:13 | 541-73-1 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-2** **Lab ID: 92169058002** Collected: 08/14/13 11:25 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | **4.4** | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 17:13 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 17:13 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 17:13 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 17:13 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 17:13 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 17:13 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 17:13 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 17:13 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 17:13 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 17:13 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 17:13 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 17:13 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 17:13 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:13 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 17:13 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 17:13 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 17:13 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 17:13 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 17:13 | 74-88-4 | |
| Isobutanol | **49.5J** | ug/L | 100 | 35.0 | 1 | | 08/16/13 17:13 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 17:13 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 17:13 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 17:13 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 17:13 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 17:13 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 17:13 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:13 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 17:13 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 17:13 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 17:13 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:13 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 17:13 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 17:13 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 17:13 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 17:13 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 17:13 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 17:13 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 17:13 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 17:13 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 17:13 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 101 | % | 70-130 | | 1 | | 08/16/13 17:13 | 460-00-4 | |
| Dibromofluoromethane (S) | 112 | % | 70-130 | | 1 | | 08/16/13 17:13 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 70-130 | | 1 | | 08/16/13 17:13 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 08/16/13 17:13 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-2** **Lab ID: 92169058002** Collected: 08/14/13 11:25 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **2320B Alkalinity** | Analytical Method: SM 2320B | | | | | | | | |
| Alkalinity, Total as CaCO3 | **594000** | ug/L | 5000 | 1000 | 1 | | 08/19/13 16:29 | | |
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | | |
| Sulfate | **15100J** | ug/L | 250000 | 2000 | 1 | | 08/29/13 20:55 | 14808-79-8 | |
| **353.2 Nitrogen, NO2/NO3 unpres** | Analytical Method: EPA 353.2 | | | | | | | | |
| Nitrogen, Nitrate | ND | ug/L | 10000 | 20.0 | 1 | | 08/15/13 23:56 | | |
| **4500 Chloride** | Analytical Method: SM 4500-Cl-E | | | | | | | | |
| Chloride | **86000** | ug/L | 4000 | 4000 | 4 | | 08/28/13 17:58 | 16887-00-6 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | **9.9J** | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:35 | 57-12-5 | |
| **5220D COD** | Analytical Method: SM 5220D | | | | | | | | |
| Chemical Oxygen Demand | **54000** | ug/L | 25000 | 25000 | 1 | | 08/26/13 11:25 | | |
| **5310B TOC** | Analytical Method: SM 5310B | | | | | | | | |
| Total Organic Carbon | **29800** | ug/L | 2000 | 2000 | 2 | | 08/29/13 11:08 | 7440-44-0 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-8** **Lab ID: 92169058003** Collected: 08/14/13 10:35 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 | | Preparation Method: SM 3030C | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-38-2 | |
| Barium | **75.1J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-50-8 | |
| Iron | ND | ug/L | 300 | 50.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7439-89-6 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:29 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 | | Preparation Method: EPA 7470 | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 14:40 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 17:28 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 17:28 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 17:28 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 17:28 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 17:28 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 17:28 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 17:28 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 17:28 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 17:28 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 17:28 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 17:28 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 17:28 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 17:28 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 17:28 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 17:28 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 17:28 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 17:28 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 17:28 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 17:28 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 17:28 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 17:28 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 17:28 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 17:28 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 17:28 | 541-73-1 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-8** **Lab ID: 92169058003** Collected: 08/14/13 10:35 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 17:28 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 17:28 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 17:28 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 17:28 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 17:28 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 17:28 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 17:28 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 17:28 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 17:28 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 17:28 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 17:28 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 17:28 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 17:28 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:28 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 17:28 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 17:28 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 17:28 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 17:28 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 17:28 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 17:28 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 17:28 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 17:28 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 17:28 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | **0.99J** | ug/L | 100 | 0.33 | 1 | | 08/16/13 17:28 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 17:28 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 17:28 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:28 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 17:28 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 17:28 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 17:28 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:28 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 17:28 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 17:28 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 17:28 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 17:28 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 17:28 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 17:28 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 17:28 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 17:28 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 17:28 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 101 | % | 70-130 | | 1 | | 08/16/13 17:28 | 460-00-4 | |
| Dibromofluoromethane (S) | 110 | % | 70-130 | | 1 | | 08/16/13 17:28 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 70-130 | | 1 | | 08/16/13 17:28 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 08/16/13 17:28 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-8** **Lab ID: 92169058003** Collected: 08/14/13 10:35 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **2320B Alkalinity** | Analytical Method: SM 2320B | | | | | | | | |
| Alkalinity, Total as CaCO3 | ND | ug/L | 5000 | 1000 | 1 | | 08/19/13 16:52 | | |
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **300.0 IC Anions 28 Days** | Analytical Method: EPA 300.0 | | | | | | | | |
| Sulfate | ND | ug/L | 250000 | 2000 | 1 | | 08/29/13 21:09 | 14808-79-8 | |
| **353.2 Nitrogen, NO2/NO3 unpres** | Analytical Method: EPA 353.2 | | | | | | | | |
| Nitrogen, Nitrate | **868J** | ug/L | 10000 | 20.0 | 1 | | 08/15/13 23:54 | | |
| **4500 Chloride** | Analytical Method: SM 4500-Cl-E | | | | | | | | |
| Chloride | **7940** | ug/L | 1000 | 1000 | 1 | | 08/28/13 18:45 | 16887-00-6 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:36 | 57-12-5 | |
| **5220D COD** | Analytical Method: SM 5220D | | | | | | | | |
| Chemical Oxygen Demand | ND | ug/L | 25000 | 25000 | 1 | | 08/26/13 11:25 | | |
| **5310B TOC** | Analytical Method: SM 5310B | | | | | | | | |
| Total Organic Carbon | **1970** | ug/L | 1000 | 1000 | 1 | | 08/28/13 21:07 | 7440-44-0 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-3** **Lab ID: 92169058004** Collected: 08/13/13 14:00 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-38-2 | |
| Barium | **17.1J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:04 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 14:48 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 17:44 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 17:44 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 17:44 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 17:44 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 17:44 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 17:44 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 17:44 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 17:44 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 17:44 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 17:44 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 17:44 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 17:44 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 17:44 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 17:44 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 17:44 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 17:44 | 67-66-3 | |
| Chloromethane | **0.37J** | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 17:44 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 17:44 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 17:44 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 17:44 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 17:44 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 17:44 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 17:44 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 17:44 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 17:44 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-3** **Lab ID: 92169058004** Collected: 08/13/13 14:00 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 17:44 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 17:44 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 17:44 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 17:44 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 17:44 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 17:44 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 17:44 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 17:44 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 17:44 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 17:44 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 17:44 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 17:44 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:44 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 17:44 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 17:44 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 17:44 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 17:44 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 17:44 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 17:44 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 17:44 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 17:44 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 17:44 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 17:44 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 17:44 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 17:44 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:44 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 17:44 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 17:44 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 17:44 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 17:44 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 17:44 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 17:44 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 17:44 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 17:44 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 17:44 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 17:44 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 17:44 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 17:44 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 17:44 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 102 | % | 70-130 | | 1 | | 08/16/13 17:44 | 460-00-4 | |
| Dibromofluoromethane (S) | 110 | % | 70-130 | | 1 | | 08/16/13 17:44 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 113 | % | 70-130 | | 1 | | 08/16/13 17:44 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 08/16/13 17:44 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-3** **Lab ID: 92169058004** Collected: 08/13/13 14:00 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 15:58 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-4** **Lab ID: 92169058005** Collected: 08/13/13 10:10 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-38-2 | |
| Barium | **24.0J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-41-7 | |
| Cadmium | **1.4** | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-48-4 | |
| Copper | **28.8** | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-62-2 | |
| Zinc | **49.9** | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:45 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 14:50 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 18:00 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 18:00 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 18:00 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 18:00 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 18:00 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:00 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 18:00 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 18:00 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 18:00 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 18:00 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 18:00 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 18:00 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:00 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 18:00 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 18:00 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 18:00 | 67-66-3 | |
| Chloromethane | **0.27J** | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 18:00 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 18:00 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 18:00 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 18:00 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:00 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 18:00 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 18:00 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 18:00 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 18:00 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-4** **Lab ID: 92169058005** Collected: 08/13/13 10:10 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 18:00 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 18:00 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 18:00 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 18:00 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 18:00 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 18:00 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:00 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:00 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 18:00 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 18:00 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:00 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 18:00 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:00 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 18:00 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 18:00 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 18:00 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 18:00 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 18:00 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 18:00 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 18:00 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 18:00 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 18:00 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 18:00 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 18:00 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 18:00 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:00 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 18:00 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 18:00 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 18:00 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:00 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 18:00 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 18:00 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 18:00 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 18:00 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 18:00 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 18:00 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 18:00 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 18:00 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 18:00 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 104 | % | 70-130 | | 1 | | 08/16/13 18:00 | 460-00-4 | |
| Dibromofluoromethane (S) | 112 | % | 70-130 | | 1 | | 08/16/13 18:00 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 116 | % | 70-130 | | 1 | | 08/16/13 18:00 | 17060-07-0 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 08/16/13 18:00 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-4** **Lab ID: 92169058005** Collected: 08/13/13 10:10 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | **5.5J** | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 15:59 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-5** **Lab ID: 92169058006** Collected: 08/13/13 11:25 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-38-2 | |
| Barium | **44.7J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-62-2 | |
| Zinc | **13.6** | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:58 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 14:53 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 18:16 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 18:16 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 18:16 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 18:16 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 18:16 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:16 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 18:16 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 18:16 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 18:16 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 18:16 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 18:16 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 18:16 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:16 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 18:16 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 18:16 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 18:16 | 67-66-3 | |
| Chloromethane | **0.32J** | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 18:16 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 18:16 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 18:16 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 18:16 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:16 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 18:16 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 18:16 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 18:16 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 18:16 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-5** **Lab ID: 92169058006** Collected: 08/13/13 11:25 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 18:16 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 18:16 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 18:16 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 18:16 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 18:16 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 18:16 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:16 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:16 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 18:16 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 18:16 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:16 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 18:16 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:16 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 18:16 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 18:16 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 18:16 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 18:16 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 18:16 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 18:16 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 18:16 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 18:16 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 18:16 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 18:16 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 18:16 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 18:16 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:16 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 18:16 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 18:16 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 18:16 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:16 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 18:16 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 18:16 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 18:16 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 18:16 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 18:16 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 18:16 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 18:16 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 18:16 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 18:16 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 105 | % | 70-130 | | 1 | | 08/16/13 18:16 | 460-00-4 | |
| Dibromofluoromethane (S) | 111 | % | 70-130 | | 1 | | 08/16/13 18:16 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 113 | % | 70-130 | | 1 | | 08/16/13 18:16 | 17060-07-0 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 08/16/13 18:16 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-5** **Lab ID: 92169058006** Collected: 08/13/13 11:25 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:02 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-6** **Lab ID: 92169058007** Collected: 08/13/13 10:45 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-38-2 | |
| Barium | **174** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-22-4 | |
| Thallium | **6.0** | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 01:55 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 14:56 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 18:32 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 18:32 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 18:32 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 18:32 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 18:32 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:32 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 18:32 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 18:32 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 18:32 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 18:32 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 18:32 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 18:32 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:32 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 18:32 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 18:32 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 18:32 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 18:32 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 18:32 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 18:32 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 18:32 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:32 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 18:32 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 18:32 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 18:32 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 18:32 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-6** **Lab ID: 92169058007** Collected: 08/13/13 10:45 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 18:32 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 18:32 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 18:32 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 18:32 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 18:32 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 18:32 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:32 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:32 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 18:32 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 18:32 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:32 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 18:32 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:32 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 18:32 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 18:32 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 18:32 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 18:32 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 18:32 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 18:32 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 18:32 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 18:32 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 18:32 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 18:32 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 18:32 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 18:32 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:32 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 18:32 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 18:32 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 18:32 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:32 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 18:32 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 18:32 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 18:32 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 18:32 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 18:32 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 18:32 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 18:32 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 18:32 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 18:32 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 101 | % | 70-130 | | 1 | | 08/16/13 18:32 | 460-00-4 | |
| Dibromofluoromethane (S) | 111 | % | 70-130 | | 1 | | 08/16/13 18:32 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 112 | % | 70-130 | | 1 | | 08/16/13 18:32 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 08/16/13 18:32 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-6** **Lab ID: 92169058007** Collected: 08/13/13 10:45 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:05 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-7** **Lab ID: 92169058008** Collected: 08/13/13 14:40 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-38-2 | |
| Barium | **31.3J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:07 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 14:58 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 18:48 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 18:48 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 18:48 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 18:48 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 18:48 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:48 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 18:48 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 18:48 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 18:48 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 18:48 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 18:48 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 18:48 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 18:48 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 18:48 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 18:48 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 18:48 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 18:48 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 18:48 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 18:48 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 18:48 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:48 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 18:48 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 18:48 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 18:48 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 18:48 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-7** **Lab ID: 92169058008** Collected: 08/13/13 14:40 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 18:48 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 18:48 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 18:48 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 18:48 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 18:48 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 18:48 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:48 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 18:48 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 18:48 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 18:48 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 18:48 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 18:48 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:48 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 18:48 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 18:48 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 18:48 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 18:48 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 18:48 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 18:48 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 18:48 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 18:48 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 18:48 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | **0.38J** | ug/L | 100 | 0.33 | 1 | | 08/16/13 18:48 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 18:48 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 18:48 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:48 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 18:48 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 18:48 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 18:48 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 18:48 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 18:48 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 18:48 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 18:48 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 18:48 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 18:48 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 18:48 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 18:48 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 18:48 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 18:48 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 103 | % | 70-130 | | 1 | | 08/16/13 18:48 | 460-00-4 | |
| Dibromofluoromethane (S) | 110 | % | 70-130 | | 1 | | 08/16/13 18:48 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 110 | % | 70-130 | | 1 | | 08/16/13 18:48 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-130 | | 1 | | 08/16/13 18:48 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-7** **Lab ID: 92169058008** Collected: 08/13/13 14:40 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | **5.5J** | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:09 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-9** **Lab ID: 92169058009** Collected: 08/13/13 15:10 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-38-2 | |
| Barium | **13.8J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:20 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 15:01 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 19:04 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 19:04 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 19:04 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 19:04 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 19:04 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 19:04 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 19:04 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 19:04 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 19:04 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 19:04 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 19:04 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 19:04 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 19:04 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 19:04 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 19:04 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 19:04 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 19:04 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 19:04 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 19:04 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 19:04 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 19:04 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 19:04 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 19:04 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 19:04 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 19:04 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-9** **Lab ID: 92169058009** Collected: 08/13/13 15:10 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 19:04 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 19:04 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 19:04 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 19:04 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 19:04 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 19:04 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 19:04 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 19:04 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 19:04 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 19:04 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 19:04 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 19:04 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:04 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 19:04 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 19:04 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 19:04 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 19:04 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 19:04 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 19:04 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 19:04 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 19:04 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 19:04 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 19:04 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 19:04 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 19:04 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:04 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 19:04 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 19:04 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 19:04 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:04 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 19:04 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 19:04 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 19:04 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 19:04 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 19:04 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 19:04 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 19:04 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 19:04 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 19:04 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 103 | % | 70-130 | | 1 | | 08/16/13 19:04 | 460-00-4 | |
| Dibromofluoromethane (S) | 111 | % | 70-130 | | 1 | | 08/16/13 19:04 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 113 | % | 70-130 | | 1 | | 08/16/13 19:04 | 17060-07-0 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 08/16/13 19:04 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-9** **Lab ID: 92169058009** Collected: 08/13/13 15:10 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:10 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-10** **Lab ID: 92169058010** Collected: 08/13/13 16:50 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-38-2 | |
| Barium | **276** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:23 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 15:09 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 19:19 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 19:19 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 19:19 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 19:19 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 19:19 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 19:19 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 19:19 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 19:19 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 19:19 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 19:19 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 19:19 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 19:19 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 19:19 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 19:19 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 19:19 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 19:19 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 19:19 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 19:19 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 19:19 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 19:19 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 19:19 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 19:19 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 19:19 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 19:19 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 19:19 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-10** **Lab ID: 92169058010** Collected: 08/13/13 16:50 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 19:19 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 19:19 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 19:19 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 19:19 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 19:19 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 19:19 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 19:19 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 19:19 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 19:19 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 19:19 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 19:19 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 19:19 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:19 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 19:19 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 19:19 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 19:19 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 19:19 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 19:19 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 19:19 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 19:19 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 19:19 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 19:19 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | **2.4J** | ug/L | 100 | 0.33 | 1 | | 08/16/13 19:19 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 19:19 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 19:19 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:19 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 19:19 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 19:19 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 19:19 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:19 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 19:19 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 19:19 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 19:19 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 19:19 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 19:19 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 19:19 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 19:19 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 19:19 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 19:19 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 101 | % | 70-130 | | 1 | | 08/16/13 19:19 | 460-00-4 | |
| Dibromofluoromethane (S) | 113 | % | 70-130 | | 1 | | 08/16/13 19:19 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 114 | % | 70-130 | | 1 | | 08/16/13 19:19 | 17060-07-0 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 08/16/13 19:19 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-10** **Lab ID: 92169058010** Collected: 08/13/13 16:50 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | M1,R1 |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:11 | 57-12-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-11** **Lab ID: 92169058011** Collected: 08/13/13 12:00 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-38-2 | |
| Barium | **584** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-41-7 | |
| Cadmium | **3.0** | ug/L | 1.0 | 1.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-47-3 | |
| Cobalt | **13.6** | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7439-92-1 | |
| Nickel | **17.0J** | ug/L | 50.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-28-0 | |
| Tin | **6.0J** | ug/L | 100 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-31-5 | |
| Vanadium | **11.1J** | ug/L | 25.0 | 5.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-62-2 | |
| Zinc | **28.3** | ug/L | 10.0 | 10.0 | 1 | 08/16/13 09:05 | 08/20/13 02:01 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 15:12 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/16/13 19:35 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/16/13 19:35 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/16/13 19:35 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/16/13 19:35 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/16/13 19:35 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 19:35 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/16/13 19:35 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/16/13 19:35 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/16/13 19:35 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/16/13 19:35 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/16/13 19:35 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/16/13 19:35 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/16/13 19:35 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/16/13 19:35 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/16/13 19:35 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/16/13 19:35 | 67-66-3 | |
| Chloromethane | **0.39J** | ug/L | 1.0 | 0.11 | 1 | | 08/16/13 19:35 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/16/13 19:35 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/16/13 19:35 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/16/13 19:35 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 19:35 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/16/13 19:35 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/16/13 19:35 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/16/13 19:35 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/16/13 19:35 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-11** **Lab ID: 92169058011** Collected: 08/13/13 12:00 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/16/13 19:35 | 110-57-6 | |
| Dichlorodifluoromethane | **0.89J** | ug/L | 5.0 | 0.21 | 1 | | 08/16/13 19:35 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/16/13 19:35 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/16/13 19:35 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/16/13 19:35 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/16/13 19:35 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 19:35 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/16/13 19:35 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/16/13 19:35 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/16/13 19:35 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/16/13 19:35 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/16/13 19:35 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:35 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/16/13 19:35 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/16/13 19:35 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/16/13 19:35 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/16/13 19:35 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/16/13 19:35 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/16/13 19:35 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/16/13 19:35 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/16/13 19:35 | 75-09-2 | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/16/13 19:35 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/16/13 19:35 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/16/13 19:35 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/16/13 19:35 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:35 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/16/13 19:35 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/16/13 19:35 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/16/13 19:35 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/16/13 19:35 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/16/13 19:35 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/16/13 19:35 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/16/13 19:35 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/16/13 19:35 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/16/13 19:35 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/16/13 19:35 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/16/13 19:35 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/16/13 19:35 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/16/13 19:35 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 102 | % | 70-130 | | 1 | | 08/16/13 19:35 | 460-00-4 | |
| Dibromofluoromethane (S) | 107 | % | 70-130 | | 1 | | 08/16/13 19:35 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 115 | % | 70-130 | | 1 | | 08/16/13 19:35 | 17060-07-0 | |
| Toluene-d8 (S) | 98 | % | 70-130 | | 1 | | 08/16/13 19:35 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

**Sample: MW-11** **Lab ID: 92169058011** Collected: 08/13/13 12:00 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500S2D Sulfide Water** | Analytical Method: SM 4500-S2D | | | | | | | | |
| Sulfide | ND | ug/L | 1000 | 100 | 1 | | 08/20/13 17:00 | 18496-25-8 | |
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | **6.0J** | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:12 | 57-12-5 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: MERP/5510 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Associated Lab Samples: 92169058001, 92169058002

METHOD BLANK: 1035153 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | ND | 0.20 | 08/26/13 14:58 | |

LABORATORY CONTROL SAMPLE: 1035154

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 2.5 | 2.6 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035155 — 1035156

| Parameter | Units | 92169042001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | ND | 2.5 | 2.5 | 0.90 | 0.83 | 36 | 33 | 75-125 | 9 | 25 | M1 |

## REPORT OF LABORATORY ANALYSIS

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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: MERP/5512 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Associated Lab Samples: 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

METHOD BLANK: 1035170 — Matrix: Water
Associated Lab Samples: 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | ND | 0.20 | 08/27/13 14:21 | |

LABORATORY CONTROL SAMPLE: 1035171

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 2.5 | 2.1 | 85 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035172 — 1035173

| Parameter | Units | 92169058003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.4 | 2.5 | 93 | 97 | 75-125 | 3 | 25 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: MPRP/13995 — Analysis Method: EPA 6010
QC Batch Method: SM 3030C — Analysis Description: 6010 MET 3030C
Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

METHOD BLANK: 1030394 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Antimony | ug/L | ND | 6.0 | 08/20/13 01:39 | |
| Arsenic | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Barium | ug/L | ND | 100 | 08/20/13 01:39 | |
| Beryllium | ug/L | ND | 1.0 | 08/20/13 01:39 | |
| Cadmium | ug/L | ND | 1.0 | 08/20/13 01:39 | |
| Chromium | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Cobalt | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Copper | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Iron | ug/L | ND | 300 | 08/20/13 01:39 | |
| Lead | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Nickel | ug/L | ND | 50.0 | 08/20/13 01:39 | |
| Selenium | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Silver | ug/L | ND | 10.0 | 08/20/13 01:39 | |
| Thallium | ug/L | ND | 5.5 | 08/20/13 01:39 | |
| Tin | ug/L | ND | 100 | 08/20/13 01:39 | |
| Vanadium | ug/L | ND | 25.0 | 08/20/13 01:39 | |
| Zinc | ug/L | ND | 10.0 | 08/20/13 01:39 | |

LABORATORY CONTROL SAMPLE: 1030395

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 500 | 506 | 101 | 80-120 | |
| Arsenic | ug/L | 500 | 513 | 103 | 80-120 | |
| Barium | ug/L | 500 | 489 | 98 | 80-120 | |
| Beryllium | ug/L | 500 | 511 | 102 | 80-120 | |
| Cadmium | ug/L | 500 | 501 | 100 | 80-120 | |
| Chromium | ug/L | 500 | 472 | 94 | 80-120 | |
| Cobalt | ug/L | 500 | 488 | 98 | 80-120 | |
| Copper | ug/L | 500 | 488 | 98 | 80-120 | |
| Iron | ug/L | 5000 | 4810 | 96 | 80-120 | |
| Lead | ug/L | 500 | 503 | 101 | 80-120 | |
| Nickel | ug/L | 500 | 502 | 100 | 80-120 | |
| Selenium | ug/L | 500 | 600 | 120 | 80-120 | |
| Silver | ug/L | 250 | 247 | 99 | 80-120 | |
| Thallium | ug/L | 500 | 479 | 96 | 80-120 | |
| Tin | ug/L | 500 | 509 | 102 | 80-120 | |
| Vanadium | ug/L | 500 | 479 | 96 | 80-120 | |
| Zinc | ug/L | 500 | 537 | 107 | 80-120 | |


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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1030396 1030397

| Parameter | Units | 92169058005 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | ND | 500 | 500 | 490 | 490 | 98 | 98 | 75-125 | 0 | 20 | |
| Arsenic | ug/L | ND | 500 | 500 | 489 | 490 | 98 | 98 | 75-125 | 0 | 20 | |
| Barium | ug/L | 24.0J | 500 | 500 | 491 | 496 | 93 | 94 | 75-125 | 1 | 20 | |
| Beryllium | ug/L | ND | 500 | 500 | 486 | 486 | 97 | 97 | 75-125 | 0 | 20 | |
| Cadmium | ug/L | 1.4 | 500 | 500 | 487 | 485 | 97 | 97 | 75-125 | 0 | 20 | |
| Chromium | ug/L | ND | 500 | 500 | 455 | 455 | 91 | 91 | 75-125 | 0 | 20 | |
| Cobalt | ug/L | ND | 500 | 500 | 468 | 471 | 94 | 94 | 75-125 | 1 | 20 | |
| Copper | ug/L | 28.8 | 500 | 500 | 483 | 480 | 91 | 90 | 75-125 | 1 | 20 | |
| Iron | ug/L | 133J | 5000 | 5000 | 4780 | 4830 | 93 | 94 | 75-125 | 1 | 20 | |
| Lead | ug/L | ND | 500 | 500 | 485 | 485 | 96 | 96 | 75-125 | 0 | 20 | |
| Nickel | ug/L | ND | 500 | 500 | 484 | 485 | 96 | 97 | 75-125 | 0 | 20 | |
| Selenium | ug/L | ND | 500 | 500 | 552 | 554 | 109 | 110 | 75-125 | 0 | 20 | |
| Silver | ug/L | ND | 250 | 250 | 243 | 240 | 97 | 96 | 75-125 | 1 | 20 | |
| Thallium | ug/L | ND | 500 | 500 | 463 | 468 | 92 | 93 | 75-125 | 1 | 20 | |
| Tin | ug/L | ND | 500 | 500 | 486 | 493 | 97 | 98 | 75-125 | 1 | 20 | |
| Vanadium | ug/L | ND | 500 | 500 | 465 | 467 | 93 | 93 | 75-125 | 0 | 20 | |
| Zinc | ug/L | 49.9 | 500 | 500 | 551 | 548 | 100 | 100 | 75-125 | 1 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: MSV/23960 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

METHOD BLANK: 1030672 Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,1,1-Trichloroethane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 3.0 | 08/16/13 14:18 | |
| 1,1,2-Trichloroethane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,1-Dichloroethane | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,1-Dichloroethene | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,1-Dichloropropene | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,2,3-Trichloropropane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,2,4-Trichlorobenzene | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 13.0 | 08/16/13 14:18 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,2-Dichlorobenzene | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,2-Dichloroethane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,2-Dichloropropane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,3-Dichlorobenzene | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,3-Dichloropropane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 1,4-Dichlorobenzene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| 2,2-Dichloropropane | ug/L | ND | 15.0 | 08/16/13 14:18 | |
| 2-Butanone (MEK) | ug/L | ND | 100 | 08/16/13 14:18 | |
| 2-Hexanone | ug/L | ND | 50.0 | 08/16/13 14:18 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 100 | 08/16/13 14:18 | |
| Acetone | ug/L | ND | 100 | 08/16/13 14:18 | |
| Acetonitrile | ug/L | ND | 55.0 | 08/16/13 14:18 | |
| Acrolein | ug/L | ND | 53.0 | 08/16/13 14:18 | |
| Acrylonitrile | ug/L | ND | 200 | 08/16/13 14:18 | |
| Allyl chloride | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Benzene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Bromochloromethane | ug/L | ND | 3.0 | 08/16/13 14:18 | |
| Bromodichloromethane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Bromoform | ug/L | ND | 3.0 | 08/16/13 14:18 | |
| Bromomethane | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Carbon disulfide | ug/L | ND | 100 | 08/16/13 14:18 | |
| Carbon tetrachloride | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Chlorobenzene | ug/L | ND | 3.0 | 08/16/13 14:18 | |
| Chloroethane | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Chloroform | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| Chloromethane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Chloroprene | ug/L | ND | 20.0 | 08/16/13 14:18 | |
| cis-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| cis-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Dibromochloromethane | ug/L | ND | 3.0 | 08/16/13 14:18 | |


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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

METHOD BLANK: 1030672 Matrix: Water

Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Dibromomethane | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Dichlorodifluoromethane | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| Ethyl methacrylate | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Ethylbenzene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Hexachloro-1,3-butadiene | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Iodomethane | ug/L | 0.63J | 10.0 | 08/16/13 14:18 | |
| Isobutanol | ug/L | ND | 100 | 08/16/13 14:18 | |
| Methacrylonitrile | ug/L | ND | 100 | 08/16/13 14:18 | |
| Methyl methacrylate | ug/L | ND | 30.0 | 08/16/13 14:18 | |
| Methylene Chloride | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Naphthalene | ug/L | ND | 10.0 | 08/16/13 14:18 | |
| Propionitrile | ug/L | ND | 150 | 08/16/13 14:18 | |
| Styrene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Tetrachloroethene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Toluene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| trans-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| trans-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| trans-1,4-Dichloro-2-butene | ug/L | ND | 100 | 08/16/13 14:18 | |
| Trichloroethene | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Trichlorofluoromethane | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Vinyl acetate | ug/L | ND | 50.0 | 08/16/13 14:18 | |
| Vinyl chloride | ug/L | ND | 1.0 | 08/16/13 14:18 | |
| Xylene (Total) | ug/L | ND | 5.0 | 08/16/13 14:18 | |
| 1,2-Dichloroethane-d4 (S) | % | 108 | 70-130 | 08/16/13 14:18 | |
| 4-Bromofluorobenzene (S) | % | 101 | 70-130 | 08/16/13 14:18 | |
| Dibromofluoromethane (S) | % | 105 | 70-130 | 08/16/13 14:18 | |
| Toluene-d8 (S) | % | 98 | 70-130 | 08/16/13 14:18 | |

LABORATORY CONTROL SAMPLE: 1030673

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 53.0 | 106 | 70-130 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 52.7 | 105 | 70-130 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 51.2 | 102 | 70-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 55.3 | 111 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 50.9 | 102 | 70-130 | |
| 1,1-Dichloroethene | ug/L | 50 | 49.4 | 99 | 70-132 | |
| 1,1-Dichloropropene | ug/L | 50 | 49.7 | 99 | 70-130 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 49.7 | 99 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 54.2 | 108 | 70-134 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 53.7 | 107 | 70-130 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 52.7 | 105 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 55.6 | 111 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 50.2 | 100 | 70-130 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

LABORATORY CONTROL SAMPLE: 1030673

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | ug/L | 50 | 49.0 | 98 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 54.3 | 109 | 70-130 | |
| 1,3-Dichloropropane | ug/L | 50 | 49.4 | 99 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 53.8 | 108 | 70-130 | |
| 2,2-Dichloropropane | ug/L | 50 | 51.9 | 104 | 58-145 | |
| 2-Butanone (MEK) | ug/L | 100 | 99.5J | 100 | 70-145 | |
| 2-Hexanone | ug/L | 100 | 106 | 106 | 70-144 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 100 | 107 | 107 | 70-140 | |
| Acetone | ug/L | 100 | 100 | 100 | 50-175 | |
| Acetonitrile | ug/L | 500 | 558 | 112 | 70-130 | |
| Acrolein | ug/L | 250 | 278 | 111 | 70-130 | |
| Acrylonitrile | ug/L | 250 | 260 | 104 | 70-143 | |
| Allyl chloride | ug/L | 50 | 49.7 | 99 | 70-130 | |
| Benzene | ug/L | 50 | 53.7 | 107 | 70-130 | |
| Bromochloromethane | ug/L | 50 | 50.8 | 102 | 70-130 | |
| Bromodichloromethane | ug/L | 50 | 52.8 | 106 | 70-130 | |
| Bromoform | ug/L | 50 | 55.1 | 110 | 70-130 | |
| Bromomethane | ug/L | 50 | 45.2 | 90 | 54-130 | |
| Carbon disulfide | ug/L | 50 | 48.5J | 97 | 70-131 | |
| Carbon tetrachloride | ug/L | 50 | 52.7 | 105 | 70-132 | |
| Chlorobenzene | ug/L | 50 | 51.9 | 104 | 70-130 | |
| Chloroethane | ug/L | 50 | 38.2 | 76 | 64-134 | |
| Chloroform | ug/L | 50 | 52.1 | 104 | 70-130 | |
| Chloromethane | ug/L | 50 | 48.8 | 98 | 64-130 | |
| Chloroprene | ug/L | 50 | 52.6 | 105 | 70-130 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 49.9 | 100 | 70-131 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 50.1 | 100 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 54.0 | 108 | 70-130 | |
| Dibromomethane | ug/L | 50 | 52.5 | 105 | 70-131 | |
| Dichlorodifluoromethane | ug/L | 50 | 57.5 | 115 | 56-130 | |
| Ethyl methacrylate | ug/L | 50 | 52.8 | 106 | 70-130 | |
| Ethylbenzene | ug/L | 50 | 51.1 | 102 | 70-130 | |
| Hexachloro-1,3-butadiene | ug/L | 50 | 53.4 | 107 | 70-130 | |
| Iodomethane | ug/L | 100 | 103 | 103 | 49-180 | |
| Isobutanol | ug/L | 1000 | 873 | 87 | 70-130 | |
| Methacrylonitrile | ug/L | 500 | 494 | 99 | 70-130 | |
| Methyl methacrylate | ug/L | 50 | 54.7 | 109 | 70-130 | |
| Methylene Chloride | ug/L | 50 | 48.5 | 97 | 63-130 | |
| Naphthalene | ug/L | 50 | 50.8 | 102 | 70-138 | |
| Propionitrile | ug/L | 500 | 529 | 106 | 70-130 | |
| Styrene | ug/L | 50 | 52.3 | 105 | 70-130 | |
| Tetrachloroethene | ug/L | 50 | 54.1 | 108 | 70-130 | |
| Toluene | ug/L | 50 | 53.1 | 106 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 48.6 | 97 | 70-130 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 51.6 | 103 | 70-132 | |
| trans-1,4-Dichloro-2-butene | ug/L | 50 | 56.2J | 112 | 70-141 | |
| Trichloroethene | ug/L | 50 | 54.4 | 109 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 51.7 | 103 | 62-133 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

LABORATORY CONTROL SAMPLE: 1030673

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Vinyl acetate | ug/L | 100 | 102 | 102 | 66-157 | |
| Vinyl chloride | ug/L | 50 | 50.4 | 101 | 69-130 | |
| Xylene (Total) | ug/L | 150 | 156 | 104 | 70-130 | |
| 1,2-Dichloroethane-d4 (S) | % | | | 91 | 70-130 | |
| 4-Bromofluorobenzene (S) | % | | | 101 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 93 | 70-130 | |
| Toluene-d8 (S) | % | | | 100 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1030674 1030675

| Parameter | Units | 92168800001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ug/L | ND | 50 | 50 | 53.5 | 48.3 | 107 | 97 | 70-166 | 10 | 30 | |
| Benzene | ug/L | ND | 50 | 50 | 57.5 | 52.2 | 115 | 104 | 70-148 | 10 | 30 | |
| Chlorobenzene | ug/L | ND | 50 | 50 | 53.0 | 48.5 | 106 | 97 | 70-146 | 9 | 30 | |
| Toluene | ug/L | ND | 50 | 50 | 54.6 | 50.0 | 109 | 100 | 70-155 | 9 | 30 | |
| Trichloroethene | ug/L | ND | 50 | 50 | 61.6 | 56.3 | 123 | 113 | 69-151 | 9 | 30 | |
| 1,2-Dichloroethane-d4 (S) | % | | | | | | 101 | 102 | 70-130 | | | |
| 4-Bromofluorobenzene (S) | % | | | | | | 105 | 102 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 100 | 102 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 97 | 97 | 70-130 | | | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WET/26729 — Analysis Method: SM 2320B
QC Batch Method: SM 2320B — Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92169058001, 92169058002, 92169058003

METHOD BLANK: 1031580 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | ug/L | ND | 5000 | 08/19/13 12:17 | |

LABORATORY CONTROL SAMPLE: 1031581

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | ug/L | 50000 | 49200 | 98 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031582 1031583

| Parameter | Units | 92168534001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | ug/L | 23.8 mg/L | 50000 | 50000 | 74300 | 73500 | 101 | 99 | 75-125 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031584 1031585

| Parameter | Units | 92168844009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Total as CaCO3 | ug/L | 85.0 mg/L | 50000 | 50000 | 132000 | 131000 | 94 | 92 | 75-125 | 1 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WET/26745 — Analysis Method: SM 4500-S2D
QC Batch Method: SM 4500-S2D — Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

METHOD BLANK: 1031879 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003, 92169058004, 92169058005, 92169058006, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfide | ug/L | ND | 1000 | 08/20/13 17:00 | |

LABORATORY CONTROL SAMPLE: 1031880

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfide | ug/L | 500 | 517J | 103 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031881 — 1031882

| Parameter | Units | 92168649001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | ug/L | ND | 500 | 500 | 467J | 478J | 93 | 96 | 75-125 | 2 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031883 — 1031884

| Parameter | Units | 92169058010 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | ug/L | ND | 500 | 500 | 225J | 338J | 45 | 68 | 75-125 | 40 | 20 | M1,R1 |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16279 — Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 — Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92169058001, 92169058002, 92169058003

METHOD BLANK: 1036977 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Sulfate | ug/L | ND | 250000 | 08/29/13 19:07 | |

LABORATORY CONTROL SAMPLE: 1036978

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Sulfate | ug/L | 20000 | 19000J | 95 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1036979 1036980

| Parameter | Units | 92169028003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | ug/L | 2.3 mg/L | 20000 | 20000 | 20500J | 20200J | 91 | 90 | 90-110 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1036981 1036982

| Parameter | Units | 92169710003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | ug/L | ND | 20000 | 20000 | 22400J | 22500J | 104 | 104 | 90-110 | 0 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16144 — Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 — Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92169058001, 92169058002, 92169058003

METHOD BLANK: 1030329 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Nitrate | ug/L | ND | 10000 | 08/15/13 23:31 | |

LABORATORY CONTROL SAMPLE: 1030330

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Nitrate | ug/L | 2500 | 2540J | 102 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1030331 1030332

| Parameter | Units | 92168825010 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate | ug/L | 0.073 mg/L | 2500 | 2500 | 2700J | 2680J | 105 | 104 | 90-110 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1030333 1030334

| Parameter | Units | 92168825011 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Nitrate | ug/L | 0.048 mg/L | 2500 | 2500 | 2650J | 2650J | 104 | 104 | 90-110 | 0 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16284 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 92169058001, 92169058002, 92169058003

METHOD BLANK: 1037470 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chloride | ug/L | ND | 1000 | 08/28/13 17:41 | |

LABORATORY CONTROL SAMPLE: 1037471

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chloride | ug/L | 20000 | 19800 | 99 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1037472 1037473

| Parameter | Units | 92168844007 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ug/L | 1.9 mg/L | 20000 | 20000 | 23000 | 22800 | 105 | 104 | 75-125 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1037474 1037475

| Parameter | Units | 92168844008 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ug/L | 1.8 mg/L | 20000 | 20000 | 21500 | 21200 | 99 | 97 | 75-125 | 1 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16242 — Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E — Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92169058004, 92169058005, 92169058006

METHOD BLANK: 1035426 — Matrix: Water
Associated Lab Samples: 92169058004, 92169058005, 92169058006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 10.0 | 08/27/13 17:13 | |

LABORATORY CONTROL SAMPLE: 1035427

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Cyanide | ug/L | 100 | 101 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035428 1035429

| Parameter | Units | 92168735003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | 0.015 mg/L | 100 | 100 | 109 | 96.8 | 94 | 82 | 75-125 | 12 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035430 1035431

| Parameter | Units | 92169058005 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | 5.5J | 100 | 100 | 110 | 110 | 104 | 104 | 75-125 | 0 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16243 — Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E — Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92169058001, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

METHOD BLANK: 1035432 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058007, 92169058008, 92169058009, 92169058010, 92169058011

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 10.0 | 08/27/13 16:03 | |

LABORATORY CONTROL SAMPLE: 1035433

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Cyanide | ug/L | 100 | 98.1 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035434 — 1035435

| Parameter | Units | 92169058007 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 100 | 100 | 102 | 86.1 | 97 | 82 | 75-125 | 17 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035436 — 1035437

| Parameter | Units | 92168972001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | 0.0088 mg/L | 100 | 100 | 103 | 104 | 94 | 95 | 75-125 | 1 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16254 — Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E — Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92169058002, 92169058003

METHOD BLANK: 1035868 — Matrix: Water
Associated Lab Samples: 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 10.0 | 08/27/13 16:25 | |

LABORATORY CONTROL SAMPLE: 1035869

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Cyanide | ug/L | 100 | 102 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035870 1035871

| Parameter | Units | 92169042001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 100 | 100 | 27.6 | 27.1 | 23 | 23 | 75-125 | 2 | 20 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035872 1035873

| Parameter | Units | 92168567009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | 0.030 mg/L | 100 | 100 | 133 | 120 | 103 | 90 | 75-125 | 10 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16188 — Analysis Method: SM 5220D
QC Batch Method: SM 5220D — Analysis Description: 5220D COD
Associated Lab Samples: 92169058001, 92169058002, 92169058003

METHOD BLANK: 1032809 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | ug/L | ND | 25000 | 08/26/13 11:25 | |

LABORATORY CONTROL SAMPLE: 1032810

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | ug/L | 750000 | 753000 | 100 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1032811 — 1032812

| Parameter | Units | 92169025001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | ug/L | 226 mg/L | 750000 | 750000 | 886000 | 951000 | 88 | 97 | 75-125 | 7 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1032965 — 1032966

| Parameter | Units | 92168582005 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | ug/L | ND | 750000 | 750000 | 781000 | 795000 | 103 | 105 | 75-125 | 2 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

QC Batch: WETA/16266 — Analysis Method: SM 5310B
QC Batch Method: SM 5310B — Analysis Description: 5310B TOC
Associated Lab Samples: 92169058001, 92169058002, 92169058003

METHOD BLANK: 1036482 — Matrix: Water
Associated Lab Samples: 92169058001, 92169058002, 92169058003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Total Organic Carbon | ug/L | ND | 1000 | 08/28/13 18:31 | |

LABORATORY CONTROL SAMPLE: 1036483

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Total Organic Carbon | ug/L | 25000 | 24400 | 97 | 90-110 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1036484 1036485

| Parameter | Units | 92169028001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | ug/L | 9.5 mg/L | 25000 | 25000 | 32400 | 32900 | 92 | 93 | 75-125 | 1 | 20 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1036486 1036487

| Parameter | Units | 92169710002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | ug/L | 8.1 mg/L | 25000 | 25000 | 27800 | 28400 | 79 | 81 | 75-125 | 2 | 20 | |



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# QUALIFIERS

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

| | |
|---|---|
| PASI-A | Pace Analytical Services - Asheville |
| PASI-C | Pace Analytical Services - Charlotte |

## ANALYTE QUALIFIERS

| | |
|---|---|
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| R1 | RPD value was outside control limits. |



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **92169058001** | **MW-1R** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058002** | **MW-2** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058003** | **MW-8** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058004** | **MW-3** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058005** | **MW-4** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058006** | **MW-5** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058007** | **MW-6** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058008** | **MW-7** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058009** | **MW-9** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058010** | **MW-10** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058011** | **MW-11** | SM 3030C | MPRP/13995 | EPA 6010 | ICP/12739 |
| **92169058001** | **MW-1R** | EPA 7470 | MERP/5510 | EPA 7470 | MERC/5339 |
| **92169058002** | **MW-2** | EPA 7470 | MERP/5510 | EPA 7470 | MERC/5339 |
| **92169058003** | **MW-8** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058004** | **MW-3** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058005** | **MW-4** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058006** | **MW-5** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058007** | **MW-6** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058008** | **MW-7** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058009** | **MW-9** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058010** | **MW-10** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058011** | **MW-11** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169058001** | **MW-1R** | EPA 8260 | MSV/23960 | | |
| **92169058002** | **MW-2** | EPA 8260 | MSV/23960 | | |
| **92169058003** | **MW-8** | EPA 8260 | MSV/23960 | | |
| **92169058004** | **MW-3** | EPA 8260 | MSV/23960 | | |
| **92169058005** | **MW-4** | EPA 8260 | MSV/23960 | | |
| **92169058006** | **MW-5** | EPA 8260 | MSV/23960 | | |
| **92169058007** | **MW-6** | EPA 8260 | MSV/23960 | | |
| **92169058008** | **MW-7** | EPA 8260 | MSV/23960 | | |
| **92169058009** | **MW-9** | EPA 8260 | MSV/23960 | | |
| **92169058010** | **MW-10** | EPA 8260 | MSV/23960 | | |
| **92169058011** | **MW-11** | EPA 8260 | MSV/23960 | | |
| **92169058001** | **MW-1R** | SM 2320B | WET/26729 | | |
| **92169058002** | **MW-2** | SM 2320B | WET/26729 | | |
| **92169058003** | **MW-8** | SM 2320B | WET/26729 | | |
| **92169058001** | **MW-1R** | SM 4500-S2D | WET/26745 | | |
| **92169058002** | **MW-2** | SM 4500-S2D | WET/26745 | | |
| **92169058003** | **MW-8** | SM 4500-S2D | WET/26745 | | |
| **92169058004** | **MW-3** | SM 4500-S2D | WET/26745 | | |
| **92169058005** | **MW-4** | SM 4500-S2D | WET/26745 | | |
| **92169058006** | **MW-5** | SM 4500-S2D | WET/26745 | | |
| **92169058007** | **MW-6** | SM 4500-S2D | WET/26745 | | |
| **92169058008** | **MW-7** | SM 4500-S2D | WET/26745 | | |
| **92169058009** | **MW-9** | SM 4500-S2D | WET/26745 | | |
| **92169058010** | **MW-10** | SM 4500-S2D | WET/26745 | | |



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**Pace Analytical Services, Inc.**
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**Pace Analytical Services, Inc.**
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Wayne Closed MSWLF (Dudley)
Pace Project No.: 92169058

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **92169058011** | **MW-11** | SM 4500-S2D | WET/26745 | | |
| **92169058001** | **MW-1R** | EPA 300.0 | WETA/16279 | | |
| **92169058002** | **MW-2** | EPA 300.0 | WETA/16279 | | |
| **92169058003** | **MW-8** | EPA 300.0 | WETA/16279 | | |
| **92169058001** | **MW-1R** | EPA 353.2 | WETA/16144 | | |
| **92169058002** | **MW-2** | EPA 353.2 | WETA/16144 | | |
| **92169058003** | **MW-8** | EPA 353.2 | WETA/16144 | | |
| **92169058001** | **MW-1R** | SM 4500-Cl-E | WETA/16284 | | |
| **92169058002** | **MW-2** | SM 4500-Cl-E | WETA/16284 | | |
| **92169058003** | **MW-8** | SM 4500-Cl-E | WETA/16284 | | |
| **92169058001** | **MW-1R** | SM 4500-CN-E | WETA/16243 | | |
| **92169058002** | **MW-2** | SM 4500-CN-E | WETA/16254 | | |
| **92169058003** | **MW-8** | SM 4500-CN-E | WETA/16254 | | |
| **92169058004** | **MW-3** | SM 4500-CN-E | WETA/16242 | | |
| **92169058005** | **MW-4** | SM 4500-CN-E | WETA/16242 | | |
| **92169058006** | **MW-5** | SM 4500-CN-E | WETA/16242 | | |
| **92169058007** | **MW-6** | SM 4500-CN-E | WETA/16243 | | |
| **92169058008** | **MW-7** | SM 4500-CN-E | WETA/16243 | | |
| **92169058009** | **MW-9** | SM 4500-CN-E | WETA/16243 | | |
| **92169058010** | **MW-10** | SM 4500-CN-E | WETA/16243 | | |
| **92169058011** | **MW-11** | SM 4500-CN-E | WETA/16243 | | |
| **92169058001** | **MW-1R** | SM 5220D | WETA/16188 | | |
| **92169058002** | **MW-2** | SM 5220D | WETA/16188 | | |
| **92169058003** | **MW-8** | SM 5220D | WETA/16188 | | |
| **92169058001** | **MW-1R** | SM 5310B | WETA/16266 | | |
| **92169058002** | **MW-2** | SM 5310B | WETA/16266 | | |
| **92169058003** | **MW-8** | SM 5310B | WETA/16266 | | |



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| Pace Analytical | Document Name: **Sample Condition Upon Receipt (SCUR)** | Document Revised: June 12, 2013 Page 1 of 2 |
|---|---|---|
| | Document Number: **F-CHR-CS-03-rev.11** | Issuing Authority: Pace Huntersville Quality Office |

Client Name: Municipal

**Where Received:** ☑ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other_____

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

**Thermometer Used: IR Gun T1102 T1301** **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

**Temp Correction Factor** **T1102**: No Correction **T1301**: No Correction

**Corrected Cooler Temp.:** 2.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

| Optional |
|---|
| Proj. Due Date: |
| Proj. Name: |

**Date and Initials of person examining contents:** [illegible] 8/15/13

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☑Yes ☐No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☑No ☐N/A | 11. |
| Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:_____ | ☐Yes ☑No ☐N/A | 12. * No dates / times on bottles * Rec'd Diff. matrix for MW1 & not on COC |
| All containers needing preservation have been checked. | ☑Yes ☐No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☑Yes ☐No ☐N/A 8/15/13 | pH matrix = 7 for MW5 pH sulfide = 7 for MW11 |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | |
| Samples checked for dechlorination: | ☑Yes ☐No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased):_____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**SCURF Review:** JG **Date:** 8/15/13

**SRF Review:** JG **Date:** 8/16/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

**WO#: 92169058**

92169058

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

**Section A**
**Required Client Information:**

| | |
|---|---|
| Company: | Municipal Engineering Services |
| Address: | P.O. Box 97 |
| | Garner, NC 27529 |
| Email To: | jpfohl@mesco.com |
| Phone: | 919-772-5393 Fax |
| Requested Due Date/TAT: | 10 Day (Default) |

**Section B**
**Required Project Information:**

| | |
|---|---|
| Report To: | Jonathan Pfohl |
| Copy To: | |
| Purchase Order No. | |
| Client Project ID: | Wayne Closed MSWLF (Dudley) |
| Container Order Number: | |

**Section C**
**Invoice Information:**

| | |
|---|---|
| Attention: | Municipal Engineering Services |
| Company Name: | |
| Address: | |
| Pace Quote Reference: | |
| Pace Project Manager: | Kevin Godwin |
| Pace Profile #: | 2103-6 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| North Carolina |

Requested Analysis Filtered (Y/N)

| ITEM# | SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique) | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | VOCs- App 2 | Metals-App 2 (3030C Prep) | Total Cyanide | Sulfide | Alkalinity | Sulfate | Chloride | TOC | COD | Iron (3030C Prep) | Nitrate | 92169058 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | N | Y | N | N | N | N | N | N | Y | N | | |
| 1 | MW-1R | WT | G | | | 8/14/13 | 9:55 | | | | | | | | | | | | x | x | x | x | x | x | x | x | x | x | | CW1 |
| 2 | MW-2 | WT | G | | | 8/14/13 | 11:25 | | | | | | | | | | | | x | x | x | x | x | x | x | x | x | x | | CW2 |
| 3 | MW-3 | WT | G | | | 8/13/13 | 2:00 | | | | | | | | | | | | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW4 |
| 4 | MW-4 | WT | G | | | 8/13/13 | 10:40 | | | | | | | | | | | | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW5 |
| 5 | MW-5 | WT | G | | | 8/13/13 | 11:35 | | | | | | | | | | | | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | x | | CW6 |
| 6 | MW-6 | WT | G | | | ↓ | 10:45 | | | | | | | | | | | | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW7 |
| 7 | MW-7 | WT | G | | | ↓ | 2:40 | | | | | | | | | | | | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW8 |
| 8 | MW-8 | WT | G | | | 8/14/13 | 10:35 | | | | | | | | | | | | x | x | x | x | x | x | x | x | x | x | | CW3 |
| 9 | MW-9 | WT | G | | | 8/13/13 | 3:10 | | | | | | | | | | | | x | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW9 |
| 10 | MW-10 | WT | G | | | ↓ | 4:50 | | | | | | | | | | | | x | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW10 |
| 11 | MW-11 | WT | G | | | ↓ | 12:00 | | | | | | | | | | | | x | x | x | x | x | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | | CW11 |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | MESCO | 8/15/13 | 8:00AM | [signature] | 8-15-13 | 9:15 | |
| | Left @ office | | | | | | |
| | [signature] | 8/15/13 | 16:10 | [signature] | 8/15/13 | 16:10 | |

| SAMPLER NAME AND SIGNATURE | |
|---|---|
| PRINT Name of SAMPLER: | Jonathan Pfohl |
| SIGNATURE of SAMPLER: | [signature] DATE Signed: 8/15/13 |

| TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|
| 2.9 | [illegible] | [illegible] | [illegible] |

16:10

**Environmental Conservation Laboratories, Inc.**
**102-A Woodwinds Industrial Court**
**Cary NC, 27511**
**Phone: 919.467.3090 FAX: 919.467.3515**
**www.encolabs.com**

Thursday, August 29, 2013

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

**RE: Laboratory Results for**
**Project Number: [none], Project Name/Desc: Wayne Closed MSWLF (Dudley)**
**ENCO Workorder(s): C309858**

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, August 15, 2013.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 79.

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## SAMPLE SUMMARY/LABORATORY CHRONICLE

**Client ID: MW-1R** | **Lab ID: C309858-01** | **Sampled: 08/14/13 09:55** | **Received: 08/15/13 08:30**

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/21/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 15:22 |
| EPA 8082A | 08/14/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 15:22 |
| EPA 8151A | 08/21/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 20:56 |
| EPA 8270D | 08/21/13 | 09/28/13 | 08/19/13 | 17:49 | 8/28/2013 00:14 |

**Client ID: MW-2** | **Lab ID: C309858-02** | **Sampled: 08/14/13 11:25** | **Received: 08/15/13 08:30**

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/21/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 15:35 |
| EPA 8082A | 08/14/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 15:35 |
| EPA 8151A | 08/21/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 21:21 |
| EPA 8270D | 08/21/13 | 09/28/13 | 08/19/13 | 17:49 | 8/28/2013 00:46 |

**Client ID: MW-3** | **Lab ID: C309858-03** | **Sampled: 08/13/13 14:00** | **Received: 08/15/13 08:30**

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 15:48 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 15:48 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 21:46 |
| EPA 8270D | 08/20/13 | 09/28/13 | 08/19/13 | 17:49 | 8/28/2013 01:18 |

**Client ID: MW-4** | **Lab ID: C309858-04** | **Sampled: 08/13/13 10:10** | **Received: 08/15/13 08:30**

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 16:01 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 16:01 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 22:37 |
| EPA 8270D | 08/20/13 | 09/28/13 | 08/19/13 | 17:49 | 8/28/2013 01:50 |

**Client ID: MW-5** | **Lab ID: C309858-05** | **Sampled: 08/13/13 11:25** | **Received: 08/15/13 08:30**

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 16:15 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 16:15 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 23:03 |
| EPA 8270D | 08/20/13 | 09/28/13 | 08/19/13 | 17:49 | 8/28/2013 02:23 |

**Client ID: MW-6** | **Lab ID: C309858-06** | **Sampled: 08/13/13 10:45** | **Received: 08/15/13 08:30**

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 16:42 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 16:42 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 23:28 |
| EPA 8270D | 08/20/13 | 09/29/13 | 08/20/13 | 12:00 | 8/28/2013 02:55 |

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| Client ID: MW-7 | Lab ID: C309858-07 | Sampled: 08/13/13 14:40 | Received: 08/15/13 08:30 |
|---|---|---|---|

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 17:00 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 17:00 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/21/2013 23:53 |
| EPA 8270D | 08/20/13 | 09/29/13 | 08/20/13 | 12:00 | 8/28/2013 03:27 |

| Client ID: MW-8 | Lab ID: C309858-08 | Sampled: 08/14/13 10:35 | Received: 08/15/13 08:30 |
|---|---|---|---|

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/21/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 17:20 |
| EPA 8082A | 08/14/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 17:20 |
| EPA 8151A | 08/21/13 | 09/28/13 | 08/19/13 | 14:30 | 8/22/2013 00:19 |
| EPA 8270D | 08/21/13 | 09/29/13 | 08/20/13 | 12:00 | 8/28/2013 03:59 |

| Client ID: MW-9 | Lab ID: C309858-09 | Sampled: 08/13/13 15:10 | Received: 08/15/13 08:30 |
|---|---|---|---|

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 17:34 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 17:34 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/22/2013 00:44 |
| EPA 8270D | 08/20/13 | 09/29/13 | 08/20/13 | 12:00 | 8/28/2013 04:31 |

| Client ID: MW-10 | Lab ID: C309858-10 | Sampled: 08/13/13 16:50 | Received: 08/15/13 08:30 |
|---|---|---|---|

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 17:47 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 17:47 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/22/2013 01:09 |
| EPA 8270D | 08/20/13 | 09/29/13 | 08/20/13 | 12:00 | 8/28/2013 05:03 |

| Client ID: MW-11 | Lab ID: C309858-11 | Sampled: 08/13/13 12:00 | Received: 08/15/13 08:30 |
|---|---|---|---|

| Parameter | Hold Date/Time(s) | | Prep Date/Time(s) | | Analysis Date/Time(s) |
|---|---|---|---|---|---|
| EPA 8081B | 08/20/13 | 09/29/13 | 08/20/13 | 14:34 | 8/28/2013 18:00 |
| EPA 8082A | 08/13/14 | 09/29/13 | 08/20/13 | 14:37 | 8/28/2013 18:00 |
| EPA 8151A | 08/20/13 | 09/28/13 | 08/19/13 | 14:30 | 8/22/2013 01:35 |
| EPA 8270D | 08/20/13 | 09/29/13 | 08/20/13 | 12:00 | 8/28/2013 05:36 |

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## NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

**Client ID:** MW-8 **Lab ID:** C309858-08

| Analyte | Results | Flag | DF | MDL | MRL | NC SWSL | Units | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Di-n-butylphthalate | 1.6 | J | 1 | 1.5 | 10 | 10 | ug/L | EPA 8270D | |

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## ANALYTICAL RESULTS

**Description:** MW-1R
**Matrix:** Ground Water
**Project:** Wayne Closed MSWLF (Dudley)

**Lab Sample ID:** C309858-01
**Sampled:** 08/14/13 09:55
**Sampled By:** Jonathan Pfohl

**Received:** 08/15/13 08:30
**Work Order:** C309858

### Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 00:14 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 00:14 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |

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**Description:** MW-1R | **Lab Sample ID:** C309858-01 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 09:55 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 00:14 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |

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**Description:** MW-1R
**Matrix:** Ground Water
**Project:** Wayne Closed MSWLF (Dudley)

**Lab Sample ID:** C309858-01
**Sampled:** 08/14/13 09:55
**Sampled By:** Jonathan Pfohl

**Received:** 08/15/13 08:30
**Work Order:** C309858

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:14 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 00:14 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *95* | *1* | *100* | *95 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 00:14* | *DFM* | |
| *2-Fluorobiphenyl* | *43* | *1* | *50.0* | *86 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 00:14* | *DFM* | |
| *2-Fluorophenol* | *59* | *1* | *100* | *59 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 00:14* | *DFM* | |
| *Nitrobenzene-d5* | *41* | *1* | *50.0* | *81 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 00:14* | *DFM* | |
| *Phenol-d5* | *44* | *1* | *100* | *44 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 00:14* | *DFM* | |
| *Terphenyl-d14* | *50* | *1* | *50.0* | *100 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 00:14* | *DFM* | |

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**Description:** MW-1R
**Matrix:** Ground Water
**Project:** Wayne Closed MSWLF (Dudley)

**Lab Sample ID:** C309858-01
**Sampled:** 08/14/13 09:55
**Sampled By:** Jonathan Pfohl

**Received:** 08/15/13 08:30
**Work Order:** C309858

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 15:22 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 15:22 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 15:22 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.82* | *1* | *1.00* | *82 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 15:22* | *MSZ* | |
| *Decachlorobiphenyl* | *0.82* | *1* | *1.00* | *82 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 15:22* | *MSZ* | |

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**Description:** MW-1R
**Matrix:** Ground Water
**Project:** Wayne Closed MSWLF (Dudley)

**Lab Sample ID:** C309858-01
**Sampled:** 08/14/13 09:55
**Sampled By:** Jonathan Pfohl

**Received:** 08/15/13 08:30
**Work Order:** C309858

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 15:22 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 15:22 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 15:22 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 15:22 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 15:22 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 15:22 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.82* | *1* | *1.00* | *82 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 15:22* | *MSZ* | |
| *Decachlorobiphenyl* | *0.82* | *1* | *1.00* | *82 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 15:22* | *MSZ* | |

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**Description:** MW-1R
**Matrix:** Ground Water
**Project:** Wayne Closed MSWLF (Dudley)

**Lab Sample ID:** C309858-01
**Sampled:** 08/14/13 09:55
**Sampled By:** Jonathan Pfohl

**Received:** 08/15/13 08:30
**Work Order:** C309858

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 20:56 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 20:56 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 20:56 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 20:56 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 20:56 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *1.9* | *1* | *2.00* | *95 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 20:56* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-2 | **Lab Sample ID:** C309858-02 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 00:46 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 00:46 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |

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**Description:** MW-2 | **Lab Sample ID:** C309858-02 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 00:46 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |

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**Description:** MW-2 | **Lab Sample ID:** C309858-02 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 00:46 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 00:46 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *100* | *1* | *100* | *103 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 00:46* | *DFM* | |
| *2-Fluorobiphenyl* | *45* | *1* | *50.0* | *91 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 00:46* | *DFM* | |
| *2-Fluorophenol* | *65* | *1* | *100* | *65 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 00:46* | *DFM* | |
| *Nitrobenzene-d5* | *42* | *1* | *50.0* | *84 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 00:46* | *DFM* | |
| *Phenol-d5* | *49* | *1* | *100* | *49 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 00:46* | *DFM* | |
| *Terphenyl-d14* | *49* | *1* | *50.0* | *98 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 00:46* | *DFM* | |

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**Description:** MW-2 | **Lab Sample ID:** C309858-02 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 15:35 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 15:35 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 15:35 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.85* | *1* | *1.00* | *85 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 15:35* | *MSZ* | |
| *Decachlorobiphenyl* | *0.81* | *1* | *1.00* | *81 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 15:35* | *MSZ* | |

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**Description:** MW-2 | **Lab Sample ID:** C309858-02 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 15:35 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 15:35 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 15:35 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 15:35 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 15:35 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 15:35 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.85* | *1* | *1.00* | *85 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 15:35* | *MSZ* | |
| *Decachlorobiphenyl* | *0.81* | *1* | *1.00* | *81 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 15:35* | *MSZ* | |

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**Description:** MW-2 | **Lab Sample ID:** C309858-02 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 21:21 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 21:21 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 21:21 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 21:21 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 21:21 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.2* | *1* | *2.00* | *109 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 21:21* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-3 | **Lab Sample ID:** C309858-03 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 01:18 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 01:18 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |

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**Description:** MW-3 | **Lab Sample ID:** C309858-03 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 01:18 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |

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**Description:** MW-3 | **Lab Sample ID:** C309858-03 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:18 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 01:18 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *97* | *1* | *100* | *97 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 01:18* | *DFM* | |
| *2-Fluorobiphenyl* | *45* | *1* | *50.0* | *90 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 01:18* | *DFM* | |
| *2-Fluorophenol* | *64* | *1* | *100* | *64 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 01:18* | *DFM* | |
| *Nitrobenzene-d5* | *43* | *1* | *50.0* | *86 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 01:18* | *DFM* | |
| *Phenol-d5* | *48* | *1* | *100* | *48 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 01:18* | *DFM* | |
| *Terphenyl-d14* | *52* | *1* | *50.0* | *103 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 01:18* | *DFM* | |

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**Description:** MW-3 | **Lab Sample ID:** C309858-03 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 15:48 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 15:48 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 15:48 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.84* | *1* | *1.00* | *84 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 15:48* | *MSZ* | |
| *Decachlorobiphenyl* | *0.95* | *1* | *1.00* | *95 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 15:48* | *MSZ* | |

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**Description:** MW-3 | **Lab Sample ID:** C309858-03 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 15:48 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 15:48 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 15:48 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 15:48 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 15:48 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 15:48 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.84* | *1* | *1.00* | *84 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 15:48* | *MSZ* | |
| *Decachlorobiphenyl* | *0.95* | *1* | *1.00* | *95 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 15:48* | *MSZ* | |

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**Description:** MW-3 | **Lab Sample ID:** C309858-03 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 21:46 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 21:46 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 21:46 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 21:46 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 21:46 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.1* | *1* | *2.00* | *103 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 21:46* | *RGG* | |

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**Description:** MW-4 | **Lab Sample ID:** C309858-04 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 01:50 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 01:50 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |

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**Description:** MW-4 | **Lab Sample ID:** C309858-04 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 01:50 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |

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**Description:** MW-4 | **Lab Sample ID:** C309858-04 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 01:50 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 01:50 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *92* | *1* | *100* | *92 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 01:50* | *DFM* | |
| *2-Fluorobiphenyl* | *43* | *1* | *50.0* | *87 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 01:50* | *DFM* | |
| *2-Fluorophenol* | *59* | *1* | *100* | *59 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 01:50* | *DFM* | |
| *Nitrobenzene-d5* | *40* | *1* | *50.0* | *79 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 01:50* | *DFM* | |
| *Phenol-d5* | *46* | *1* | *100* | *46 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 01:50* | *DFM* | |
| *Terphenyl-d14* | *50* | *1* | *50.0* | *99 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 01:50* | *DFM* | |

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**Description:** MW-4 | **Lab Sample ID:** C309858-04 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 16:01 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 16:01 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 16:01 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.78* | *1* | *1.00* | *78 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 16:01* | *MSZ* | |
| *Decachlorobiphenyl* | *0.87* | *1* | *1.00* | *87 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 16:01* | *MSZ* | |

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**Description:** MW-4 | **Lab Sample ID:** C309858-04 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 16:01 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 16:01 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 16:01 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 16:01 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 16:01 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 16:01 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.78* | *1* | *1.00* | *78 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 16:01* | *MSZ* | |
| *Decachlorobiphenyl* | *0.87* | *1* | *1.00* | *87 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 16:01* | *MSZ* | |

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**Description:** MW-4 | **Lab Sample ID:** C309858-04 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 22:37 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 22:37 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 22:37 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 22:37 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 22:37 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.0* | *1* | *2.00* | *98 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 22:37* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-5 | **Lab Sample ID:** C309858-05 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 02:23 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 02:23 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |

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**Description:** MW-5 | **Lab Sample ID:** C309858-05 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 02:23 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |

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**Description:** MW-5 | **Lab Sample ID:** C309858-05 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:23 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 02:23 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *97* | *1* | *100* | *97 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 02:23* | *DFM* | |
| *2-Fluorobiphenyl* | *46* | *1* | *50.0* | *92 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 02:23* | *DFM* | |
| *2-Fluorophenol* | *65* | *1* | *100* | *65 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 02:23* | *DFM* | |
| *Nitrobenzene-d5* | *43* | *1* | *50.0* | *86 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 02:23* | *DFM* | |
| *Phenol-d5* | *50* | *1* | *100* | *50 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 02:23* | *DFM* | |
| *Terphenyl-d14* | *53* | *1* | *50.0* | *105 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 02:23* | *DFM* | |

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**Description:** MW-5 | **Lab Sample ID:** C309858-05 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 16:15 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 16:15 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 16:15 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.74* | *1* | *1.00* | *74 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 16:15* | *MSZ* | |
| *Decachlorobiphenyl* | *0.84* | *1* | *1.00* | *84 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 16:15* | *MSZ* | |

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**Description:** MW-5 | **Lab Sample ID:** C309858-05 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 16:15 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 16:15 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 16:15 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 16:15 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 16:15 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 16:15 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.74* | *1* | *1.00* | *74 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 16:15* | *MSZ* | |
| *Decachlorobiphenyl* | *0.84* | *1* | *1.00* | *84 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 16:15* | *MSZ* | |

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**Description:** MW-5 | **Lab Sample ID:** C309858-05 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 11:25 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 23:03 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 23:03 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 23:03 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 23:03 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 23:03 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.1* | *1* | *2.00* | *106 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 23:03* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-6 | **Lab Sample ID:** C309858-06 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:45 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 02:55 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 02:55 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |

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**Description:** MW-6 | **Lab Sample ID:** C309858-06 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:45 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 02:55 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |

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**Description:** MW-6 | **Lab Sample ID:** C309858-06 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:45 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 02:55 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 02:55 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *94* | *1* | *100* | *94 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 02:55* | *DFM* | |
| *2-Fluorobiphenyl* | *44* | *1* | *50.0* | *88 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 02:55* | *DFM* | |
| *2-Fluorophenol* | *61* | *1* | *100* | *61 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 02:55* | *DFM* | |
| *Nitrobenzene-d5* | *40* | *1* | *50.0* | *80 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 02:55* | *DFM* | |
| *Phenol-d5* | *49* | *1* | *100* | *49 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 02:55* | *DFM* | |
| *Terphenyl-d14* | *50* | *1* | *50.0* | *99 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 02:55* | *DFM* | |

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**Description:** MW-6 | **Lab Sample ID:** C309858-06 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:45 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 16:42 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 16:42 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 16:42 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.79* | *1* | *1.00* | *79 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 16:42* | *MSZ* | |
| *Decachlorobiphenyl* | *0.93* | *1* | *1.00* | *93 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 16:42* | *MSZ* | |

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**Description:** MW-6 | **Lab Sample ID:** C309858-06 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:45 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 16:42 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 16:42 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 16:42 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 16:42 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 16:42 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 16:42 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.79* | *1* | *1.00* | *79 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 16:42* | *MSZ* | |
| *Decachlorobiphenyl* | *0.93* | *1* | *1.00* | *93 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 16:42* | *MSZ* | |

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**Description:** MW-6 | **Lab Sample ID:** C309858-06 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 10:45 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 23:28 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 23:28 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 23:28 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 23:28 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 23:28 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.1* | *1* | *2.00* | *106 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 23:28* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-7 | **Lab Sample ID:** C309858-07 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:40 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 03:27 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 03:27 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |

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**Description:** MW-7 | **Lab Sample ID:** C309858-07 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:40 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 03:27 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |

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**Description:** MW-7 | **Lab Sample ID:** C309858-07 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:40 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:27 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 03:27 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *95* | *1* | *100* | *95 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 03:27* | *DFM* | |
| *2-Fluorobiphenyl* | *44* | *1* | *50.0* | *88 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 03:27* | *DFM* | |
| *2-Fluorophenol* | *61* | *1* | *100* | *61 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 03:27* | *DFM* | |
| *Nitrobenzene-d5* | *41* | *1* | *50.0* | *81 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 03:27* | *DFM* | |
| *Phenol-d5* | *48* | *1* | *100* | *48 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 03:27* | *DFM* | |
| *Terphenyl-d14* | *50* | *1* | *50.0* | *100 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 03:27* | *DFM* | |

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**Description:** MW-7 | **Lab Sample ID:** C309858-07 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:40 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 17:00 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 17:00 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 17:00 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.81* | *1* | *1.00* | *81 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 17:00* | *MSZ* | |
| *Decachlorobiphenyl* | *0.84* | *1* | *1.00* | *84 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 17:00* | *MSZ* | |

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**Description:** MW-7 | **Lab Sample ID:** C309858-07 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:40 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 17:00 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 17:00 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 17:00 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 17:00 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 17:00 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 17:00 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.81* | *1* | *1.00* | *81 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 17:00* | *MSZ* | |
| *Decachlorobiphenyl* | *0.84* | *1* | *1.00* | *84 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 17:00* | *MSZ* | |

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**Description:** MW-7 | **Lab Sample ID:** C309858-07 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 14:40 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/21/13 23:53 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/21/13 23:53 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/21/13 23:53 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/21/13 23:53 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/21/13 23:53 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *1.9* | *1* | *2.00* | *94 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/21/13 23:53* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-8 | **Lab Sample ID:** C309858-08 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 10:35 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 03:59 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 03:59 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |

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**Description:** MW-8 | **Lab Sample ID:** C309858-08 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 10:35 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| **Di-n-butylphthalate [84-74-2] ^** | **1.6** | J | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 03:59 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |

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**Description:** MW-8 | **Lab Sample ID:** C309858-08 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 10:35 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 03:59 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 03:59 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *90* | *1* | *100* | *90 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 03:59* | *DFM* | |
| *2-Fluorobiphenyl* | *43* | *1* | *50.0* | *86 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 03:59* | *DFM* | |
| *2-Fluorophenol* | *58* | *1* | *100* | *58 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 03:59* | *DFM* | |
| *Nitrobenzene-d5* | *39* | *1* | *50.0* | *77 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 03:59* | *DFM* | |
| *Phenol-d5* | *48* | *1* | *100* | *48 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 03:59* | *DFM* | |
| *Terphenyl-d14* | *43* | *1* | *50.0* | *85 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 03:59* | *DFM* | |

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**Description:** MW-8 | **Lab Sample ID:** C309858-08 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 10:35 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 17:20 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 17:20 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 17:20 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.79* | *1* | *1.00* | *79 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 17:20* | *MSZ* | |
| *Decachlorobiphenyl* | *0.88* | *1* | *1.00* | *88 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 17:20* | *MSZ* | |

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**Description:** MW-8 | **Lab Sample ID:** C309858-08 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 10:35 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 17:20 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 17:20 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 17:20 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 17:20 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 17:20 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 17:20 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.79* | *1* | *1.00* | *79 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 17:20* | *MSZ* | |
| *Decachlorobiphenyl* | *0.88* | *1* | *1.00* | *88 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 17:20* | *MSZ* | |

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**Description:** MW-8 | **Lab Sample ID:** C309858-08 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/14/13 10:35 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/22/13 00:19 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/22/13 00:19 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/22/13 00:19 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/22/13 00:19 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/22/13 00:19 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *1.9* | *1* | *2.00* | *96 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/22/13 00:19* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-9 | **Lab Sample ID:** C309858-09 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 15:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 04:31 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 04:31 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |

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**Description:** MW-9 | **Lab Sample ID:** C309858-09 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 15:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 04:31 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |

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**Description:** MW-9 | **Lab Sample ID:** C309858-09 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 15:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 04:31 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 04:31 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *95* | *1* | *100* | *95 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 04:31* | *DFM* | |
| *2-Fluorobiphenyl* | *44* | *1* | *50.0* | *89 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 04:31* | *DFM* | |
| *2-Fluorophenol* | *56* | *1* | *100* | *56 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 04:31* | *DFM* | |
| *Nitrobenzene-d5* | *40* | *1* | *50.0* | *79 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 04:31* | *DFM* | |
| *Phenol-d5* | *43* | *1* | *100* | *43 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 04:31* | *DFM* | |
| *Terphenyl-d14* | *50* | *1* | *50.0* | *100 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 04:31* | *DFM* | |

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**Description:** MW-9 | **Lab Sample ID:** C309858-09 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 15:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 17:34 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 17:34 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 17:34 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.78* | *1* | *1.00* | *78 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 17:34* | *MSZ* | |
| *Decachlorobiphenyl* | *0.88* | *1* | *1.00* | *88 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 17:34* | *MSZ* | |

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**Description:** MW-9 | **Lab Sample ID:** C309858-09 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 15:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 17:34 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 17:34 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 17:34 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 17:34 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 17:34 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 17:34 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.78* | *1* | *1.00* | *78 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 17:34* | *MSZ* | |
| *Decachlorobiphenyl* | *0.88* | *1* | *1.00* | *88 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 17:34* | *MSZ* | |

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**Description:** MW-9 | **Lab Sample ID:** C309858-09 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 15:10 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/22/13 00:44 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/22/13 00:44 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/22/13 00:44 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/22/13 00:44 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/22/13 00:44 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *1.9* | *1* | *2.00* | *95 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/22/13 00:44* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-10 | **Lab Sample ID:** C309858-10 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 16:50 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 05:03 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 05:03 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |

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**Description:** MW-10 | **Lab Sample ID:** C309858-10 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 16:50 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 05:03 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |

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**Description:** MW-10 | **Lab Sample ID:** C309858-10 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 16:50 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:03 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 05:03 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *84* | *1* | *100* | *84 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 05:03* | *DFM* | |
| *2-Fluorobiphenyl* | *40* | *1* | *50.0* | *80 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 05:03* | *DFM* | |
| *2-Fluorophenol* | *50* | *1* | *100* | *50 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 05:03* | *DFM* | |
| *Nitrobenzene-d5* | *35* | *1* | *50.0* | *70 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 05:03* | *DFM* | |
| *Phenol-d5* | *39* | *1* | *100* | *39 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 05:03* | *DFM* | |
| *Terphenyl-d14* | *45* | *1* | *50.0* | *90 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 05:03* | *DFM* | |

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**Description:** MW-10 | **Lab Sample ID:** C309858-10 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 16:50 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 17:47 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 17:47 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 17:47 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.78* | *1* | *1.00* | *78 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 17:47* | *MSZ* | |
| *Decachlorobiphenyl* | *0.93* | *1* | *1.00* | *93 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 17:47* | *MSZ* | |

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**Description:** MW-10 | **Lab Sample ID:** C309858-10 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 16:50 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 17:47 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 17:47 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 17:47 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 17:47 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 17:47 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 17:47 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.78* | *1* | *1.00* | *78 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 17:47* | *MSZ* | |
| *Decachlorobiphenyl* | *0.93* | *1* | *1.00* | *93 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 17:47* | *MSZ* | |

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**Description:** MW-10 | **Lab Sample ID:** C309858-10 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 16:50 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/22/13 01:09 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/22/13 01:09 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/22/13 01:09 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/22/13 01:09 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/22/13 01:09 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.0* | *1* | *2.00* | *101 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/22/13 01:09* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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**Description:** MW-11 | **Lab Sample ID:** C309858-11 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 12:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene [95-94-3] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 1,3,5-Trinitrobenzene [99-35-4] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 1,3-Dinitrobenzene [99-65-0] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 1,4-Naphthoquinone [130-15-4] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 1,4-Phenylenediamine [106-50-3] ^ | 4.0 | U | ug/L | 1 | 4.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | QV-01 |
| 1-Naphthylamine [134-32-7] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,3,4,6-Tetrachlorophenol [58-90-2] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,4,5-Trichlorophenol [95-95-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,4,6-Trichlorophenol [88-06-2] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,4-Dichlorophenol [120-83-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,4-Dimethylphenol [105-67-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,4-Dinitrophenol [51-28-5] ^ | 2.6 | U | ug/L | 1 | 2.6 | 10 | 50 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,4-Dinitrotoluene [121-14-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,6-Dichlorophenol [87-65-0] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2,6-Dinitrotoluene [606-20-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Acetylaminofluorene [53-96-3] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Chloronaphthalene [91-58-7] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Chlorophenol [95-57-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Methyl-4,6-dinitrophenol [534-52-1] ^ | 2.9 | U | ug/L | 1 | 2.9 | 10 | 50 | EPA 8270D | 08/28/13 05:36 | DFM | QV-01 |
| 2-Methylnaphthalene [91-57-6] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Methylphenol [95-48-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Naphthylamine [91-59-8] ^ | 3.0 | U | ug/L | 1 | 3.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Nitroaniline [88-74-4] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 50 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 2-Nitrophenol [88-75-5] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 3 & 4-Methylphenol [108-39-4/106-44-5] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 3,3'-Dichlorobenzidine [91-94-1] ^ | 3.3 | U | ug/L | 1 | 3.3 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 3,3'-Dimethylbenzidine [119-93-7] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 3-Methylcholanthrene [56-49-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 3-Nitroaniline [99-09-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 50 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Aminobiphenyl [92-67-1] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Bromophenyl-phenylether [101-55-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Chloro-3-methylphenol [59-50-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Chloroaniline [106-47-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Chlorophenyl-phenylether [7005-72-3] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Nitroaniline [100-01-6] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 4-Nitrophenol [100-02-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 50 | EPA 8270D | 08/28/13 05:36 | DFM | |
| 5-Nitro-o-toluidine [99-55-8] ^ | 3.2 | U | ug/L | 1 | 3.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | QV-01 |
| 7,12-Dimethylbenz(a)anthracene [57-97-6] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Acenaphthene [83-32-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Acenaphthylene [208-96-8] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Acetophenone [98-86-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Anthracene [120-12-7] ^ | 1.6 | U | ug/L | 1 | 1.6 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Benzo(a)anthracene [56-55-3] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Benzo(a)pyrene [50-32-8] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Benzo(b)fluoranthene [205-99-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |

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**Description:** MW-11 | **Lab Sample ID:** C309858-11 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 12:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo(g,h,i)perylene [191-24-2] ^ | 2.4 | U | ug/L | 1 | 2.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Benzo(k)fluoranthene [207-08-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Benzyl alcohol [100-51-6] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Bis(2-chloroethoxy)methane [111-91-1] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Bis(2-chloroethyl)ether [111-44-4] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Bis(2-chloroisopropyl)ether [108-60-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Bis(2-ethylhexyl)phthalate [117-81-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 5.0 | 15 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Butylbenzylphthalate [85-68-7] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Chlorobenzilate [510-15-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Chrysene [218-01-9] ^ | 2.0 | U | ug/L | 1 | 2.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Diallate [2303-16-4] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | QV-02 |
| Dibenzo(a,h)anthracene [53-70-3] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Dibenzofuran [132-64-9] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Diethylphthalate [84-66-2] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Dimethoate [60-51-5] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | QV-02 |
| Dimethylphthalate [131-11-3] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Di-n-butylphthalate [84-74-2] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Di-n-octylphthalate [117-84-0] ^ | 3.1 | U | ug/L | 1 | 3.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Disulfoton [298-04-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Ethyl methanesulfonate [62-50-0] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Famphur [52-85-7] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Fluoranthene [206-44-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Fluorene [86-73-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Hexachlorobenzene [118-74-1] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Hexachlorobutadiene [87-68-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Hexachlorocyclopentadiene [77-47-4] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Hexachloroethane [67-72-1] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Hexachloropropene [1888-71-7] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Indeno(1,2,3-cd)pyrene [193-39-5] ^ | 2.2 | U | ug/L | 1 | 2.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Isodrin [465-73-6] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Isophorone [78-59-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Isosafrole [120-58-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Kepone [143-50-0] ^ | 7.2 | U | ug/L | 1 | 7.2 | 20 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Methapyrilene [91-80-5] ^ | 3.5 | U | ug/L | 1 | 3.5 | 10 | 100 | EPA 8270D | 08/28/13 05:36 | DFM | QV-02 |
| Methyl Methanesulfonate [66-27-3] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Methyl parathion [298-00-0] ^ | 2.5 | U | ug/L | 1 | 2.5 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Nitrobenzene [98-95-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitrosodiethylamine [55-18-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitrosodimethylamine [62-75-9] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitrosodi-n-butylamine [924-16-3] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitroso-di-n-propylamine [621-64-7] ^ | 1.5 | U | ug/L | 1 | 1.5 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitrosomethylethylamine [10595-95-6] ^ | 1.9 | U | ug/L | 1 | 1.9 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitrosopiperidine [100-75-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| N-Nitrosopyrrolidine [930-55-2] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |

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**Description:** MW-11 | **Lab Sample ID:** C309858-11 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 12:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Semivolatile Organic Compounds by GCMS

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| O,O,O-Triethyl phosphorothioate [126-68-1] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| o-Toluidine [95-53-4] ^ | 1.1 | U | ug/L | 1 | 1.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Parathion [56-38-2] ^ | 1.7 | U | ug/L | 1 | 1.7 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| p-Dimethylaminoazobenzene [60-11-7] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Pentachlorobenzene [608-93-5] ^ | 1.3 | U | ug/L | 1 | 1.3 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Pentachloronitrobenzene [82-68-8] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Phenacetin [62-44-2] ^ | 2.7 | U | ug/L | 1 | 2.7 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Phenanthrene [85-01-8] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Phenol [108-95-2] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Phorate [298-02-2] ^ | 1.0 | U | ug/L | 1 | 1.0 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Pronamide [23950-58-5] ^ | 1.4 | U | ug/L | 1 | 1.4 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Pyrene [129-00-0] ^ | 2.1 | U | ug/L | 1 | 2.1 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Safrole [94-59-7] ^ | 1.2 | U | ug/L | 1 | 1.2 | 10 | 10 | EPA 8270D | 08/28/13 05:36 | DFM | |
| Thionazin [297-97-2] ^ | 2.3 | U | ug/L | 1 | 2.3 | 10 | 20 | EPA 8270D | 08/28/13 05:36 | DFM | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,6-Tribromophenol* | *100* | *1* | *100* | *102 %* | *10-179* | *3H19037* | *EPA 8270D* | *08/28/13 05:36* | *DFM* | |
| *2-Fluorobiphenyl* | *45* | *1* | *50.0* | *90 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 05:36* | *DFM* | |
| *2-Fluorophenol* | *59* | *1* | *100* | *59 %* | *10-110* | *3H19037* | *EPA 8270D* | *08/28/13 05:36* | *DFM* | |
| *Nitrobenzene-d5* | *40* | *1* | *50.0* | *81 %* | *10-149* | *3H19037* | *EPA 8270D* | *08/28/13 05:36* | *DFM* | |
| *Phenol-d5* | *48* | *1* | *100* | *48 %* | *10-88* | *3H19037* | *EPA 8270D* | *08/28/13 05:36* | *DFM* | |
| *Terphenyl-d14* | *51* | *1* | *50.0* | *103 %* | *10-188* | *3H19037* | *EPA 8270D* | *08/28/13 05:36* | *DFM* | |

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**Description:** MW-11 | **Lab Sample ID:** C309858-11 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 12:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Organochlorine Pesticides by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD [72-54-8] ^ | 0.044 | U | ug/L | 1 | 0.044 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| 4,4'-DDE [72-55-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| 4,4'-DDT [50-29-3] ^ | 0.049 | U | ug/L | 1 | 0.049 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Aldrin [309-00-2] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.05 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| alpha-BHC [319-84-6] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| beta-BHC [319-85-7] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.05 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Chlordane (tech) [12789-03-6] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 0.5 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Chlordane-alpha [5103-71-9] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | NE | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Chlordane-gamma [5566-34-7] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | NE | EPA 8081B | 08/28/13 18:00 | MSZ | |
| delta-BHC [319-86-8] ^ | 0.048 | U | ug/L | 1 | 0.048 | 0.050 | 0.05 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Dieldrin [60-57-1] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.075 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Endosulfan I [959-98-8] ^ | 0.045 | U | ug/L | 1 | 0.045 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Endosulfan II [33213-65-9] ^ | 0.036 | U | ug/L | 1 | 0.036 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Endosulfan sulfate [1031-07-8] ^ | 0.032 | U | ug/L | 1 | 0.032 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Endrin [72-20-8] ^ | 0.041 | U | ug/L | 1 | 0.041 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Endrin aldehyde [7421-93-4] ^ | 0.042 | U | ug/L | 1 | 0.042 | 0.050 | 0.1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| gamma-BHC [58-89-9] ^ | 0.034 | U | ug/L | 1 | 0.034 | 0.050 | 0.05 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Heptachlor [76-44-8] ^ | 0.030 | U | ug/L | 1 | 0.030 | 0.050 | 0.05 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Heptachlor epoxide [1024-57-3] ^ | 0.037 | U | ug/L | 1 | 0.037 | 0.050 | 0.075 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Methoxychlor [72-43-5] ^ | 0.025 | U | ug/L | 1 | 0.025 | 0.050 | 1 | EPA 8081B | 08/28/13 18:00 | MSZ | |
| Toxaphene [8001-35-2] ^ | 0.22 | U | ug/L | 1 | 0.22 | 0.50 | 1.5 | EPA 8081B | 08/28/13 18:00 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.67* | *1* | *1.00* | *67 %* | *44-134* | *3H20025* | *EPA 8081B* | *08/28/13 18:00* | *MSZ* | |
| *Decachlorobiphenyl* | *0.60* | *1* | *1.00* | *60 %* | *37-149* | *3H20025* | *EPA 8081B* | *08/28/13 18:00* | *MSZ* | |

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**Description:** MW-11 | **Lab Sample ID:** C309858-11 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 12:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Polychlorinated Biphenyls by GC

*^ - ENCO Cary certified analyte [NC 591]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 [12674-11-2/53469-21-9] ^ | 0.43 | U | ug/L | 1 | 0.43 | 0.50 | 2 | EPA 8082A | 08/28/13 18:00 | MSZ | |
| PCB-1221 [11104-28-2] ^ | 0.37 | U | ug/L | 1 | 0.37 | 0.50 | NE | EPA 8082A | 08/28/13 18:00 | MSZ | |
| PCB-1232 [11141-16-5] ^ | 0.35 | U | ug/L | 1 | 0.35 | 0.50 | NE | EPA 8082A | 08/28/13 18:00 | MSZ | |
| PCB-1248 [12672-29-6] ^ | 0.014 | U | ug/L | 1 | 0.014 | 0.50 | NE | EPA 8082A | 08/28/13 18:00 | MSZ | |
| PCB-1254 [11097-69-1] ^ | 0.015 | U | ug/L | 1 | 0.015 | 0.50 | NE | EPA 8082A | 08/28/13 18:00 | MSZ | |
| PCB-1260 [11096-82-5] ^ | 0.45 | U | ug/L | 1 | 0.45 | 0.50 | NE | EPA 8082A | 08/28/13 18:00 | MSZ | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4,5,6-TCMX* | *0.67* | *1* | *1.00* | *67 %* | *45-151* | *3H20026* | *EPA 8082A* | *08/28/13 18:00* | *MSZ* | |
| *Decachlorobiphenyl* | *0.60* | *1* | *1.00* | *60 %* | *42-159* | *3H20026* | *EPA 8082A* | *08/28/13 18:00* | *MSZ* | |

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**Description:** MW-11 | **Lab Sample ID:** C309858-11 | **Received:** 08/15/13 08:30

**Matrix:** Ground Water | **Sampled:** 08/13/13 12:00 | **Work Order:** C309858

**Project:** Wayne Closed MSWLF (Dudley) | **Sampled By:** Jonathan Pfohl

## Chlorinated Herbicides by GC

*^ - ENCO Orlando certified analyte [NC 424]*

| Analyte [CAS Number] | Results | Flag | Units | DF | MDL | MRL | NC SWSL | Method | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T [93-76-5] ^ | 0.23 | U | ug/L | 1 | 0.23 | 0.50 | 2 | EPA 8151A | 08/22/13 01:35 | RGG | |
| 2,4,5-TP (Silvex) [93-72-1] ^ | 0.20 | U | ug/L | 1 | 0.20 | 0.50 | 2 | EPA 8151A | 08/22/13 01:35 | RGG | |
| 2,4-D [94-75-7] ^ | 0.16 | U | ug/L | 1 | 0.16 | 0.50 | 2 | EPA 8151A | 08/22/13 01:35 | RGG | |
| Dinoseb [88-85-7] ^ | 0.32 | U | ug/L | 1 | 0.32 | 0.50 | 1 | EPA 8151A | 08/22/13 01:35 | RGG | |
| Pentachlorophenol [87-86-5] ^ | 0.19 | U | ug/L | 1 | 0.19 | 0.50 | 25 | EPA 8151A | 08/22/13 01:35 | RGG | |

| *Surrogates* | *Results* | *DF* | *Spike Lvl* | *% Rec* | *% Rec Limits* | *Batch* | *Method* | *Analyzed* | *By* | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *2,4-DCAA* | *2.4* | *1* | *2.00* | *120 %* | *68-139* | *3H19024* | *EPA 8151A* | *08/22/13 01:35* | *RGG* | |

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

## QUALITY CONTROL

### Semivolatile Organic Compounds by GCMS - Quality Control

*Batch 3H19037 - EPA 3510C_MS*

**Blank (3H19037-BLK1)** Prepared: 08/19/2013 17:49 Analyzed: 08/27/2013 21:34

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | 2.0 | U | 10 | ug/L | | | | | | | |
| 1,3,5-Trinitrobenzene | 3.0 | U | 10 | ug/L | | | | | | | |
| 1,3-Dinitrobenzene | 1.9 | U | 10 | ug/L | | | | | | | |
| 1,4-Naphthoquinone | 2.5 | U | 10 | ug/L | | | | | | | |
| 1,4-Phenylenediamine | 4.0 | U | 10 | ug/L | | | | | | | QV-01 |
| 1-Naphthylamine | 1.9 | U | 10 | ug/L | | | | | | | |
| 2,3,4,6-Tetrachlorophenol | 2.0 | U | 10 | ug/L | | | | | | | |
| 2,4,5-Trichlorophenol | 1.0 | U | 10 | ug/L | | | | | | | |
| 2,4,6-Trichlorophenol | 1.1 | U | 10 | ug/L | | | | | | | |
| 2,4-Dichlorophenol | 1.4 | U | 10 | ug/L | | | | | | | |
| 2,4-Dimethylphenol | 1.3 | U | 10 | ug/L | | | | | | | |
| 2,4-Dinitrophenol | 2.6 | U | 10 | ug/L | | | | | | | |
| 2,4-Dinitrotoluene | 2.4 | U | 10 | ug/L | | | | | | | |
| 2,6-Dichlorophenol | 1.1 | U | 10 | ug/L | | | | | | | |
| 2,6-Dinitrotoluene | 1.5 | U | 10 | ug/L | | | | | | | |
| 2-Acetylaminofluorene | 2.5 | U | 10 | ug/L | | | | | | | |
| 2-Chloronaphthalene | 1.0 | U | 10 | ug/L | | | | | | | |
| 2-Chlorophenol | 1.2 | U | 10 | ug/L | | | | | | | |
| 2-Methyl-4,6-dinitrophenol | 2.9 | U | 10 | ug/L | | | | | | | QV-01 |
| 2-Methylnaphthalene | 1.5 | U | 10 | ug/L | | | | | | | |
| 2-Methylphenol | 1.4 | U | 10 | ug/L | | | | | | | |
| 2-Naphthylamine | 3.0 | U | 10 | ug/L | | | | | | | |
| 2-Nitroaniline | 1.5 | U | 10 | ug/L | | | | | | | |
| 2-Nitrophenol | 1.1 | U | 10 | ug/L | | | | | | | |
| 3 & 4-Methylphenol | 1.6 | U | 10 | ug/L | | | | | | | |
| 3,3'-Dichlorobenzidine | 3.3 | U | 10 | ug/L | | | | | | | |
| 3,3'-Dimethylbenzidine | 2.2 | U | 10 | ug/L | | | | | | | |
| 3-Methylcholanthrene | 1.3 | U | 10 | ug/L | | | | | | | |
| 3-Nitroaniline | 2.1 | U | 10 | ug/L | | | | | | | |
| 4-Aminobiphenyl | 2.1 | U | 10 | ug/L | | | | | | | |
| 4-Bromophenyl-phenylether | 1.0 | U | 10 | ug/L | | | | | | | |
| 4-Chloro-3-methylphenol | 1.5 | U | 10 | ug/L | | | | | | | |
| 4-Chloroaniline | 1.2 | U | 10 | ug/L | | | | | | | |
| 4-Chlorophenyl-phenylether | 1.6 | U | 10 | ug/L | | | | | | | |
| 4-Nitroaniline | 3.2 | U | 10 | ug/L | | | | | | | |
| 4-Nitrophenol | 2.0 | U | 10 | ug/L | | | | | | | |
| 5-Nitro-o-toluidine | 3.2 | U | 10 | ug/L | | | | | | | QV-01 |
| 7,12-Dimethylbenz(a)anthracene | 1.1 | U | 10 | ug/L | | | | | | | |
| Acenaphthene | 1.4 | U | 10 | ug/L | | | | | | | |
| Acenaphthylene | 1.2 | U | 10 | ug/L | | | | | | | |
| Acetophenone | 1.3 | U | 10 | ug/L | | | | | | | |
| Anthracene | 1.6 | U | 10 | ug/L | | | | | | | |
| Benzo(a)anthracene | 1.3 | U | 10 | ug/L | | | | | | | |
| Benzo(a)pyrene | 1.3 | U | 10 | ug/L | | | | | | | |
| Benzo(b)fluoranthene | 1.0 | U | 10 | ug/L | | | | | | | |
| Benzo(g,h,i)perylene | 2.4 | U | 10 | ug/L | | | | | | | |
| Benzo(k)fluoranthene | 1.3 | U | 10 | ug/L | | | | | | | |
| Benzyl alcohol | 1.4 | U | 10 | ug/L | | | | | | | |
| Bis(2-chloroethoxy)methane | 1.4 | U | 10 | ug/L | | | | | | | |

## QUALITY CONTROL

### Semivolatile Organic Compounds by GCMS - Quality Control

*Batch 3H19037 - EPA 3510C_MS*

**Blank (3H19037-BLK1) Continued** Prepared: 08/19/2013 17:49 Analyzed: 08/27/2013 21:34

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bis(2-chloroethyl)ether | 1.2 | U | 10 | ug/L | | | | | | | |
| Bis(2-chloroisopropyl)ether | 1.3 | U | 10 | ug/L | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 1.7 | U | 5.0 | ug/L | | | | | | | |
| Butylbenzylphthalate | 2.0 | U | 10 | ug/L | | | | | | | |
| Chlorobenzilate | 1.0 | U | 10 | ug/L | | | | | | | |
| Chrysene | 2.0 | U | 10 | ug/L | | | | | | | |
| Diallate | 1.0 | U | 10 | ug/L | | | | | | | QV-02 |
| Dibenzo(a,h)anthracene | 2.3 | U | 10 | ug/L | | | | | | | |
| Dibenzofuran | 1.4 | U | 10 | ug/L | | | | | | | |
| Diethylphthalate | 2.1 | U | 10 | ug/L | | | | | | | |
| Dimethoate | 2.3 | U | 10 | ug/L | | | | | | | QV-02 |
| Dimethylphthalate | 1.4 | U | 10 | ug/L | | | | | | | |
| Di-n-butylphthalate | 1.5 | U | 10 | ug/L | | | | | | | |
| Di-n-octylphthalate | 3.1 | U | 10 | ug/L | | | | | | | |
| Disulfoton | 1.1 | U | 10 | ug/L | | | | | | | |
| Ethyl methanesulfonate | 1.2 | U | 10 | ug/L | | | | | | | |
| Famphur | 2.7 | U | 10 | ug/L | | | | | | | |
| Fluoranthene | 2.1 | U | 10 | ug/L | | | | | | | |
| Fluorene | 1.7 | U | 10 | ug/L | | | | | | | |
| Hexachlorobenzene | 1.0 | U | 10 | ug/L | | | | | | | |
| Hexachlorobutadiene | 1.2 | U | 10 | ug/L | | | | | | | |
| Hexachlorocyclopentadiene | 1.3 | U | 10 | ug/L | | | | | | | |
| Hexachloroethane | 1.1 | U | 10 | ug/L | | | | | | | |
| Hexachloropropene | 1.7 | U | 10 | ug/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 2.2 | U | 10 | ug/L | | | | | | | |
| Isodrin | 1.0 | U | 10 | ug/L | | | | | | | |
| Isophorone | 1.3 | U | 10 | ug/L | | | | | | | |
| Isosafrole | 1.3 | U | 10 | ug/L | | | | | | | |
| Kepone | 7.2 | U | 20 | ug/L | | | | | | | |
| Methapyrilene | 3.5 | U | 10 | ug/L | | | | | | | QV-02 |
| Methyl Methanesulfonate | 1.0 | U | 10 | ug/L | | | | | | | |
| Methyl parathion | 2.5 | U | 10 | ug/L | | | | | | | |
| Nitrobenzene | 1.2 | U | 10 | ug/L | | | | | | | |
| N-Nitrosodiethylamine | 1.3 | U | 10 | ug/L | | | | | | | |
| N-Nitrosodimethylamine | 1.3 | U | 10 | ug/L | | | | | | | |
| N-Nitrosodi-n-butylamine | 1.2 | U | 10 | ug/L | | | | | | | |
| N-Nitroso-di-n-propylamine | 1.5 | U | 10 | ug/L | | | | | | | |
| N-nitrosodiphenylamine/Diphenylamine | 2.1 | U | 10 | ug/L | | | | | | | |
| N-Nitrosomethylethylamine | 1.9 | U | 10 | ug/L | | | | | | | |
| N-Nitrosopiperidine | 1.1 | U | 10 | ug/L | | | | | | | |
| N-Nitrosopyrrolidine | 1.3 | U | 10 | ug/L | | | | | | | |
| O,O,O-Triethyl phosphorothioate | 1.3 | U | 10 | ug/L | | | | | | | |
| o-Toluidine | 1.1 | U | 10 | ug/L | | | | | | | |
| Parathion | 1.7 | U | 10 | ug/L | | | | | | | |
| p-Dimethylaminoazobenzene | 1.4 | U | 10 | ug/L | | | | | | | |
| Pentachlorobenzene | 1.3 | U | 10 | ug/L | | | | | | | |
| Pentachloronitrobenzene | 1.0 | U | 10 | ug/L | | | | | | | |
| Phenacetin | 2.7 | U | 10 | ug/L | | | | | | | |
| Phenanthrene | 1.4 | U | 10 | ug/L | | | | | | | |

## QUALITY CONTROL

### Semivolatile Organic Compounds by GCMS - Quality Control

*Batch 3H19037 - EPA 3510C_MS*

**Blank (3H19037-BLK1) Continued** Prepared: 08/19/2013 17:49 Analyzed: 08/27/2013 21:34

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | 1.4 | U | 10 | ug/L | | | | | | | |
| Phorate | 1.0 | U | 10 | ug/L | | | | | | | |
| Pronamide | 1.4 | U | 10 | ug/L | | | | | | | |
| Pyrene | 2.1 | U | 10 | ug/L | | | | | | | |
| Safrole | 1.2 | U | 10 | ug/L | | | | | | | |
| Thionazin | 2.3 | U | 10 | ug/L | | | | | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *81* | | | *ug/L* | *100* | | *81* | *10-179* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *40* | | | *ug/L* | *50.0* | | *80* | *10-149* | | | |
| *Surrogate: 2-Fluorophenol* | *61* | | | *ug/L* | *100* | | *61* | *10-110* | | | |
| *Surrogate: Nitrobenzene-d5* | *36* | | | *ug/L* | *50.0* | | *72* | *10-149* | | | |
| *Surrogate: Phenol-d5* | *51* | | | *ug/L* | *100* | | *51* | *10-88* | | | |
| *Surrogate: Terphenyl-d14* | *47* | | | *ug/L* | *50.0* | | *93* | *10-188* | | | |

**LCS (3H19037-BS1)** Prepared: 08/19/2013 17:49 Analyzed: 08/27/2013 22:05

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 38 | | 10 | ug/L | 50.0 | | 77 | 40-109 | | | |
| 4-Chloro-3-methylphenol | 44 | | 10 | ug/L | 50.0 | | 88 | 58-121 | | | |
| 4-Nitrophenol | 34 | | 10 | ug/L | 50.0 | | 68 | 33-105 | | | |
| Acenaphthene | 41 | | 10 | ug/L | 50.0 | | 82 | 39-125 | | | |
| N-Nitroso-di-n-propylamine | 40 | | 10 | ug/L | 50.0 | | 80 | 48-126 | | | |
| Phenol | 28 | | 10 | ug/L | 50.0 | | 56 | 19-78 | | | |
| Pyrene | 45 | | 10 | ug/L | 50.0 | | 91 | 44-137 | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *97* | | | *ug/L* | *100* | | *97* | *10-179* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *42* | | | *ug/L* | *50.0* | | *84* | *10-149* | | | |
| *Surrogate: 2-Fluorophenol* | *65* | | | *ug/L* | *100* | | *65* | *10-110* | | | |
| *Surrogate: Nitrobenzene-d5* | *40* | | | *ug/L* | *50.0* | | *80* | *10-149* | | | |
| *Surrogate: Phenol-d5* | *55* | | | *ug/L* | *100* | | *55* | *10-88* | | | |
| *Surrogate: Terphenyl-d14* | *46* | | | *ug/L* | *50.0* | | *93* | *10-188* | | | |

**Matrix Spike (3H19037-MS1)** Prepared: 08/19/2013 17:49 Analyzed: 08/27/2013 22:38

**Source: C310330-04**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 42 | | 10 | ug/L | 50.0 | 1.2 U | 84 | 40-109 | | | |
| 4-Chloro-3-methylphenol | 47 | | 10 | ug/L | 50.0 | 1.5 U | 94 | 58-121 | | | |
| 4-Nitrophenol | 36 | | 10 | ug/L | 50.0 | 2.0 U | 72 | 33-105 | | | |
| Acenaphthene | 45 | | 10 | ug/L | 50.0 | 1.4 U | 91 | 39-125 | | | |
| N-Nitroso-di-n-propylamine | 44 | | 10 | ug/L | 50.0 | 1.5 U | 87 | 48-126 | | | |
| Phenol | 31 | | 10 | ug/L | 50.0 | 1.4 U | 61 | 19-78 | | | |
| Pyrene | 48 | | 10 | ug/L | 50.0 | 2.1 U | 97 | 44-137 | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *100* | | | *ug/L* | *100* | | *101* | *10-179* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *46* | | | *ug/L* | *50.0* | | *91* | *10-149* | | | |
| *Surrogate: 2-Fluorophenol* | *68* | | | *ug/L* | *100* | | *68* | *10-110* | | | |
| *Surrogate: Nitrobenzene-d5* | *42* | | | *ug/L* | *50.0* | | *84* | *10-149* | | | |
| *Surrogate: Phenol-d5* | *57* | | | *ug/L* | *100* | | *57* | *10-88* | | | |
| *Surrogate: Terphenyl-d14* | *48* | | | *ug/L* | *50.0* | | *97* | *10-188* | | | |

## QUALITY CONTROL

### Semivolatile Organic Compounds by GCMS - Quality Control

*Batch 3H19037 - EPA 3510C_MS*

**Matrix Spike Dup (3H19037-MSD1)** Prepared: 08/19/2013 17:49 Analyzed: 08/27/2013 23:10

**Source: C310330-04**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 40 | | 10 | ug/L | 50.0 | 1.2 U | 80 | 40-109 | 5 | 22 | |
| 4-Chloro-3-methylphenol | 45 | | 10 | ug/L | 50.0 | 1.5 U | 90 | 58-121 | 4 | 22 | |
| 4-Nitrophenol | 31 | | 10 | ug/L | 50.0 | 2.0 U | 63 | 33-105 | 13 | 27 | |
| Acenaphthene | 43 | | 10 | ug/L | 50.0 | 1.4 U | 87 | 39-125 | 5 | 25 | |
| N-Nitroso-di-n-propylamine | 42 | | 10 | ug/L | 50.0 | 1.5 U | 85 | 48-126 | 3 | 23 | |
| Phenol | 27 | | 10 | ug/L | 50.0 | 1.4 U | 54 | 19-78 | 12 | 18 | |
| Pyrene | 48 | | 10 | ug/L | 50.0 | 2.1 U | 96 | 44-137 | 1 | 24 | |
| *Surrogate: 2,4,6-Tribromophenol* | *96* | | | *ug/L* | *100* | | *96* | *10-179* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *43* | | | *ug/L* | *50.0* | | *85* | *10-149* | | | |
| *Surrogate: 2-Fluorophenol* | *63* | | | *ug/L* | *100* | | *63* | *10-110* | | | |
| *Surrogate: Nitrobenzene-d5* | *41* | | | *ug/L* | *50.0* | | *81* | *10-149* | | | |
| *Surrogate: Phenol-d5* | *51* | | | *ug/L* | *100* | | *51* | *10-88* | | | |
| *Surrogate: Terphenyl-d14* | *48* | | | *ug/L* | *50.0* | | *97* | *10-188* | | | |

### Organochlorine Pesticides by GC - Quality Control

*Batch 3H20025 - EPA 3510C*

**Blank (3H20025-BLK1)** Prepared: 08/20/2013 14:34 Analyzed: 08/28/2013 13:49

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDD | 0.044 | U | 0.050 | ug/L | | | | | | | |
| 4,4'-DDE | 0.048 | U | 0.050 | ug/L | | | | | | | |
| 4,4'-DDT | 0.049 | U | 0.050 | ug/L | | | | | | | |
| Aldrin | 0.041 | U | 0.050 | ug/L | | | | | | | |
| alpha-BHC | 0.036 | U | 0.050 | ug/L | | | | | | | |
| beta-BHC | 0.036 | U | 0.050 | ug/L | | | | | | | |
| Chlordane (tech) | 0.20 | U | 0.50 | ug/L | | | | | | | |
| Chlordane-alpha | 0.048 | U | 0.050 | ug/L | | | | | | | |
| Chlordane-gamma | 0.042 | U | 0.050 | ug/L | | | | | | | |
| delta-BHC | 0.048 | U | 0.050 | ug/L | | | | | | | |
| Dieldrin | 0.045 | U | 0.050 | ug/L | | | | | | | |
| Endosulfan I | 0.045 | U | 0.050 | ug/L | | | | | | | |
| Endosulfan II | 0.036 | U | 0.050 | ug/L | | | | | | | |
| Endosulfan sulfate | 0.032 | U | 0.050 | ug/L | | | | | | | |
| Endrin | 0.041 | U | 0.050 | ug/L | | | | | | | |
| Endrin aldehyde | 0.042 | U | 0.050 | ug/L | | | | | | | |
| gamma-BHC | 0.034 | U | 0.050 | ug/L | | | | | | | |
| Heptachlor | 0.030 | U | 0.050 | ug/L | | | | | | | |
| Heptachlor epoxide | 0.037 | U | 0.050 | ug/L | | | | | | | |
| Methoxychlor | 0.025 | U | 0.050 | ug/L | | | | | | | |
| Toxaphene | 0.22 | U | 0.50 | ug/L | | | | | | | |
| *Surrogate: 2,4,5,6-TCMX* | *0.85* | | | *ug/L* | *1.00* | | *85* | *44-134* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.94* | | | *ug/L* | *1.00* | | *94* | *37-149* | | | |

**LCS (3H20025-BS1)** Prepared: 08/20/2013 14:34 Analyzed: 08/28/2013 14:02

# QUALITY CONTROL

## Organochlorine Pesticides by GC - Quality Control

*Batch 3H20025 - EPA 3510C*

**LCS (3H20025-BS1) Continued** Prepared: 08/20/2013 14:34 Analyzed: 08/28/2013 14:02

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDT | 0.99 | | 0.050 | ug/L | 1.00 | | 99 | 37-139 | | | |
| Dieldrin | 0.86 | | 0.050 | ug/L | 1.00 | | 86 | 46-132 | | | |
| Endrin | 0.86 | | 0.050 | ug/L | 1.00 | | 86 | 43-133 | | | |
| *Surrogate: 2,4,5,6-TCMX* | *0.77* | | | *ug/L* | *1.00* | | *77* | *44-134* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.83* | | | *ug/L* | *1.00* | | *83* | *37-149* | | | |

**Matrix Spike (3H20025-MS1)** Prepared: 08/20/2013 14:34 Analyzed: 08/28/2013 14:15

**Source: C310330-05**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDT | 1.1 | | 0.050 | ug/L | 1.00 | 0.049 U | 108 | 37-139 | | | |
| Dieldrin | 0.91 | | 0.050 | ug/L | 1.00 | 0.045 U | 91 | 46-132 | | | |
| Endrin | 0.92 | | 0.050 | ug/L | 1.00 | 0.041 U | 92 | 43-133 | | | |
| *Surrogate: 2,4,5,6-TCMX* | *0.77* | | | *ug/L* | *1.00* | | *77* | *44-134* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.87* | | | *ug/L* | *1.00* | | *87* | *37-149* | | | |

**Matrix Spike Dup (3H20025-MSD1)** Prepared: 08/20/2013 14:34 Analyzed: 08/28/2013 14:29

**Source: C310330-05**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDT | 1.0 | | 0.050 | ug/L | 1.00 | 0.049 U | 105 | 37-139 | 3 | 26 | |
| Dieldrin | 0.92 | | 0.050 | ug/L | 1.00 | 0.045 U | 92 | 46-132 | 0.2 | 27 | |
| Endrin | 0.91 | | 0.050 | ug/L | 1.00 | 0.041 U | 91 | 43-133 | 1 | 26 | |
| *Surrogate: 2,4,5,6-TCMX* | *0.77* | | | *ug/L* | *1.00* | | *77* | *44-134* | | | |
| *Surrogate: Decachlorobiphenyl* | *1.1* | | | *ug/L* | *1.00* | | *111* | *37-149* | | | |

## Polychlorinated Biphenyls by GC - Quality Control

*Batch 3H20026 - EPA 3510C*

**Blank (3H20026-BLK1)** Prepared: 08/20/2013 14:37 Analyzed: 08/28/2013 13:49

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 | 0.43 | U | 0.50 | ug/L | | | | | | | |
| PCB-1221 | 0.37 | U | 0.50 | ug/L | | | | | | | |
| PCB-1232 | 0.35 | U | 0.50 | ug/L | | | | | | | |
| PCB-1248 | 0.014 | U | 0.50 | ug/L | | | | | | | |
| PCB-1254 | 0.015 | U | 0.50 | ug/L | | | | | | | |
| PCB-1260 | 0.45 | U | 0.50 | ug/L | | | | | | | |
| *Surrogate: 2,4,5,6-TCMX* | *0.85* | | | *ug/L* | *1.00* | | *85* | *45-151* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.94* | | | *ug/L* | *1.00* | | *94* | *42-159* | | | |

**LCS (3H20026-BS1)** Prepared: 08/20/2013 14:37 Analyzed: 08/28/2013 14:42

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 | 10 | | 0.50 | ug/L | 10.0 | | 103 | 66-149 | | | |
| PCB-1260 | 11 | | 0.50 | ug/L | 10.0 | | 107 | 64-150 | | | |

## QUALITY CONTROL

### Polychlorinated Biphenyls by GC - Quality Control

*Batch 3H20026 - EPA 3510C*

**LCS (3H20026-BS1) Continued** Prepared: 08/20/2013 14:37 Analyzed: 08/28/2013 14:42

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Surrogate: 2,4,5,6-TCMX* | *0.89* | | | *ug/L* | *1.00* | | *89* | *45-151* | | | |
| *Surrogate: Decachlorobiphenyl* | *1.1* | | | *ug/L* | *1.00* | | *107* | *42-159* | | | |

**Matrix Spike (3H20026-MS1)** Prepared: 08/20/2013 14:37 Analyzed: 08/28/2013 14:55

**Source: C310330-05**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 | 10 | | 0.50 | ug/L | 10.0 | 0.43 U | 105 | 66-149 | | | |
| PCB-1260 | 11 | | 0.50 | ug/L | 10.0 | 0.45 U | 111 | 64-150 | | | |
| *Surrogate: 2,4,5,6-TCMX* | *0.89* | | | *ug/L* | *1.00* | | *89* | *45-151* | | | |
| *Surrogate: Decachlorobiphenyl* | *0.98* | | | *ug/L* | *1.00* | | *98* | *42-159* | | | |

**Matrix Spike Dup (3H20026-MSD1)** Prepared: 08/20/2013 14:37 Analyzed: 08/28/2013 15:08

**Source: C310330-05**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016/1242 | 12 | | 0.50 | ug/L | 10.0 | 0.43 U | 119 | 66-149 | 13 | 21 | |
| PCB-1260 | 12 | | 0.50 | ug/L | 10.0 | 0.45 U | 120 | 64-150 | 8 | 18 | |
| *Surrogate: 2,4,5,6-TCMX* | *0.98* | | | *ug/L* | *1.00* | | *98* | *45-151* | | | |
| *Surrogate: Decachlorobiphenyl* | *1.1* | | | *ug/L* | *1.00* | | *106* | *42-159* | | | |

## QUALITY CONTROL

### Chlorinated Herbicides by GC - Quality Control

*Batch 3H19024 - EPA 3510C*

**Blank (3H19024-BLK1)** Prepared: 08/19/2013 14:30 Analyzed: 08/21/2013 11:35

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-T | 0.23 | U | 0.50 | ug/L | | | | | | | |
| 2,4,5-TP (Silvex) | 0.20 | U | 0.50 | ug/L | | | | | | | |
| 2,4-D | 0.16 | U | 0.50 | ug/L | | | | | | | |
| Dinoseb | 0.32 | U | 0.50 | ug/L | | | | | | | |
| Pentachlorophenol | 0.19 | U | 0.50 | ug/L | | | | | | | |
| *Surrogate: 2,4-DCAA* | *1.8* | | | *ug/L* | *2.00* | | *90* | *68-139* | | | |

**LCS (3H19024-BS1)** Prepared: 08/19/2013 14:30 Analyzed: 08/21/2013 12:26

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | 2.1 | | 0.50 | ug/L | 2.00 | | 105 | 70-114 | | | |
| 2,4-D | 2.1 | | 0.50 | ug/L | 2.00 | | 107 | 37-129 | | | |
| *Surrogate: 2,4-DCAA* | *1.9* | | | *ug/L* | *2.00* | | *93* | *68-139* | | | |

**Matrix Spike (3H19024-MS1)** Prepared: 08/19/2013 14:30 Analyzed: 08/21/2013 12:52

**Source: A304595-01**

## QUALITY CONTROL

### Chlorinated Herbicides by GC - Quality Control

*Batch 3H19024 - EPA 3510C*

**Matrix Spike (3H19024-MS1) Continued** Prepared: 08/19/2013 14:30 Analyzed: 08/21/2013 12:52

**Source: A304595-01**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | 2.2 | | 0.50 | ug/L | 2.00 | 0.20 U | 110 | 70-114 | | | |
| 2,4-D | 2.3 | | 0.50 | ug/L | 2.00 | 0.16 U | 115 | 37-129 | | | |
| *Surrogate: 2,4-DCAA* | *2.0* | | | *ug/L* | *2.00* | | *98* | *68-139* | | | |

**Matrix Spike Dup (3H19024-MSD1)** Prepared: 08/19/2013 14:30 Analyzed: 08/21/2013 13:17

**Source: A304595-01**

| Analyte | Result | Flag | MRL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-TP (Silvex) | 2.3 | | 0.50 | ug/L | 2.00 | 0.20 U | 115 | 70-114 | 5 | 15 | QM-07 |
| 2,4-D | 2.4 | | 0.50 | ug/L | 2.00 | 0.16 U | 120 | 37-129 | 4 | 33 | |
| *Surrogate: 2,4-DCAA* | *2.0* | | | *ug/L* | *2.00* | | *101* | *68-139* | | | |

## FLAGS/NOTES AND DEFINITIONS

| | |
|---|---|
| B | The analyte was detected in the associated method blank. |
| D | The sample was analyzed at dilution. |
| J | The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable. |
| U | The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable. |
| E | The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate. |
| MRL | Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. |
| QV-01 | The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal. |
| QV-02 | The associated continuing calibration verification standard exhibited low bias; the reported result should be considered to be a minimum estimate. |

# ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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10775 Central Port Dr.
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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Page 1 of 1

| | |
|---|---|
| Client Name: Municipal Engineering Services (MU001) | Project Number: [none] |
| Address: P.O. Box 97 | Project Name/Desc: Wayne Closed MSWLF (Dudley) |
| City/ST/Zip: Garner, NC 27529 | PO # / Billing Info: |
| Tel: (919) 772-5393 Fax: (919) 772-1176 | Reporting Contact: Jonathan Pfohl |
| Sampler(s) Name, Affiliation (Print): Jonathan Pfohl, MESCO | Billing Contact: Accounts Payable |
| Sampler(s) Signature: | Site Location / Time Zone: |

Requested Analyses: 8081B Appendix 2, 8082A Appendix 2, 8151A Appendix 2, 8270D Appendix 2

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C309858

Preservation (See Codes) (Combine as necessary)

| Item # | Sample ID (Field Identification) | Collection Date | Collection Time | Comp / Grab | Matrix (see codes) | Total # of Containers | | Sample Comments |
|---|---|---|---|---|---|---|---|---|
| | MW-1R | 8/14/13 | 9:55 | Grab | GW | 3 | X | |
| | MW-2 | 8/14/13 | 11:25 | | GW | 3 | X | |
| | MW-3 | 8/13/13 | 2:00 | | GW | 3 | X | |
| | MW-4 | | 10:10 | | GW | 3 | X | |
| | MW-5 | | 11:25 | | GW | 3 | X | |
| | MW-6 | | 10:45 | | GW | 3 | X | |
| | MW-7 | | 2:40 | | GW | 3 | X | |
| | MW-8 | 8/14/13 | 10:35 | | GW | 3 | X | |
| | MW-9 | 8/13/13 | 3:10 | | GW | 3 | X | |
| | MW-10 | | 4:50 | | GW | 3 | X | |
| | MW-11 | | 12:00 | | GW | 3 | X | |
| | ~~MW~~ | | | | GW | 3 | X | |

<-- Total # of Containers

| Sample Kit Prepared By | Date/Time | Relinquished By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|---|
| | | MESCO 8/15/13 | | | 8-15-13 8:30 |
| Comments/Special Reporting Requirements | | Relinquished By | Date/Time | Received By | Date/Time |
| | | Relinquished By | Date/Time | Received By | Date/Time |

Cooler #'s & Temps on Receipt: C-904 2.0c C-1002 3.1c C-012 2.8c C-210 2.4c

Condition Upon Receipt: ✓ Acceptable ___ Unacceptable

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

**Pace Analytical Services, Inc.**
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**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
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(704)875-9092

August 26, 2013

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: Wayne Closed MSWLF
Pace Project No.: 92169051

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on August 15, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures



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without the written consent of Pace Analytical Services, Inc..

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(704)875-9092

# CERTIFICATIONS

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

**Charlotte Certification IDs**
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221



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## SAMPLE SUMMARY

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **92169051001** | **SW-ByMW-2** | Water | 08/14/13 11:40 | 08/15/13 16:10 |



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## SAMPLE ANALYTE COUNT

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **92169051001** | **SW-ByMW-2** | EPA 8260 | MCK | 68 | PASI-C |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

**Sample: SW-ByMW-2** **Lab ID: 92169051001** Collected: 08/14/13 11:40 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 07:08 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/24/13 07:08 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/24/13 07:08 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 07:08 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/24/13 07:08 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:08 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 07:08 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 07:08 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 07:08 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 07:08 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 07:08 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 07:08 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:08 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 07:08 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 07:08 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 07:08 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 07:08 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/24/13 07:08 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 07:08 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 07:08 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:08 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 07:08 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 07:08 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/24/13 07:08 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 07:08 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 07:08 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/24/13 07:08 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 07:08 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 07:08 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 07:08 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 07:08 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:08 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:08 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 07:08 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/24/13 07:08 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:08 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 07:08 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:08 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 07:08 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/24/13 07:08 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/24/13 07:08 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 07:08 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 07:08 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/24/13 07:08 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/24/13 07:08 | 126-98-7 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 07:08 | 75-09-2 | |



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# ANALYTICAL RESULTS

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

**Sample: SW-ByMW-2** **Lab ID: 92169051001** Collected: 08/14/13 11:40 Received: 08/15/13 16:10 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/24/13 07:08 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/24/13 07:08 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/24/13 07:08 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/24/13 07:08 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:08 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 07:08 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 07:08 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 07:08 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:08 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/24/13 07:08 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 07:08 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 07:08 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 07:08 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 07:08 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 07:08 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 07:08 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 07:08 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 07:08 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 98 | % | 70-130 | | 1 | | 08/24/13 07:08 | 460-00-4 | |
| Dibromofluoromethane (S) | 103 | % | 70-130 | | 1 | | 08/24/13 07:08 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 108 | % | 70-130 | | 1 | | 08/24/13 07:08 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | 70-130 | | 1 | | 08/24/13 07:08 | 2037-26-5 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

QC Batch: MSV/23962
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92169051001

METHOD BLANK: 1030750
Matrix: Water
Associated Lab Samples: 92169051001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,1,1-Trichloroethane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 3.0 | 08/24/13 01:36 | |
| 1,1,2-Trichloroethane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,1-Dichloroethane | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,1-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,1-Dichloropropene | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,2,3-Trichloropropane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,2,4-Trichlorobenzene | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 13.0 | 08/24/13 01:36 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,2-Dichlorobenzene | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,2-Dichloroethane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,2-Dichloropropane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,3-Dichlorobenzene | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,3-Dichloropropane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 1,4-Dichlorobenzene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| 2,2-Dichloropropane | ug/L | ND | 15.0 | 08/24/13 01:36 | |
| 2-Butanone (MEK) | ug/L | ND | 100 | 08/24/13 01:36 | |
| 2-Hexanone | ug/L | ND | 50.0 | 08/24/13 01:36 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 100 | 08/24/13 01:36 | |
| Acetone | ug/L | ND | 100 | 08/24/13 01:36 | |
| Acetonitrile | ug/L | ND | 55.0 | 08/24/13 01:36 | |
| Acrolein | ug/L | ND | 53.0 | 08/24/13 01:36 | |
| Acrylonitrile | ug/L | ND | 200 | 08/24/13 01:36 | |
| Allyl chloride | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Benzene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Bromochloromethane | ug/L | ND | 3.0 | 08/24/13 01:36 | |
| Bromodichloromethane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Bromoform | ug/L | ND | 3.0 | 08/24/13 01:36 | |
| Bromomethane | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Carbon disulfide | ug/L | ND | 100 | 08/24/13 01:36 | |
| Carbon tetrachloride | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Chlorobenzene | ug/L | ND | 3.0 | 08/24/13 01:36 | |
| Chloroethane | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Chloroform | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| Chloromethane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Chloroprene | ug/L | ND | 20.0 | 08/24/13 01:36 | |
| cis-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| cis-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Dibromochloromethane | ug/L | ND | 3.0 | 08/24/13 01:36 | |
| Dibromomethane | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Dichlorodifluoromethane | ug/L | ND | 5.0 | 08/24/13 01:36 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

METHOD BLANK: 1030750 Matrix: Water

Associated Lab Samples: 92169051001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Ethyl methacrylate | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Ethylbenzene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Hexachloro-1,3-butadiene | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Iodomethane | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Isobutanol | ug/L | ND | 100 | 08/24/13 01:36 | |
| Methacrylonitrile | ug/L | ND | 100 | 08/24/13 01:36 | |
| Methyl methacrylate | ug/L | ND | 30.0 | 08/24/13 01:36 | |
| Methylene Chloride | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Naphthalene | ug/L | ND | 10.0 | 08/24/13 01:36 | |
| Propionitrile | ug/L | ND | 150 | 08/24/13 01:36 | |
| Styrene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Tetrachloroethene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Toluene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| trans-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| trans-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| trans-1,4-Dichloro-2-butene | ug/L | ND | 100 | 08/24/13 01:36 | |
| Trichloroethene | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Trichlorofluoromethane | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Vinyl acetate | ug/L | ND | 50.0 | 08/24/13 01:36 | |
| Vinyl chloride | ug/L | ND | 1.0 | 08/24/13 01:36 | |
| Xylene (Total) | ug/L | ND | 5.0 | 08/24/13 01:36 | |
| 1,2-Dichloroethane-d4 (S) | % | 98 | 70-130 | 08/24/13 01:36 | |
| 4-Bromofluorobenzene (S) | % | 98 | 70-130 | 08/24/13 01:36 | |
| Dibromofluoromethane (S) | % | 97 | 70-130 | 08/24/13 01:36 | |
| Toluene-d8 (S) | % | 95 | 70-130 | 08/24/13 01:36 | |

LABORATORY CONTROL SAMPLE: 1030751

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 57.6 | 115 | 70-130 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 50.0 | 100 | 70-130 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 56.6 | 113 | 70-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 53.5 | 107 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 46.8 | 94 | 70-130 | |
| 1,1-Dichloroethene | ug/L | 50 | 49.7 | 99 | 70-132 | |
| 1,1-Dichloropropene | ug/L | 50 | 47.7 | 95 | 70-130 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 54.1 | 108 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 58.3 | 117 | 70-134 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 60.4 | 121 | 70-130 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 57.0 | 114 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 61.9 | 124 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 48.4 | 97 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 47.4 | 95 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 59.9 | 120 | 70-130 | |
| 1,3-Dichloropropane | ug/L | 50 | 52.6 | 105 | 70-130 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

LABORATORY CONTROL SAMPLE: 1030751

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ug/L | 50 | 60.0 | 120 | 70-130 | |
| 2,2-Dichloropropane | ug/L | 50 | 39.6 | 79 | 58-145 | |
| 2-Butanone (MEK) | ug/L | 100 | 102 | 102 | 70-145 | |
| 2-Hexanone | ug/L | 100 | 119 | 119 | 70-144 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 100 | 109 | 109 | 70-140 | |
| Acetone | ug/L | 100 | 96.5J | 97 | 50-175 | |
| Acetonitrile | ug/L | 500 | 491 | 98 | 70-130 | |
| Acrolein | ug/L | 250 | 241 | 96 | 70-130 | |
| Acrylonitrile | ug/L | 250 | 253 | 101 | 70-143 | |
| Allyl chloride | ug/L | 50 | 50.2 | 100 | 70-130 | |
| Benzene | ug/L | 50 | 51.9 | 104 | 70-130 | |
| Bromochloromethane | ug/L | 50 | 48.6 | 97 | 70-130 | |
| Bromodichloromethane | ug/L | 50 | 51.4 | 103 | 70-130 | |
| Bromoform | ug/L | 50 | 59.4 | 119 | 70-130 | |
| Bromomethane | ug/L | 50 | 46.7 | 93 | 54-130 | |
| Carbon disulfide | ug/L | 50 | 49.7J | 99 | 70-131 | |
| Carbon tetrachloride | ug/L | 50 | 49.1 | 98 | 70-132 | |
| Chlorobenzene | ug/L | 50 | 56.5 | 113 | 70-130 | |
| Chloroethane | ug/L | 50 | 45.5 | 91 | 64-134 | |
| Chloroform | ug/L | 50 | 50.4 | 101 | 70-130 | |
| Chloromethane | ug/L | 50 | 53.8 | 108 | 64-130 | |
| Chloroprene | ug/L | 50 | 50.9 | 102 | 70-130 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 49.1 | 98 | 70-131 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 46.5 | 93 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 57.6 | 115 | 70-130 | |
| Dibromomethane | ug/L | 50 | 51.3 | 103 | 70-131 | |
| Dichlorodifluoromethane | ug/L | 50 | 49.5 | 99 | 56-130 | |
| Ethyl methacrylate | ug/L | 50 | 60.7 | 121 | 70-130 | |
| Ethylbenzene | ug/L | 50 | 55.0 | 110 | 70-130 | |
| Hexachloro-1,3-butadiene | ug/L | 50 | 56.6 | 113 | 70-130 | |
| Iodomethane | ug/L | 100 | 110 | 110 | 49-180 | |
| Isobutanol | ug/L | 1000 | 1020 | 102 | 70-130 | |
| Methacrylonitrile | ug/L | 500 | 490 | 98 | 70-130 | |
| Methyl methacrylate | ug/L | 50 | 50.2 | 100 | 70-130 | |
| Methylene Chloride | ug/L | 50 | 45.1 | 90 | 63-130 | |
| Naphthalene | ug/L | 50 | 57.1 | 114 | 70-138 | |
| Propionitrile | ug/L | 500 | 493 | 99 | 70-130 | |
| Styrene | ug/L | 50 | 56.7 | 113 | 70-130 | |
| Tetrachloroethene | ug/L | 50 | 56.8 | 114 | 70-130 | |
| Toluene | ug/L | 50 | 51.4 | 103 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 47.9 | 96 | 70-130 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 48.3 | 97 | 70-132 | |
| trans-1,4-Dichloro-2-butene | ug/L | 50 | 61.8J | 124 | 70-141 | |
| Trichloroethene | ug/L | 50 | 51.1 | 102 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 50.2 | 100 | 62-133 | |
| Vinyl acetate | ug/L | 100 | 93.3 | 93 | 66-157 | |
| Vinyl chloride | ug/L | 50 | 37.8 | 76 | 69-130 | |
| Xylene (Total) | ug/L | 150 | 170 | 113 | 70-130 | |



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# QUALITY CONTROL DATA

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

LABORATORY CONTROL SAMPLE: 1030751

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | % | | | 91 | 70-130 | |
| 4-Bromofluorobenzene (S) | % | | | 95 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 95 | 70-130 | |
| Toluene-d8 (S) | % | | | 99 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1034787 1034788

| Parameter | Units | 92169059019 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ug/L | ND | 50 | 50 | 55.5 | 53.2 | 111 | 106 | 70-166 | 4 | 30 | |
| Benzene | ug/L | ND | 50 | 50 | 58.2 | 54.8 | 116 | 110 | 70-148 | 6 | 30 | |
| Chlorobenzene | ug/L | ND | 50 | 50 | 63.3 | 58.9 | 127 | 118 | 70-146 | 7 | 30 | |
| Toluene | ug/L | ND | 50 | 50 | 54.7 | 51.2 | 109 | 102 | 70-155 | 7 | 30 | |
| Trichloroethene | ug/L | ND | 50 | 50 | 60.6 | 58.0 | 121 | 116 | 69-151 | 4 | 30 | |
| 1,2-Dichloroethane-d4 (S) | % | | | | | | 99 | 95 | 70-130 | | | |
| 4-Bromofluorobenzene (S) | % | | | | | | 98 | 97 | 70-130 | | | |
| Dibromofluoromethane (S) | % | | | | | | 92 | 96 | 70-130 | | | |
| Toluene-d8 (S) | % | | | | | | 94 | 93 | 70-130 | | | |



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# QUALIFIERS

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

PASI-C Pace Analytical Services - Charlotte



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Wayne Closed MSWLF
Pace Project No.: 92169051

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **92169051001** | **SW-ByMW-2** | EPA 8260 | MSV/23962 | | |



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| Pace Analytical | Document Name: **Sample Condition Upon Receipt (SCUR)** | Document Revised: June 12, 2013 Page 1 of 2 |
|---|---|---|
| | Document Number: **F-CHR-CS-03-rev.11** | Issuing Authority: Pace Huntersville Quality Office |

Client Name: Municipal

**Where Received:** ☒ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

**Custody Seal on Cooler/Box Present:** ☐ yes ☒ no Seals intact: ☐ yes ☐ no

| Optional |
|---|
| Proj. Due Date: |
| Proj. Name: |

**Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

**Thermometer Used: IR Gun T1102 T1301** **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

**Temp Correction Factor** **T1102**: No Correction **T1301**: No Correction

**Corrected Cooler Temp.:** 2.9 C **Biological Tissue is Frozen:** Yes No N/A

**Date and Initials of person examining contents:** [illegible] 8/15/13

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☒Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☒Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☒Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☒Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☒Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☒No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☒No ☐N/A | 7. |
| Sufficient Volume: | ☒Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☒Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☒Yes ☐No ☐N/A | |
| Containers Intact: | ☒Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☒N/A | 11. |
| Sample Labels match COC: | ☐Yes ☒No ☐N/A | 12. no date/time on bottle |
| -Includes date/time/ID/Analysis Matrix:_____ | | |
| All containers needing preservation have been checked. | ☐Yes ☐No ☒N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☒N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☒Yes ☐No | |
| Samples checked for dechlorination: | ☐Yes ☐No ☒N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☒No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☒N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☒N/A | |
| Pace Trip Blank Lot # (if purchased):_____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**SCURF Review:** [illegible] **Date:** 8/15/13

**SRF Review:** [illegible] **Date:** 8/16/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

**WO#: 92169051**

92169051

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

**Section A**
Required Client Information:

| | |
|---|---|
| Company: | Municipal Engineering Services |
| Address: | P.O. Box 97 |
| | Garner, NC 27529 |
| Email To: | jpfohl@mesco.com |
| Phone: | 919-772-5393 Fax: |
| Requested Due Date/TAT: | 10 Day (Default) |

**Section B**
Required Project Information:

| | |
|---|---|
| Report To: | Jonathan Pfohl |
| Copy To: | |
| Purchase Order No. | |
| Client Project ID: | Wayne Closed MSWLF SW-ByMW-2 |
| Container Order Number: | |

**Section C**
Invoice Information:

| | |
|---|---|
| Attention: | Municipal Engineering Services |
| Company Name: | |
| Address: | |
| Pace Quote Reference: | |
| Pace Project Manager: | Kevin Godwin |
| Pace Profile #: | 2103-6 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| North Carolina |

Requested Analysis Filtered (Y/N)

| ITEM# | SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique) | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test | VOCs (Appendix II) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | Y/N | N | N | N | N | N | N | N | N | N | N | N | N |
| 1 | SW-ByMW-2 | WT | G | | | 8/14/13 | 11:40 | | | | | | 3 | | | | | | X | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | 8:00AM | | | | | | | | | | | | | | | | | | | | | | | |

MATRIX CODE

| Matrix | Code |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

92169051

001

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | [signature] / MESCO | 8/15/13 | 8:00AM | [signature] / pace | 8-15-13 | 9:15 | |
| | Left office | | | | | | |
| | [signature] / pace | 8/15/13 | 16:10 | [signature] | 8/15/13 | 16:10 | |

| SAMPLE CONDITIONS | |
|---|---|
| TEMP in C | |
| Received on Ice (Y/N) | Y |
| Custody Sealed Cooler (Y/N) | |
| Samples Intact (Y/N) | Y |

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jonathan Pfohl

SIGNATURE of SAMPLER: [signature] DATE Signed: 8/15/13

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August 28, 2013

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on August 16, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni for
Kevin Godwin
kevin.godwin@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Charlotte Certification IDs**

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

**Asheville Certification IDs**

2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222



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## SAMPLE SUMMARY

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **92169141001** | **EB** | Water | 08/15/13 17:15 | 08/16/13 14:15 |
| **92169141002** | **FB** | Water | 08/15/13 17:20 | 08/16/13 14:15 |
| **92169141003** | **TB** | Water | 08/15/13 00:00 | 08/16/13 14:15 |



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## SAMPLE ANALYTE COUNT

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **92169141001** | **EB** | EPA 6010 | JMW | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| | | SM 4500-CN-E | JDA | 1 | PASI-A |
| **92169141002** | **FB** | EPA 6010 | JMW | 16 | PASI-A |
| | | EPA 7470 | MTS | 1 | PASI-A |
| | | EPA 8260 | MCK | 68 | PASI-C |
| **92169141003** | **TB** | EPA 8260 | MCK | 68 | PASI-C |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: EB** **Lab ID: 92169141001** Collected: 08/15/13 17:15 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-38-2 | |
| Barium | ND | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:56 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 15:30 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 07:24 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/24/13 07:24 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/24/13 07:24 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 07:24 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/24/13 07:24 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:24 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 07:24 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 07:24 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 07:24 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 07:24 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 07:24 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 07:24 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:24 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 07:24 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 07:24 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 07:24 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 07:24 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/24/13 07:24 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 07:24 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 07:24 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:24 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 07:24 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 07:24 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/24/13 07:24 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 07:24 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: EB** **Lab ID: 92169141001** Collected: 08/15/13 17:15 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 07:24 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/24/13 07:24 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 07:24 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 07:24 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 07:24 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 07:24 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:24 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:24 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 07:24 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/24/13 07:24 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:24 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 07:24 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:24 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 07:24 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/24/13 07:24 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/24/13 07:24 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 07:24 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 07:24 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/24/13 07:24 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/24/13 07:24 | 126-98-7 | |
| Methylene Chloride | **6.7** | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 07:24 | 75-09-2 | C9 |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/24/13 07:24 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/24/13 07:24 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/24/13 07:24 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/24/13 07:24 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:24 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 07:24 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 07:24 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 07:24 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:24 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/24/13 07:24 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 07:24 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 07:24 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 07:24 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 07:24 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 07:24 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 07:24 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 07:24 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 07:24 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 98 | % | 70-130 | | 1 | | 08/24/13 07:24 | 460-00-4 | |
| Dibromofluoromethane (S) | 102 | % | 70-130 | | 1 | | 08/24/13 07:24 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 104 | % | 70-130 | | 1 | | 08/24/13 07:24 | 17060-07-0 | |
| Toluene-d8 (S) | 95 | % | 70-130 | | 1 | | 08/24/13 07:24 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: EB** **Lab ID: 92169141001** Collected: 08/15/13 17:15 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **4500CNE Cyanide, Total** | Analytical Method: SM 4500-CN-E | | | | | | | | |
| Cyanide | ND | ug/L | 10.0 | 5.0 | 1 | | 08/27/13 16:43 | 57-12-5 | |

## REPORT OF LABORATORY ANALYSIS

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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: FB** **Lab ID: 92169141002** Collected: 08/15/13 17:20 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-38-2 | |
| Barium | ND | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-28-0 | |
| Tin | ND | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-31-5 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:59 | 7440-66-6 | |
| **7470 Mercury** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | | |
| Mercury | ND | ug/L | 0.20 | 0.10 | 1 | 08/26/13 19:05 | 08/27/13 15:33 | 7439-97-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 07:39 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/24/13 07:39 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/24/13 07:39 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 07:39 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/24/13 07:39 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:39 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 07:39 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 07:39 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 07:39 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 07:39 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 07:39 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 07:39 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:39 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 07:39 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 07:39 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 07:39 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 07:39 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/24/13 07:39 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 07:39 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 07:39 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:39 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 07:39 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 07:39 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/24/13 07:39 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 07:39 | 106-46-7 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: FB** **Lab ID: 92169141002** Collected: 08/15/13 17:20 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 07:39 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/24/13 07:39 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 07:39 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 07:39 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 07:39 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 07:39 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:39 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:39 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 07:39 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/24/13 07:39 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:39 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 07:39 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:39 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 07:39 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/24/13 07:39 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/24/13 07:39 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 07:39 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 07:39 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/24/13 07:39 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/24/13 07:39 | 126-98-7 | |
| Methylene Chloride | **6.6** | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 07:39 | 75-09-2 | C9 |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/24/13 07:39 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/24/13 07:39 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/24/13 07:39 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/24/13 07:39 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:39 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 07:39 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 07:39 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 07:39 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:39 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/24/13 07:39 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 07:39 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 07:39 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 07:39 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 07:39 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 07:39 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 07:39 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 07:39 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 07:39 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 98 | % | 70-130 | | 1 | | 08/24/13 07:39 | 460-00-4 | |
| Dibromofluoromethane (S) | 103 | % | 70-130 | | 1 | | 08/24/13 07:39 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 103 | % | 70-130 | | 1 | | 08/24/13 07:39 | 17060-07-0 | |
| Toluene-d8 (S) | 95 | % | 70-130 | | 1 | | 08/24/13 07:39 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: TB** **Lab ID: 92169141003** Collected: 08/15/13 00:00 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 07:55 | 67-64-1 | |
| Acetonitrile | ND | ug/L | 55.0 | 2.2 | 1 | | 08/24/13 07:55 | 75-05-8 | |
| Acrolein | ND | ug/L | 53.0 | 1.6 | 1 | | 08/24/13 07:55 | 107-02-8 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 07:55 | 107-13-1 | |
| Allyl chloride | ND | ug/L | 10.0 | 1.5 | 1 | | 08/24/13 07:55 | 107-05-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:55 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 07:55 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 07:55 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 07:55 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 07:55 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 07:55 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 07:55 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 07:55 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 07:55 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 07:55 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 07:55 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 07:55 | 74-87-3 | |
| Chloroprene | ND | ug/L | 20.0 | 0.27 | 1 | | 08/24/13 07:55 | 126-99-8 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 07:55 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 07:55 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:55 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 07:55 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 07:55 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/L | 5.0 | 0.24 | 1 | | 08/24/13 07:55 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 07:55 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 07:55 | 110-57-6 | |
| Dichlorodifluoromethane | ND | ug/L | 5.0 | 0.21 | 1 | | 08/24/13 07:55 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 07:55 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 07:55 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 07:55 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 07:55 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:55 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 07:55 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 07:55 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/L | 15.0 | 0.13 | 1 | | 08/24/13 07:55 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 07:55 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 07:55 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:55 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 07:55 | 100-41-4 | |
| Ethyl methacrylate | ND | ug/L | 10.0 | 0.20 | 1 | | 08/24/13 07:55 | 97-63-2 | |
| Hexachloro-1,3-butadiene | ND | ug/L | 10.0 | 0.71 | 1 | | 08/24/13 07:55 | 87-68-3 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 07:55 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 07:55 | 74-88-4 | |
| Isobutanol | ND | ug/L | 100 | 35.0 | 1 | | 08/24/13 07:55 | 78-83-1 | |
| Methacrylonitrile | ND | ug/L | 100 | 0.93 | 1 | | 08/24/13 07:55 | 126-98-7 | |
| Methylene Chloride | **2.1** | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 07:55 | 75-09-2 | C9 |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

**Sample: TB** **Lab ID: 92169141003** Collected: 08/15/13 00:00 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Methyl methacrylate | ND | ug/L | 30.0 | 2.0 | 1 | | 08/24/13 07:55 | 80-62-6 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/24/13 07:55 | 108-10-1 | |
| Naphthalene | ND | ug/L | 10.0 | 0.24 | 1 | | 08/24/13 07:55 | 91-20-3 | |
| Propionitrile | ND | ug/L | 150 | 3.6 | 1 | | 08/24/13 07:55 | 107-12-0 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:55 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 07:55 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 07:55 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 07:55 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 07:55 | 108-88-3 | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 10.0 | 0.35 | 1 | | 08/24/13 07:55 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 07:55 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 07:55 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 07:55 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 07:55 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 07:55 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 07:55 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 07:55 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 07:55 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 99 | % | 70-130 | | 1 | | 08/24/13 07:55 | 460-00-4 | |
| Dibromofluoromethane (S) | 104 | % | 70-130 | | 1 | | 08/24/13 07:55 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 103 | % | 70-130 | | 1 | | 08/24/13 07:55 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | 70-130 | | 1 | | 08/24/13 07:55 | 2037-26-5 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

QC Batch: MERP/5512 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Associated Lab Samples: 92169141001, 92169141002

METHOD BLANK: 1035170 — Matrix: Water
Associated Lab Samples: 92169141001, 92169141002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | ug/L | ND | 0.20 | 08/27/13 14:21 | |

LABORATORY CONTROL SAMPLE: 1035171

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 2.5 | 2.1 | 85 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035172 — 1035173

| Parameter | Units | 92169058003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | ND | 2.5 | 2.5 | 2.4 | 2.5 | 93 | 97 | 75-125 | 3 | 25 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

QC Batch: MPRP/14007
Analysis Method: EPA 6010
QC Batch Method: SM 3030C
Analysis Description: 6010 MET 3030C
Associated Lab Samples: 92169141001, 92169141002

METHOD BLANK: 1031369
Matrix: Water
Associated Lab Samples: 92169141001, 92169141002

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Antimony | ug/L | ND | 6.0 | 08/27/13 18:51 | |
| Arsenic | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Barium | ug/L | ND | 100 | 08/27/13 18:51 | |
| Beryllium | ug/L | ND | 1.0 | 08/27/13 18:51 | |
| Cadmium | ug/L | ND | 1.0 | 08/27/13 18:51 | |
| Chromium | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Cobalt | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Copper | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Lead | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Nickel | ug/L | ND | 50.0 | 08/27/13 18:51 | |
| Selenium | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Silver | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Thallium | ug/L | ND | 5.5 | 08/27/13 18:51 | |
| Tin | ug/L | ND | 100 | 08/27/13 18:51 | |
| Vanadium | ug/L | ND | 25.0 | 08/27/13 18:51 | |
| Zinc | ug/L | ND | 10.0 | 08/27/13 18:51 | |

LABORATORY CONTROL SAMPLE: 1031370

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 500 | 488 | 98 | 80-120 | |
| Arsenic | ug/L | 500 | 495 | 99 | 80-120 | |
| Barium | ug/L | 500 | 471 | 94 | 80-120 | |
| Beryllium | ug/L | 500 | 502 | 100 | 80-120 | |
| Cadmium | ug/L | 500 | 493 | 99 | 80-120 | |
| Chromium | ug/L | 500 | 466 | 93 | 80-120 | |
| Cobalt | ug/L | 500 | 475 | 95 | 80-120 | |
| Copper | ug/L | 500 | 462 | 92 | 80-120 | |
| Lead | ug/L | 500 | 498 | 100 | 80-120 | |
| Nickel | ug/L | 500 | 490 | 98 | 80-120 | |
| Selenium | ug/L | 500 | 561 | 112 | 80-120 | |
| Silver | ug/L | 250 | 246 | 98 | 80-120 | |
| Thallium | ug/L | 500 | 475 | 95 | 80-120 | |
| Tin | ug/L | 500 | 496 | 99 | 80-120 | |
| Vanadium | ug/L | 500 | 468 | 94 | 80-120 | |
| Zinc | ug/L | 500 | 547 | 109 | 80-120 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031371 1031372

| Parameter | Units | 92169059012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | ND | 500 | 500 | 446 | 456 | 89 | 91 | 75-125 | 2 | 20 | |
| Arsenic | ug/L | ND | 500 | 500 | 463 | 475 | 92 | 94 | 75-125 | 3 | 20 | |
| Barium | ug/L | 18.0J | 500 | 500 | 468 | 485 | 90 | 93 | 75-125 | 4 | 20 | |
| Beryllium | ug/L | ND | 500 | 500 | 463 | 485 | 93 | 97 | 75-125 | 5 | 20 | |
| Cadmium | ug/L | ND | 500 | 500 | 469 | 482 | 94 | 96 | 75-125 | 3 | 20 | |
| Chromium | ug/L | ND | 500 | 500 | 451 | 464 | 90 | 93 | 75-125 | 3 | 20 | |
| Cobalt | ug/L | ND | 500 | 500 | 454 | 468 | 91 | 93 | 75-125 | 3 | 20 | |
| Copper | ug/L | ND | 500 | 500 | 449 | 464 | 89 | 92 | 75-125 | 3 | 20 | |
| Lead | ug/L | ND | 500 | 500 | 475 | 486 | 94 | 96 | 75-125 | 2 | 20 | |
| Nickel | ug/L | ND | 500 | 500 | 467 | 482 | 93 | 96 | 75-125 | 3 | 20 | |
| Selenium | ug/L | ND | 500 | 500 | 477 | 491 | 95 | 98 | 75-125 | 3 | 20 | |
| Silver | ug/L | ND | 250 | 250 | 237 | 243 | 95 | 97 | 75-125 | 2 | 20 | |
| Thallium | ug/L | 9.1 | 500 | 500 | 458 | 473 | 90 | 93 | 75-125 | 3 | 20 | |
| Tin | ug/L | ND | 500 | 500 | 475 | 493 | 95 | 98 | 75-125 | 4 | 20 | |
| Vanadium | ug/L | 10.6J | 500 | 500 | 465 | 481 | 91 | 94 | 75-125 | 3 | 20 | |
| Zinc | ug/L | ND | 500 | 500 | 492 | 506 | 97 | 100 | 75-125 | 3 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

QC Batch: MSV/24030 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92169141001, 92169141002, 92169141003

METHOD BLANK: 1034789 Matrix: Water
Associated Lab Samples: 92169141001, 92169141002, 92169141003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,1,1-Trichloroethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| 1,1,2-Trichloroethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,1-Dichloroethane | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,1-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,1-Dichloropropene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,2,3-Trichloropropane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,2,4-Trichlorobenzene | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 13.0 | 08/24/13 01:52 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,2-Dichlorobenzene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,2-Dichloroethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,2-Dichloropropane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,3-Dichlorobenzene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,3-Dichloropropane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,4-Dichlorobenzene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 2,2-Dichloropropane | ug/L | ND | 15.0 | 08/24/13 01:52 | |
| 2-Butanone (MEK) | ug/L | ND | 100 | 08/24/13 01:52 | |
| 2-Hexanone | ug/L | ND | 50.0 | 08/24/13 01:52 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 100 | 08/24/13 01:52 | |
| Acetone | ug/L | ND | 100 | 08/24/13 01:52 | |
| Acetonitrile | ug/L | ND | 55.0 | 08/24/13 01:52 | |
| Acrolein | ug/L | ND | 53.0 | 08/24/13 01:52 | |
| Acrylonitrile | ug/L | ND | 200 | 08/24/13 01:52 | |
| Allyl chloride | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Benzene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Bromochloromethane | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Bromodichloromethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Bromoform | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Bromomethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Carbon disulfide | ug/L | ND | 100 | 08/24/13 01:52 | |
| Carbon tetrachloride | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Chlorobenzene | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Chloroethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Chloroform | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| Chloromethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Chloroprene | ug/L | ND | 20.0 | 08/24/13 01:52 | |
| cis-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| cis-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Dibromochloromethane | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Dibromomethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Dichlorodifluoromethane | ug/L | ND | 5.0 | 08/24/13 01:52 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

METHOD BLANK: 1034789 Matrix: Water

Associated Lab Samples: 92169141001, 92169141002, 92169141003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Ethyl methacrylate | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Ethylbenzene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Hexachloro-1,3-butadiene | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Iodomethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Isobutanol | ug/L | ND | 100 | 08/24/13 01:52 | |
| Methacrylonitrile | ug/L | ND | 100 | 08/24/13 01:52 | |
| Methyl methacrylate | ug/L | ND | 30.0 | 08/24/13 01:52 | |
| Methylene Chloride | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Naphthalene | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Propionitrile | ug/L | ND | 150 | 08/24/13 01:52 | |
| Styrene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Tetrachloroethene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Toluene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| trans-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| trans-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| trans-1,4-Dichloro-2-butene | ug/L | ND | 100 | 08/24/13 01:52 | |
| Trichloroethene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Trichlorofluoromethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Vinyl acetate | ug/L | ND | 50.0 | 08/24/13 01:52 | |
| Vinyl chloride | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Xylene (Total) | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,2-Dichloroethane-d4 (S) | % | 100 | 70-130 | 08/24/13 01:52 | |
| 4-Bromofluorobenzene (S) | % | 100 | 70-130 | 08/24/13 01:52 | |
| Dibromofluoromethane (S) | % | 99 | 70-130 | 08/24/13 01:52 | |
| Toluene-d8 (S) | % | 94 | 70-130 | 08/24/13 01:52 | |

LABORATORY CONTROL SAMPLE: 1034790

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 55.8 | 112 | 70-130 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 52.3 | 105 | 70-130 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 54.7 | 109 | 70-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 52.0 | 104 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 51.2 | 102 | 70-130 | |
| 1,1-Dichloroethene | ug/L | 50 | 52.3 | 105 | 70-132 | |
| 1,1-Dichloropropene | ug/L | 50 | 49.5 | 99 | 70-130 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 52.5 | 105 | 70-130 | |
| 1,2,4-Trichlorobenzene | ug/L | 50 | 56.6 | 113 | 70-134 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 57.2 | 114 | 70-130 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 56.0 | 112 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 60.6 | 121 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 50.6 | 101 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 46.9 | 94 | 70-130 | |
| 1,3-Dichlorobenzene | ug/L | 50 | 59.2 | 118 | 70-130 | |
| 1,3-Dichloropropane | ug/L | 50 | 51.6 | 103 | 70-130 | |



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(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

LABORATORY CONTROL SAMPLE: 1034790

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ug/L | 50 | 59.2 | 118 | 70-130 | |
| 2,2-Dichloropropane | ug/L | 50 | 41.4 | 83 | 58-145 | |
| 2-Butanone (MEK) | ug/L | 100 | 102 | 102 | 70-145 | |
| 2-Hexanone | ug/L | 100 | 113 | 113 | 70-144 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 100 | 104 | 104 | 70-140 | |
| Acetone | ug/L | 100 | 94.6J | 95 | 50-175 | |
| Acetonitrile | ug/L | 500 | 486 | 97 | 70-130 | |
| Acrolein | ug/L | 250 | 240 | 96 | 70-130 | |
| Acrylonitrile | ug/L | 250 | 251 | 100 | 70-143 | |
| Allyl chloride | ug/L | 50 | 52.1 | 104 | 70-130 | |
| Benzene | ug/L | 50 | 51.4 | 103 | 70-130 | |
| Bromochloromethane | ug/L | 50 | 51.3 | 103 | 70-130 | |
| Bromodichloromethane | ug/L | 50 | 50.2 | 100 | 70-130 | |
| Bromoform | ug/L | 50 | 57.6 | 115 | 70-130 | |
| Bromomethane | ug/L | 50 | 54.4 | 109 | 54-130 | |
| Carbon disulfide | ug/L | 50 | 51.6J | 103 | 70-131 | |
| Carbon tetrachloride | ug/L | 50 | 48.4 | 97 | 70-132 | |
| Chlorobenzene | ug/L | 50 | 54.6 | 109 | 70-130 | |
| Chloroethane | ug/L | 50 | 42.5 | 85 | 64-134 | |
| Chloroform | ug/L | 50 | 52.4 | 105 | 70-130 | |
| Chloromethane | ug/L | 50 | 58.7 | 117 | 64-130 | |
| Chloroprene | ug/L | 50 | 53.7 | 107 | 70-130 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 50.2 | 100 | 70-131 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 45.9 | 92 | 70-130 | |
| Dibromochloromethane | ug/L | 50 | 55.8 | 112 | 70-130 | |
| Dibromomethane | ug/L | 50 | 49.5 | 99 | 70-131 | |
| Dichlorodifluoromethane | ug/L | 50 | 51.5 | 103 | 56-130 | |
| Ethyl methacrylate | ug/L | 50 | 59.1 | 118 | 70-130 | |
| Ethylbenzene | ug/L | 50 | 53.8 | 108 | 70-130 | |
| Hexachloro-1,3-butadiene | ug/L | 50 | 53.9 | 108 | 70-130 | |
| Iodomethane | ug/L | 100 | 126 | 126 | 49-180 | |
| Isobutanol | ug/L | 1000 | 1050 | 105 | 70-130 | |
| Methacrylonitrile | ug/L | 500 | 496 | 99 | 70-130 | |
| Methyl methacrylate | ug/L | 50 | 48.6 | 97 | 70-130 | |
| Methylene Chloride | ug/L | 50 | 47.1 | 94 | 63-130 | |
| Naphthalene | ug/L | 50 | 55.7 | 111 | 70-138 | |
| Propionitrile | ug/L | 500 | 498 | 100 | 70-130 | |
| Styrene | ug/L | 50 | 55.5 | 111 | 70-130 | |
| Tetrachloroethene | ug/L | 50 | 55.4 | 111 | 70-130 | |
| Toluene | ug/L | 50 | 50.9 | 102 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 50.3 | 101 | 70-130 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 47.5 | 95 | 70-132 | |
| trans-1,4-Dichloro-2-butene | ug/L | 50 | 60.5J | 121 | 70-141 | |
| Trichloroethene | ug/L | 50 | 50.8 | 102 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 50.5 | 101 | 62-133 | |
| Vinyl acetate | ug/L | 100 | 95.5 | 95 | 66-157 | |
| Vinyl chloride | ug/L | 50 | 39.3 | 79 | 69-130 | |
| Xylene (Total) | ug/L | 150 | 167 | 111 | 70-130 | |



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(704)875-9092

# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

LABORATORY CONTROL SAMPLE: 1034790

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | % | | | 95 | 70-130 | |
| 4-Bromofluorobenzene (S) | % | | | 95 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 99 | 70-130 | |
| Toluene-d8 (S) | % | | | 98 | 70-130 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

QC Batch: WETA/16254
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92169141001

METHOD BLANK: 1035868
Matrix: Water
Associated Lab Samples: 92169141001

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 10.0 | 08/27/13 16:25 | |

LABORATORY CONTROL SAMPLE: 1035869

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Cyanide | ug/L | 100 | 102 | 102 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035870 1035871

| Parameter | Units | 92169042001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | ND | 100 | 100 | 27.6 | 27.1 | 23 | 23 | 75-125 | 2 | 20 | M1 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1035872 1035873

| Parameter | Units | 92168567009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyanide | ug/L | 0.030 mg/L | 100 | 100 | 133 | 120 | 103 | 90 | 75-125 | 10 | 20 | |



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# QUALIFIERS

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

| | |
|---|---|
| PASI-A | Pace Analytical Services - Asheville |
| PASI-C | Pace Analytical Services - Charlotte |

## ANALYTE QUALIFIERS

| | |
|---|---|
| C9 | Common Laboratory Contaminant. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Wayne MSWLF Blanks
Pace Project No.: 92169141

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **92169141001** | **EB** | SM 3030C | MPRP/14007 | EPA 6010 | ICP/12748 |
| **92169141002** | **FB** | SM 3030C | MPRP/14007 | EPA 6010 | ICP/12748 |
| **92169141001** | **EB** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169141002** | **FB** | EPA 7470 | MERP/5512 | EPA 7470 | MERC/5343 |
| **92169141001** | **EB** | EPA 8260 | MSV/24030 | | |
| **92169141002** | **FB** | EPA 8260 | MSV/24030 | | |
| **92169141003** | **TB** | EPA 8260 | MSV/24030 | | |
| **92169141001** | **EB** | SM 4500-CN-E | WETA/16254 | | |



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| Pace Analytical | Document Name: **Sample Condition Upon Receipt (SCUR)** | Document Revised: June 12, 2013 Page 1 of 2 |
|---|---|---|
| | Document Number: **F-CHR-CS-03-rev.11** | Issuing Authority: Pace Huntersville Quality Office |

Client Name: Mun.

**Where Received:** ☑ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other_____

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

**Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

**Thermometer Used: IR Gun T1102 T1301** **Type of Ice:** (Wet) Blue None ☐ Samples on ice, cooling process has begun

**Temp Correction Factor** **T1102**: No Correction **T1301**: No Correction

**Corrected Cooler Temp.:** 2.1 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

**Date and Initials of person examining contents:** 1m 8/16

| | | **Comments:** |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix:_____ | | |
| All containers needing preservation have been checked. | ☑Yes ☐No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☑Yes ☐No ☐N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☑No | |
| Samples checked for dechlorination: | ☑Yes ☐No ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☑Yes ☐No ☐N/A | 16. |
| Trip Blank Custody Seals Present | ☑Yes ☐No ☐N/A | |
| Pace Trip Blank Lot # (if purchased):_____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**SCURF Review:** JG **Date:** 8/16/13

**SRF Review:** JG **Date:** 8/17/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92169141

92169141

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

**Section A**
**Required Client Information:**

| | |
|---|---|
| Company: | Municipal Engineering Services |
| Address: | P.O. Box 97 |
| | Garner, NC 27529 |
| Email To: | jpfohl@mesco.com |
| Phone: | 919-772-5393 Fax: |
| Requested Due Date/TAT: | 10 Day (Default) |

**Section B**
**Required Project Information:**

| | |
|---|---|
| Report To: | Jonathan Pfohl |
| Copy To: | |
| Purchase Order No. | |
| Client Project ID: | Wayne MSWLF Blanks |
| Container Order Number: | |

**Section C**
**Invoice Information:**

| | |
|---|---|
| Attention: | Municipal Engineering Services |
| Company Name: | |
| Address: | |
| Pace Quote Reference: | |
| Pace Project Manager: | Kevin Godwin |
| Pace Profile #: | |

| Regulatory Agency |
|---|
| SWS |
| **State / Location** |
| North Carolina |

**SAMPLE ID**
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM# | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | | | 8260 App II VOCs (N) | Metals-App II (3030C Prep) (Y) | | Cyanide (N) | | | | | | 92169141 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EB | WT | G | | | 8/15/13 | 5:15 | | 8 | 4 | | 1 | 3 | | | | | | | | X | X | | X | | | | | | | 001 |
| 2 | FB | WT | G | | | 8/15/13 | 5:20 | | 4 | | | 1 | 3 | | | | | | | | X | X | | | | | | | | | 002 |
| 3 | TB | WT | G | | Pace | Filled | | | 2 | | | | 2 | | | | | | | | X | | | | | | | | | | 003 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|---|
| Pace Provided DI $H_2O$ | / MESCO | 8/16/13 | 7:00am | Pace | 8/16 | 9:00 |
| EB - Rinsate through Geotech Bailers & Poly tube | Pace | 8-16-13 | 1415 | Smoke Pace | 8.16.13 | 1415 |
| & Western Safety Nitrile gloves. | | | | | | |

| SAMPLE CONDITIONS | | | |
|---|---|---|---|
| TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
| 2.1 | Y | N | Y |

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER: Jonathan Pfohl

SIGNATURE of SAMPLER: [signature] DATE Signed: 8/15/13

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September 12, 2013

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on August 16, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures



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# CERTIFICATIONS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Charlotte Certification IDs**
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

**Asheville Certification IDs**
2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222



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## SAMPLE SUMMARY

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **92169154001** | **SW-2** | Water | 08/15/13 15:35 | 08/16/13 14:15 |
| **92169154002** | **SW-3** | Water | 08/15/13 16:15 | 08/16/13 14:15 |
| **92169154003** | **SW-1** | Water | 08/15/13 15:55 | 08/16/13 14:15 |



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## SAMPLE ANALYTE COUNT

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **92169154001** | **SW-2** | EPA 6010 | JMW | 15 | PASI-A |
| | | EPA 8260 | MCK | 52 | PASI-C |
| **92169154002** | **SW-3** | EPA 6010 | JMW | 15 | PASI-A |
| | | EPA 8260 | MCK | 52 | PASI-C |
| **92169154003** | **SW-1** | EPA 6010 | JMW | 15 | PASI-A |
| | | EPA 8260 | MCK | 52 | PASI-C |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Sample: SW-2** **Lab ID: 92169154001** Collected: 08/15/13 15:35 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-38-2 | |
| Barium | **51.5J** | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-28-0 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:43 | 7440-66-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 08:11 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 08:11 | 107-13-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 08:11 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 08:11 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 08:11 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 08:11 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 08:11 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 08:11 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 08:11 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 08:11 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 08:11 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 08:11 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 08:11 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 08:11 | 74-87-3 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 08:11 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 08:11 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 08:11 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 08:11 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 08:11 | 95-50-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 08:11 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 08:11 | 110-57-6 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 08:11 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 08:11 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 08:11 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 08:11 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 08:11 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 08:11 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 08:11 | 142-28-9 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 08:11 | 10061-01-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Sample: SW-2** **Lab ID: 92169154001** Collected: 08/15/13 15:35 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:11 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 08:11 | 100-41-4 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 08:11 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 08:11 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 08:11 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/24/13 08:11 | 108-10-1 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:11 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 08:11 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 08:11 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 08:11 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:11 | 108-88-3 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 08:11 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 08:11 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 08:11 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 08:11 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 08:11 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 08:11 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 08:11 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 08:11 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 98 | % | 70-130 | | 1 | | 08/24/13 08:11 | 460-00-4 | |
| Dibromofluoromethane (S) | 102 | % | 70-130 | | 1 | | 08/24/13 08:11 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 106 | % | 70-130 | | 1 | | 08/24/13 08:11 | 17060-07-0 | |
| Toluene-d8 (S) | 95 | % | 70-130 | | 1 | | 08/24/13 08:11 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Sample: SW-3** **Lab ID: 92169154002** Collected: 08/15/13 16:15 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-38-2 | |
| Barium | **79.6J** | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-28-0 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:49 | 7440-66-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 08:27 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 08:27 | 107-13-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 08:27 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 08:27 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 08:27 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 08:27 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 08:27 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 08:27 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 08:27 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 08:27 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 08:27 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 08:27 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 08:27 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 08:27 | 74-87-3 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 08:27 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 08:27 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 08:27 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 08:27 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 08:27 | 95-50-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 08:27 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 08:27 | 110-57-6 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 08:27 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 08:27 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 08:27 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 08:27 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 08:27 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 08:27 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 08:27 | 142-28-9 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 08:27 | 10061-01-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Sample: SW-3** **Lab ID: 92169154002** Collected: 08/15/13 16:15 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:27 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 08:27 | 100-41-4 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 08:27 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 08:27 | 74-88-4 | |
| Methylene Chloride | **1.0** | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 08:27 | 75-09-2 | C9 |
| 4-Methyl-2-pentanone (MIBK) | **0.54J** | ug/L | 100 | 0.33 | 1 | | 08/24/13 08:27 | 108-10-1 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:27 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 08:27 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 08:27 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 08:27 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:27 | 108-88-3 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 08:27 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 08:27 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 08:27 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 08:27 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 08:27 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 08:27 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 08:27 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 08:27 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 98 | % | 70-130 | | 1 | | 08/24/13 08:27 | 460-00-4 | |
| Dibromofluoromethane (S) | 102 | % | 70-130 | | 1 | | 08/24/13 08:27 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 104 | % | 70-130 | | 1 | | 08/24/13 08:27 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | 70-130 | | 1 | | 08/24/13 08:27 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Sample: SW-1** **Lab ID: 92169154003** Collected: 08/15/13 15:55 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, 3030C** | Analytical Method: EPA 6010 Preparation Method: SM 3030C | | | | | | | | |
| Antimony | ND | ug/L | 6.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-36-0 | |
| Arsenic | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-38-2 | |
| Barium | **79.3J** | ug/L | 100 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-39-3 | |
| Beryllium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-41-7 | |
| Cadmium | ND | ug/L | 1.0 | 1.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-43-9 | |
| Chromium | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-47-3 | |
| Cobalt | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-48-4 | |
| Copper | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-50-8 | |
| Lead | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7439-92-1 | |
| Nickel | ND | ug/L | 50.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-02-0 | |
| Selenium | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7782-49-2 | |
| Silver | ND | ug/L | 10.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-22-4 | |
| Thallium | ND | ug/L | 5.5 | 5.5 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-28-0 | |
| Vanadium | ND | ug/L | 25.0 | 5.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-62-2 | |
| Zinc | ND | ug/L | 10.0 | 10.0 | 1 | 08/17/13 11:00 | 08/27/13 19:46 | 7440-66-6 | |
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | ND | ug/L | 100 | 10.0 | 1 | | 08/24/13 08:43 | 67-64-1 | |
| Acrylonitrile | ND | ug/L | 200 | 1.9 | 1 | | 08/24/13 08:43 | 107-13-1 | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 08:43 | 71-43-2 | |
| Bromochloromethane | ND | ug/L | 3.0 | 0.17 | 1 | | 08/24/13 08:43 | 74-97-5 | |
| Bromodichloromethane | ND | ug/L | 1.0 | 0.18 | 1 | | 08/24/13 08:43 | 75-27-4 | |
| Bromoform | ND | ug/L | 3.0 | 0.26 | 1 | | 08/24/13 08:43 | 75-25-2 | |
| Bromomethane | ND | ug/L | 10.0 | 0.29 | 1 | | 08/24/13 08:43 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/L | 100 | 0.96 | 1 | | 08/24/13 08:43 | 78-93-3 | |
| Carbon disulfide | ND | ug/L | 100 | 1.2 | 1 | | 08/24/13 08:43 | 75-15-0 | |
| Carbon tetrachloride | ND | ug/L | 1.0 | 0.25 | 1 | | 08/24/13 08:43 | 56-23-5 | |
| Chlorobenzene | ND | ug/L | 3.0 | 0.23 | 1 | | 08/24/13 08:43 | 108-90-7 | |
| Chloroethane | ND | ug/L | 10.0 | 0.54 | 1 | | 08/24/13 08:43 | 75-00-3 | |
| Chloroform | ND | ug/L | 5.0 | 0.14 | 1 | | 08/24/13 08:43 | 67-66-3 | |
| Chloromethane | ND | ug/L | 1.0 | 0.11 | 1 | | 08/24/13 08:43 | 74-87-3 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 13.0 | 2.5 | 1 | | 08/24/13 08:43 | 96-12-8 | |
| Dibromochloromethane | ND | ug/L | 3.0 | 0.21 | 1 | | 08/24/13 08:43 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 08:43 | 106-93-4 | |
| Dibromomethane | ND | ug/L | 10.0 | 0.21 | 1 | | 08/24/13 08:43 | 74-95-3 | |
| 1,2-Dichlorobenzene | ND | ug/L | 5.0 | 0.30 | 1 | | 08/24/13 08:43 | 95-50-1 | |
| 1,4-Dichlorobenzene | ND | ug/L | 1.0 | 0.33 | 1 | | 08/24/13 08:43 | 106-46-7 | |
| trans-1,4-Dichloro-2-butene | ND | ug/L | 100 | 1.0 | 1 | | 08/24/13 08:43 | 110-57-6 | |
| 1,1-Dichloroethane | ND | ug/L | 5.0 | 0.32 | 1 | | 08/24/13 08:43 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/L | 1.0 | 0.12 | 1 | | 08/24/13 08:43 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/L | 5.0 | 0.56 | 1 | | 08/24/13 08:43 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.19 | 1 | | 08/24/13 08:43 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/L | 5.0 | 0.49 | 1 | | 08/24/13 08:43 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/L | 1.0 | 0.27 | 1 | | 08/24/13 08:43 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/L | 1.0 | 0.28 | 1 | | 08/24/13 08:43 | 142-28-9 | |
| cis-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.13 | 1 | | 08/24/13 08:43 | 10061-01-5 | |



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# ANALYTICAL RESULTS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

**Sample: SW-1** **Lab ID: 92169154003** Collected: 08/15/13 15:55 Received: 08/16/13 14:15 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260 MSV Low Level Landfill** | Analytical Method: EPA 8260 | | | | | | | | |
| trans-1,3-Dichloropropene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:43 | 10061-02-6 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 08/24/13 08:43 | 100-41-4 | |
| 2-Hexanone | ND | ug/L | 50.0 | 0.46 | 1 | | 08/24/13 08:43 | 591-78-6 | |
| Iodomethane | ND | ug/L | 10.0 | 0.32 | 1 | | 08/24/13 08:43 | 74-88-4 | |
| Methylene Chloride | ND | ug/L | 1.0 | 0.97 | 1 | | 08/24/13 08:43 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 100 | 0.33 | 1 | | 08/24/13 08:43 | 108-10-1 | |
| Styrene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:43 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | 5.0 | 0.33 | 1 | | 08/24/13 08:43 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 3.0 | 0.40 | 1 | | 08/24/13 08:43 | 79-34-5 | |
| Tetrachloroethene | ND | ug/L | 1.0 | 0.46 | 1 | | 08/24/13 08:43 | 127-18-4 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 08/24/13 08:43 | 108-88-3 | |
| 1,1,1-Trichloroethane | ND | ug/L | 1.0 | 0.48 | 1 | | 08/24/13 08:43 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/L | 1.0 | 0.29 | 1 | | 08/24/13 08:43 | 79-00-5 | |
| Trichloroethene | ND | ug/L | 1.0 | 0.47 | 1 | | 08/24/13 08:43 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/L | 1.0 | 0.20 | 1 | | 08/24/13 08:43 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/L | 1.0 | 0.41 | 1 | | 08/24/13 08:43 | 96-18-4 | |
| Vinyl acetate | ND | ug/L | 50.0 | 0.35 | 1 | | 08/24/13 08:43 | 108-05-4 | |
| Vinyl chloride | ND | ug/L | 1.0 | 0.62 | 1 | | 08/24/13 08:43 | 75-01-4 | |
| Xylene (Total) | ND | ug/L | 5.0 | 0.66 | 1 | | 08/24/13 08:43 | 1330-20-7 | |
| ***Surrogates*** | | | | | | | | | |
| 4-Bromofluorobenzene (S) | 96 | % | 70-130 | | 1 | | 08/24/13 08:43 | 460-00-4 | |
| Dibromofluoromethane (S) | 103 | % | 70-130 | | 1 | | 08/24/13 08:43 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 105 | % | 70-130 | | 1 | | 08/24/13 08:43 | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | 70-130 | | 1 | | 08/24/13 08:43 | 2037-26-5 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

QC Batch: MPRP/14007 Analysis Method: EPA 6010
QC Batch Method: SM 3030C Analysis Description: 6010 MET 3030C
Associated Lab Samples: 92169154001, 92169154002, 92169154003

METHOD BLANK: 1031369 Matrix: Water
Associated Lab Samples: 92169154001, 92169154002, 92169154003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Antimony | ug/L | ND | 6.0 | 08/27/13 18:51 | |
| Arsenic | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Barium | ug/L | ND | 100 | 08/27/13 18:51 | |
| Beryllium | ug/L | ND | 1.0 | 08/27/13 18:51 | |
| Cadmium | ug/L | ND | 1.0 | 08/27/13 18:51 | |
| Chromium | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Cobalt | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Copper | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Lead | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Nickel | ug/L | ND | 50.0 | 08/27/13 18:51 | |
| Selenium | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Silver | ug/L | ND | 10.0 | 08/27/13 18:51 | |
| Thallium | ug/L | ND | 5.5 | 08/27/13 18:51 | |
| Vanadium | ug/L | ND | 25.0 | 08/27/13 18:51 | |
| Zinc | ug/L | ND | 10.0 | 08/27/13 18:51 | |

LABORATORY CONTROL SAMPLE: 1031370

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 500 | 488 | 98 | 80-120 | |
| Arsenic | ug/L | 500 | 495 | 99 | 80-120 | |
| Barium | ug/L | 500 | 471 | 94 | 80-120 | |
| Beryllium | ug/L | 500 | 502 | 100 | 80-120 | |
| Cadmium | ug/L | 500 | 493 | 99 | 80-120 | |
| Chromium | ug/L | 500 | 466 | 93 | 80-120 | |
| Cobalt | ug/L | 500 | 475 | 95 | 80-120 | |
| Copper | ug/L | 500 | 462 | 92 | 80-120 | |
| Lead | ug/L | 500 | 498 | 100 | 80-120 | |
| Nickel | ug/L | 500 | 490 | 98 | 80-120 | |
| Selenium | ug/L | 500 | 561 | 112 | 80-120 | |
| Silver | ug/L | 250 | 246 | 98 | 80-120 | |
| Thallium | ug/L | 500 | 475 | 95 | 80-120 | |
| Vanadium | ug/L | 500 | 468 | 94 | 80-120 | |
| Zinc | ug/L | 500 | 547 | 109 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031371 1031372

| Parameter | Units | 92169059012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | ND | 500 | 500 | 446 | 456 | 89 | 91 | 75-125 | 2 | 20 | |

## REPORT OF LABORATORY ANALYSIS

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# QUALITY CONTROL DATA

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031371 1031372

| Parameter | Units | 92169059012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ug/L | ND | 500 | 500 | 463 | 475 | 92 | 94 | 75-125 | 3 | 20 | |
| Barium | ug/L | 18.0J | 500 | 500 | 468 | 485 | 90 | 93 | 75-125 | 4 | 20 | |
| Beryllium | ug/L | ND | 500 | 500 | 463 | 485 | 93 | 97 | 75-125 | 5 | 20 | |
| Cadmium | ug/L | ND | 500 | 500 | 469 | 482 | 94 | 96 | 75-125 | 3 | 20 | |
| Chromium | ug/L | ND | 500 | 500 | 451 | 464 | 90 | 93 | 75-125 | 3 | 20 | |
| Cobalt | ug/L | ND | 500 | 500 | 454 | 468 | 91 | 93 | 75-125 | 3 | 20 | |
| Copper | ug/L | ND | 500 | 500 | 449 | 464 | 89 | 92 | 75-125 | 3 | 20 | |
| Lead | ug/L | ND | 500 | 500 | 475 | 486 | 94 | 96 | 75-125 | 2 | 20 | |
| Nickel | ug/L | ND | 500 | 500 | 467 | 482 | 93 | 96 | 75-125 | 3 | 20 | |
| Selenium | ug/L | ND | 500 | 500 | 477 | 491 | 95 | 98 | 75-125 | 3 | 20 | |
| Silver | ug/L | ND | 250 | 250 | 237 | 243 | 95 | 97 | 75-125 | 2 | 20 | |
| Thallium | ug/L | 9.1 | 500 | 500 | 458 | 473 | 90 | 93 | 75-125 | 3 | 20 | |
| Vanadium | ug/L | 10.6J | 500 | 500 | 465 | 481 | 91 | 94 | 75-125 | 3 | 20 | |
| Zinc | ug/L | ND | 500 | 500 | 492 | 506 | 97 | 100 | 75-125 | 3 | 20 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

QC Batch: MSV/24030 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92169154001, 92169154002, 92169154003

METHOD BLANK: 1034789 Matrix: Water
Associated Lab Samples: 92169154001, 92169154002, 92169154003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,1,1-Trichloroethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,1,2,2-Tetrachloroethane | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| 1,1,2-Trichloroethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,1-Dichloroethane | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,1-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,2,3-Trichloropropane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,2-Dibromo-3-chloropropane | ug/L | ND | 13.0 | 08/24/13 01:52 | |
| 1,2-Dibromoethane (EDB) | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,2-Dichlorobenzene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,2-Dichloroethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,2-Dichloropropane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,3-Dichloropropane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 1,4-Dichlorobenzene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| 2-Butanone (MEK) | ug/L | ND | 100 | 08/24/13 01:52 | |
| 2-Hexanone | ug/L | ND | 50.0 | 08/24/13 01:52 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | ND | 100 | 08/24/13 01:52 | |
| Acetone | ug/L | ND | 100 | 08/24/13 01:52 | |
| Acrylonitrile | ug/L | ND | 200 | 08/24/13 01:52 | |
| Benzene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Bromochloromethane | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Bromodichloromethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Bromoform | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Bromomethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Carbon disulfide | ug/L | ND | 100 | 08/24/13 01:52 | |
| Carbon tetrachloride | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Chlorobenzene | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Chloroethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Chloroform | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| Chloromethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| cis-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| cis-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Dibromochloromethane | ug/L | ND | 3.0 | 08/24/13 01:52 | |
| Dibromomethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Ethylbenzene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Iodomethane | ug/L | ND | 10.0 | 08/24/13 01:52 | |
| Methylene Chloride | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Styrene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Tetrachloroethene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Toluene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| trans-1,2-Dichloroethene | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| trans-1,3-Dichloropropene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| trans-1,4-Dichloro-2-butene | ug/L | ND | 100 | 08/24/13 01:52 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

METHOD BLANK: 1034789 Matrix: Water

Associated Lab Samples: 92169154001, 92169154002, 92169154003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Trichloroethene | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Trichlorofluoromethane | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Vinyl acetate | ug/L | ND | 50.0 | 08/24/13 01:52 | |
| Vinyl chloride | ug/L | ND | 1.0 | 08/24/13 01:52 | |
| Xylene (Total) | ug/L | ND | 5.0 | 08/24/13 01:52 | |
| 1,2-Dichloroethane-d4 (S) | % | 100 | 70-130 | 08/24/13 01:52 | |
| 4-Bromofluorobenzene (S) | % | 100 | 70-130 | 08/24/13 01:52 | |
| Dibromofluoromethane (S) | % | 99 | 70-130 | 08/24/13 01:52 | |
| Toluene-d8 (S) | % | 94 | 70-130 | 08/24/13 01:52 | |

LABORATORY CONTROL SAMPLE: 1034790

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/L | 50 | 55.8 | 112 | 70-130 | |
| 1,1,1-Trichloroethane | ug/L | 50 | 52.3 | 105 | 70-130 | |
| 1,1,2,2-Tetrachloroethane | ug/L | 50 | 54.7 | 109 | 70-130 | |
| 1,1,2-Trichloroethane | ug/L | 50 | 52.0 | 104 | 70-130 | |
| 1,1-Dichloroethane | ug/L | 50 | 51.2 | 102 | 70-130 | |
| 1,1-Dichloroethene | ug/L | 50 | 52.3 | 105 | 70-132 | |
| 1,2,3-Trichloropropane | ug/L | 50 | 52.5 | 105 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/L | 50 | 57.2 | 114 | 70-130 | |
| 1,2-Dibromoethane (EDB) | ug/L | 50 | 56.0 | 112 | 70-130 | |
| 1,2-Dichlorobenzene | ug/L | 50 | 60.6 | 121 | 70-130 | |
| 1,2-Dichloroethane | ug/L | 50 | 50.6 | 101 | 70-130 | |
| 1,2-Dichloropropane | ug/L | 50 | 46.9 | 94 | 70-130 | |
| 1,3-Dichloropropane | ug/L | 50 | 51.6 | 103 | 70-130 | |
| 1,4-Dichlorobenzene | ug/L | 50 | 59.2 | 118 | 70-130 | |
| 2-Butanone (MEK) | ug/L | 100 | 102 | 102 | 70-145 | |
| 2-Hexanone | ug/L | 100 | 113 | 113 | 70-144 | |
| 4-Methyl-2-pentanone (MIBK) | ug/L | 100 | 104 | 104 | 70-140 | |
| Acetone | ug/L | 100 | 94.6J | 95 | 50-175 | |
| Acrylonitrile | ug/L | 250 | 251 | 100 | 70-143 | |
| Benzene | ug/L | 50 | 51.4 | 103 | 70-130 | |
| Bromochloromethane | ug/L | 50 | 51.3 | 103 | 70-130 | |
| Bromodichloromethane | ug/L | 50 | 50.2 | 100 | 70-130 | |
| Bromoform | ug/L | 50 | 57.6 | 115 | 70-130 | |
| Bromomethane | ug/L | 50 | 54.4 | 109 | 54-130 | |
| Carbon disulfide | ug/L | 50 | 51.6J | 103 | 70-131 | |
| Carbon tetrachloride | ug/L | 50 | 48.4 | 97 | 70-132 | |
| Chlorobenzene | ug/L | 50 | 54.6 | 109 | 70-130 | |
| Chloroethane | ug/L | 50 | 42.5 | 85 | 64-134 | |
| Chloroform | ug/L | 50 | 52.4 | 105 | 70-130 | |
| Chloromethane | ug/L | 50 | 58.7 | 117 | 64-130 | |
| cis-1,2-Dichloroethene | ug/L | 50 | 50.2 | 100 | 70-131 | |
| cis-1,3-Dichloropropene | ug/L | 50 | 45.9 | 92 | 70-130 | |



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# QUALITY CONTROL DATA

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

LABORATORY CONTROL SAMPLE: 1034790

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Dibromochloromethane | ug/L | 50 | 55.8 | 112 | 70-130 | |
| Dibromomethane | ug/L | 50 | 49.5 | 99 | 70-131 | |
| Ethylbenzene | ug/L | 50 | 53.8 | 108 | 70-130 | |
| Iodomethane | ug/L | 100 | 126 | 126 | 49-180 | |
| Methylene Chloride | ug/L | 50 | 47.1 | 94 | 63-130 | |
| Styrene | ug/L | 50 | 55.5 | 111 | 70-130 | |
| Tetrachloroethene | ug/L | 50 | 55.4 | 111 | 70-130 | |
| Toluene | ug/L | 50 | 50.9 | 102 | 70-130 | |
| trans-1,2-Dichloroethene | ug/L | 50 | 50.3 | 101 | 70-130 | |
| trans-1,3-Dichloropropene | ug/L | 50 | 47.5 | 95 | 70-132 | |
| trans-1,4-Dichloro-2-butene | ug/L | 50 | 60.5J | 121 | 70-141 | |
| Trichloroethene | ug/L | 50 | 50.8 | 102 | 70-130 | |
| Trichlorofluoromethane | ug/L | 50 | 50.5 | 101 | 62-133 | |
| Vinyl acetate | ug/L | 100 | 95.5 | 95 | 66-157 | |
| Vinyl chloride | ug/L | 50 | 39.3 | 79 | 69-130 | |
| Xylene (Total) | ug/L | 150 | 167 | 111 | 70-130 | |
| 1,2-Dichloroethane-d4 (S) | % | | | 95 | 70-130 | |
| 4-Bromofluorobenzene (S) | % | | | 95 | 70-130 | |
| Dibromofluoromethane (S) | % | | | 99 | 70-130 | |
| Toluene-d8 (S) | % | | | 98 | 70-130 | |



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**Pace Analytical Services, Inc.**
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Asheville, NC 28804
(828)254-7176

**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

# QUALIFIERS

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## LABORATORIES

| | |
|---|---|
| PASI-A | Pace Analytical Services - Asheville |
| PASI-C | Pace Analytical Services - Charlotte |

## ANALYTE QUALIFIERS

| | |
|---|---|
| C9 | Common Laboratory Contaminant. |



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Wayne MSWLF-SWs
Pace Project No.: 92169154

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **92169154001** | **SW-2** | SM 3030C | MPRP/14007 | EPA 6010 | ICP/12748 |
| **92169154002** | **SW-3** | SM 3030C | MPRP/14007 | EPA 6010 | ICP/12748 |
| **92169154003** | **SW-1** | SM 3030C | MPRP/14007 | EPA 6010 | ICP/12748 |
| **92169154001** | **SW-2** | EPA 8260 | MSV/24030 | | |
| **92169154002** | **SW-3** | EPA 8260 | MSV/24030 | | |
| **92169154003** | **SW-1** | EPA 8260 | MSV/24030 | | |



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| Pace Analytical | Sample Condition Upon Receipt (SCUR) | Page 1 of 2 |
|---|---|---|
| | Document Number: F-CHR-CS-03-rev.11 | Issuing Authority: Pace Huntersville Quality Office |

Client Name: Mun.

**Where Received:** ☑ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

**Courier:** ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other_____

**Custody Seal on Cooler/Box Present:** ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

**Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

**Thermometer Used: IR Gun T1102 T1301** **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

**Temp Correction Factor** **T1102**: No Correction **T1301**: No Correction

**Corrected Cooler Temp.:** 2.8 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

**Date and Initials of person examining contents:** 8/14

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:_____ | ☐Yes ☑No ☐N/A | 12. NO time /date on bottles |
| All containers needing preservation have been checked. | ☑Yes ☐No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☑Yes ☐No ☐N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☑Yes ☐No | |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☑No ☐N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased):_____ | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

**SCURF Review:** [illegible] **Date:** 8/16/13

**SRF Review:** [illegible] **Date:** 8/17/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO#: 92169154

92169154

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

**Section A**
**Required Client Information:**

| | |
|---|---|
| Company: | Municipal Engineering Services |
| Address: | P.O. Box 97 |
| | Garner, NC 27529 |
| Email To: | jpfohl@mesco.com |
| Phone: | 919-772-5393 Fax |
| Requested Due Date/TAT: | 10 Day (Default) |

**Section B**
**Required Project Information:**

| | |
|---|---|
| Report To: | Jonathan Pfohl |
| Copy To: | |
| Purchase Order No. | |
| Client Project ID: | Wayne MSWLF-SWs |
| Container Order Number: | |

**Section C**
**Invoice Information:**

| | |
|---|---|
| Attention: | Municipal Engineering Services |
| Company Name: | |
| Address: | |
| Pace Quote Reference: | |
| Pace Project Manager: | Kevin Godwin |
| Pace Profile #: | |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| North Carolina |

**SAMPLE ID**
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

Requested Analysis Filtered (Y/N)

| ITEM# | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | N | N | N | Y | N | N | N | N | N | N | N | 92169154 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | Analyses Test | | | VOCs- App 1 | Metals-App 1 (3030C Prep) | | | | | | | | |
| 1 | SW-2 | WT | G | | | 8/15/13 | 3:35 | | 4 | | | 1 | 3 | | | | | | | | x | x | | | | | | | 001 |
| 2 | SW-3 | WT | G | 1415 | | ↓ | 4:15 | | 4 | | | 1 | 3 | | | | | | | | x | x | | | | | | | 002 |
| 3 | SW-1 | WT | G | | | ↓ | 3:55 | | 4 | | | 1 | 3 | | | | | | | | X | X | | | | | | | 003 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SW-2 Lined Mid stream near access road | MESCO | 8/15/13 | 7PM | | 8/16 | 0900 | | | | |
| SW-3 Shared downsrtream of SW-2 & upstream of SW-1 | | 8/16/13 | 1415 | Jmulle Pace | 8-16 | 1415 | 28 | Y | N | Y |
| SW-1 Shared downstream of SW-3 shed | | | | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | | |
|---|---|---|---|
| PRINT Name of SAMPLER: | Jonathan Pfohl | | |
| SIGNATURE of SAMPLER: | | DATE Signed: | 8/15/13 |

| TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|

# Appendix B
# Field Sampling Parameter Data Sheet(s)

# Sampling Data Sheet

Municipal Services Engineering Company — Garner, NC — Boone, NC

Project: Wayne Co Closed MSWLF & Active C&D LF, Dudley

Samplers: J. Pfohl Page 1 of 1

Top of casing 0.05' Above clasp

| Monitoring Point | Sample Date | Sample Time | Sampling Parameters: Depth to Water (BTOP) Static | Lab Parameters to be analyzed for | Volume Purged (Gal) | Sample Type | Goes Dry During Purge | Notes | Total Depth | Water Quality Parameters: CO2 (mg/l) | DO (mg/L) | ORP | pH | Temp. © | Specific Cond. (us/cm | TDS (mg/L) | Turbidity | CH4 Gas Vapors (ppm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1R | 8/14/13 | 9:55 | 21.21 | MNA | 4 | P&DB | Y | Premier Event | 27.32 | 40 | 5.2 | 420 | 6.08 | 17.1 | 0 | 0 | 209 MT | NR |
| MW-2 | 8/14/13 | 11:25 | 5.81 | MNA | 9 | DB | N | | 15 | >100 | NI | -32 | 6.83 | 20.8 | 1,340 | 670 | 201 C | NR |
| MW-3 | 8/13/13 | 2:00 | 0.35 Artesian | DM | 11 | DB | N | Purge water is Red | 18 | NR | NR | 253 | 5.27 | 18.1 | 0 | 0 | C | NR |
| MW-4 | 8/13/13 | 10:10 | 7.57 | DM | 5 | DB | N | Lock is small 0.07 | 15 | NR | NR | 241 | 5.91 | 19.1 | 0 | 0 | C | NR |
| MW-5 | 8/13/13 | 11:25 | 2.29 Artesian | DM | 8 | DB | N | | 18 | NR | NR | 224 | 5.47 | 19.3 | 50 | 20 | [illegible] | NR |
| MW-6 | 8/13/13 | 10:45 | 6.41 | DM | 8 | DB | N | | 18.14 | NR | NR | 133 | 5.26 | 21.4 | 90 | 40 | C | NR |
| MW-7 | 8/13/13 | 2:40 | 7.91 | DM | 7 | P&DB | N | | 19 | NR | NR | 388 | 4.88 | 20.8 | 80 | 30 | C | NR |
| MW-8 | 8/14/13 | 10:35 | 20.26 | MNA | 16 | P&DB | N | | 29 | >100 | 2.4 | 362 | 5.04 | 17.1 | 10 | 0 | 59 C | NR |
| MW-9 | 8/13/13 | 3:10 | 20.59 | DM | 4 | DB | X | | 25 | NR | NR | 355 | 5.10 | 18.5 | 50 | 20 | MT | NR |
| MW-10 | 8/13/13 | 4:50 | 18.36 | DM | 5 | P&DB | Y | | 25 | NR | NR | 351 | 5.12 | 18.7 | 60 | 20 | MT | NR |
| MW-11 | 8/13/13 | 12:00 | 12.85 | DM | 4 | DB | N | | 15 | NR | NR | 134 | 5.93 | 19.2 | 1,130 | 560 | VT | NR |
| | | | | | | | | | | | | | | | | | | |
| SW-2 | NS | | DRY | | | | | By MW-7 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| SW-By MW-2 | 8/14/13 | 11:40 | | | | | | | | NR | 6.1 | 221 | 6.89 | 23.1 | 70 | 30 | C | NR |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

Comments

SS B=Stainless Steel Baler, D B=Disposable Baler, P=Low flow Pump, PD=Purged Dry

VT=Very Turbid, MT=Moderately Turbid, ST=Slightly Turbid, C=Clear

NR=No Reading Attempted, NS=No Sample Obtained

pH meter calibrated 4.01 & 7.01 At start of Day & Lunch

MP-4 Nearest MW-7 1" TD = 6' BGS - color Fitting 25' NW from MW-7

# Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Boone, NC

Project: Wayne Co MSWLF, Dudley- Shared Surface Waters

Samplers: J. Pfohl Page 1 of 1

| Monitoring Point | Sample Date | Sample Time | Sampling Parameters: Lab Parameters to be analyzed for | Sample Type | Visual Gage Height | Visual Flow Rate | Notes | Water Quality Parameters: DO (mg/L) | ORP | pH | Temp. © | Specific Cond. (us/cm | TDS (mg/L) | Turbidity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW-1 | 8/15/13 | 3:35 | DM | | Mod | Mod | Downstream of SW-2(Closed) & SW-3 (Shared) | NR | 227 | 7.12 | 19.4 | 400 | 190 | < |
| SW-2 | 8/15/13 | 4:15 | DM | | Mod | Mod | Lined near access rd (Mid stream) | NR | 106 | 6.28 | 22.4 | 90 | 40 | < |
| SW-3 | NS | DRY | DM | | — | — | Upstream-furthest East historically Closed | | | | | | | |
| | | | | | | | | | | | | | | |
| SW-3 | 8/15/13 | 3:55 | DM | | Mod | Mod | Shared Downstream of SW-2 & upstream of SW-1 | 6.2 | 203 | 6.98 | 22.8 | 50 | 30 | c |

Comments

SS B=Stainless Steel Baler, D B=Disposable Baler, P=Low flow Pump, PD=Purged Dry

VT=Very Turbid, MT=Moderately Turbid, ST=Slightly Turbid, C=Clear

NR=No Reading Attempted, NS=No Sample Obtained