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GROUNDWATER ASSESSMENT AND REMEDIAL IMPLEMENTATION UPDATE REPORT FOR SOLID WASTE MANAGEMENT UNIT 39 (SWMU 39) MILLINGTON SUPPACT TN

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LEE & RYAN

GROUNDWATER ASSESSMENT AND REMEDIAL IMPLEMENTATION UPDATE REPORT

SOLID WASTE MANAGEMENT UNIT 39

NAVAL SUPPORT ACTIVITY MID-SOUTH MILLINGTON, TENNESSEE

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ACRONYMS

bgs	below ground surface
cDCE	cis-1,2-dichloroethene
cm/s	centimeters per second
CME	Central Mine Equipment
CSM	conceptual site model
CTO	Contract Task Order
cVOC	chlorinated volatile organic compound
DO	dissolved oxygen
HSA	hollow stem augers
IMPR	Interim Monitoring Progress Report
IRP	Installation Restoration Program
ISCO	in-situ chemical oxidation
$KMnO_4$	Potassium Permanganate
Lee & Ryan	Lee & Ryan Environmental Consulting, Inc.
MCL	Maximum Contaminant Level
µg/L	micrograms per liter
MNA	monitored natural attenuation
NAVFAC	Naval Facilities Engineering Command
NSA	Naval Support Activity
ORP	oxidation-reduction potential
PCB	Polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SWMU	Solid Waste Management Unit
TCE	trichloroethene
tDCE	trans-1,2-dichloroethene
TST	Tri-State Testing Services/McCray Drilling, LLC
UFP-QAPP	Uniform Federal Policy - Quality Assurance Project Plans

USEPA	United States Environmental Protection Agency
UST	underground storage tank
VC	vinyl chloride
VOC	volatile organic compound

EXECUTIVE SUMMARY

Lee & Ryan Environmental Consulting, Inc. (Lee & Ryan) was tasked with the remediation of the trichloroethylene (TCE) plume in groundwater in the alluvial-fluvial deposits aquifer at Solid Waste Management Unit (SWMU) 39 (Site) located at Naval Support Activity (NSA) Mid-South in Millington, Tennessee. The objective of the task order was to remediate the known concentrations of TCE and associated degradation products at the Site to less than U.S. Environmental Protection Agency (USEPA) maximum contaminant levels (MCLs) within three years of contract award.

Based on data collected during the last quarterly monitoring event (February 2011) conducted before Lee & Ryan was awarded the task order contract, and site information provided by Naval Facilities Engineering Command (NAVFAC), the contaminant plume was characterized with a maximum TCE concentration of approximately 400 micrograms per liter (µg/L) that was located in the 65 to 75 feet below grade depth interval of the aquifer.

Lee & Ryan initiated quarterly groundwater sampling in March 2012. Additionally, eight discrete interval groundwater-sampling wells were installed in April 2012. Lee & Ryan collected groundwater samples from each of the discrete intervals between 48 and 90 feet below grade following well installation. Groundwater samples collected during the March 2012 quarterly sampling event and April 2012 discrete sampling event were analyzed for volatile organic compounds (VOCs). Analytical results and sampling depths were used to update the conceptual site model (CSM).

Based on the analytical findings from the March and April 2012 sampling events, a higher concentration (950 µg/L) than originally reported was identified in part of the plume in the upper portion of the aquifer. To address this previously unidentified high concentration area within the aquifer, Lee & Ryan modified the initial proposed potassium permanganate ($KMnO_4$) injection plan from a one percent by weight solution to a 2.1 percent by weight solution (21.3 grams of $KMnO_4$ per liter of solution). Additionally, the injections were concentrated in the upper portion of the aquifer and lower portion of the overlying confining clay. Between July 11 and 20, 2012, Lee & Ryan injected between 1,400 to 2,000 gallons of $KMnO_4$ into the aquifer at each of the 13 injection locations, for a total of approximately 24,850 gallons of injectant.

Quarterly monitoring events continued in September and December 2012. Lee & Ryan noted decreases and increases in various VOC concentrations in some of the monitoring wells based on the September 2012 sampling results, which is assumed to be a response to the July $KMnO_4$ injections.

The results of the December 2012 sampling event show unexpected increases in VOCs in six of the seven regularly sampled monitoring wells. These increases most likely are the result of the mobilization of TCE-contaminated groundwater in the

upper part of the aquifer during the injection of 24,850 gallons of $KMnO_4$ in July 2012, and the possible downward movement of VOCs from the lower part of the confining unit into the upper portion of the aquifer associated with and as a response to seasonally declining water levels in the aquifer.

December 2012 quarterly groundwater analytical results show four monitoring wells (39G02LF, 39G03LF, 39G04LF and 39G22LF) with one or more contaminants that exceed their respective MCLs. These exceedances appear to be connected with the mobilization and redistribution of contaminants in the upper portion of the aquifer following the $KMnO_4$ injection phase. Expectations were that all cVOC contaminant concentrations would decline after the $KMnO_4$ reacted with them. The following two quarters after $KMnO_4$ injections (September and December 2012) showed the reaction of the contaminants to the $KMnO_4$ as erratic with increasing and decreasing concentrations of TCE and cDCE.

Lee & Ryan recommended continued monitoring and review of subsequent rounds of quarterly sampling results to determine if the rebound of contaminants seen in the quarterly samples after injection activities would persist or were temporary, and if a second injection was necessary to meet cleanup objectives. See the *Draft Annual 2013 Interim Measures Progress Report* (Lee & Ryan 2014) for subsequent and current data on SWMU 39.

1.0 INTRODUCTION

As part of the U.S. Navy Installation Restoration Program (IRP), Lee & Ryan Environmental Consulting, Inc. (Lee & Ryan) has prepared this Groundwater Assessment and Remedial Implementation Update Report for Solid Waste Management Unit (SWMU) 39 (Site) located on the Southside of Naval Support Activity (NSA) Mid-South (formerly Naval Air Station Memphis), Millington, Tennessee (**Figure 1**).

This report summarizes the groundwater investigation at the Site that includes the installation and sampling of multi-level discrete-screened monitoring wells and a geophysical survey completed under Naval Facilities Engineering Command (NAVFAC) Midwest Contract Number N40083-11-D-0028 Contract Task Order (CTO) 0001. The scope of work includes a 42 month deadline (June 27, 2014) to remediate the trichloroethylene (TCE) and daughter product contamination present in the alluvial-fluvial deposits aquifer at SWMU 39, and completion of four consecutive quarters of groundwater sampling with analytical results less than U.S. Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) by March 2015. This allows for a six month period of time to submit a No Further Action request to TDEC prior to the expiration of CTO 0001 (a 1,460-day contract) on September 26, 2015.

1.1 General site conditions

SWMU 39 is approximately 3.90 acres in size and is bordered by Kearsarge Avenue to the west, Intrepid to the north, Kittyhawk Avenue to the east, and a dog training facility to the south. SWMU 39 includes a one-story building, Building S-203, with adjoining asphalt parking area and maintained grass. As part of a separate task under CTO 0001, Lee & Ryan removed an approximately 16,426-square-foot concrete slab associated with the former Building S-74 from the southern portion of SWMU 39 in April 2012 (Lee & Ryan, 2012).

The property in the general vicinity of SWMU 39 is industrial or vacant. A park is located on the east side of Kittyhawk Avenue. A K-9 training facility is located on the south side of SWMU 39. Vacant land is located adjacent west, across Kearsarge Avenue, and adjacent north, across Intrepid Street.

The subject property and surrounding area is characterized as relatively level with low relief. The surface water discharges to the Big Creek Drainage Canal, which is located approximately 1,500 feet south of the Site.

1.2 Background

Building S-74 was built in 1943 and operated as a laundry until 1981 (38 years). The building structure was demolished in 1995; however, the concrete slab was left in place following building demolition (EnSafe, 2003). Based on the historical use of Building S-74 as a dry cleaning facility, a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) was conducted in 1996 at the Site (EnSafe and

Allen & Hoshall, 1996). TCE and its degradation daughter products were identified in groundwater in the alluvial-fluvial deposits aquifer at concentrations exceeding RCRA action levels. Additional hydrogeologic investigations were performed at SWMU 39 in 1998 and 1999, and chlorinated solvents were identified in soil and groundwater (EnSafe, 2000).

Polychlorinated biphenyl (PCB) containing transformers and drums of oil were formerly stored on a concrete pad on the southwest side of the former Building S-74 (EnSafe, 2001). In May 1996, an underground storage tank (UST) located approximately 100feet south of the concrete pad was removed by a Navy subcontractor (EnSafe and Allen & Hoshall, 1996). The former Building S-212, which was located in the southwest portion of SWMU 39 was used to store dry-cleaning solvents that were used at Building S-74 (EnSafe, 2001). The former Building S-212 area is now covered with grass.

1.3 Summary of Recent Site Activities

In February 2005, interim Corrective Measures were implemented at SWMU 39 to address the TCE and degradation-product contamination in the aquifer at the site. Enhanced bioremediation consisting of in-situ reductive chlorination was used to reduce the extent and concentration of chlorinated solvents in the groundwater (EnSafe, 2011).

The enhanced bioremediation corrective measures consisted of monthly injections of sodium acetate and diammonium phosphate into six substrate-injection wells. These injections were intended to create a reductive environment in the aquifer to enhance the ability of naturally occurring microbes to biodegrade/dechlorinate the dissolved chlorinated solvents. As of February 2011, a total of 3,250 pounds of sodium acetate and 32.5 pounds of diammonium phosphate had been injected into each of the six SWMU 39 injection wells. Injections began in February 2005 and were suspended in February 2011 as a result of contract transitioning within the Navy.

From 2005 into 2011, seven monitoring wells were sampled quarterly to evaluate the effectiveness of the injections (EnSafe, 2011). **Figure 2** depicts the locations of the sampled monitoring wells. In 2011, after approximately six years of treatment, the reported concentrations from the monitoring wells sampled quarterly had decreased, but still exceeded RCRA action levels.

Lee & Ryan was retained by the Navy to implement a different approach for remediating the groundwater contamination. Lee & Ryan's remediation contract, awarded on September 27, 2011, has a 42 month deadline (June 27, 2014) to remediate the TCE and daughter product contamination present in the groundwater at SWMU 39, and have four consecutive quarters with analytical results less than their respective U.S. Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) by March 2015. This is to allow for a six

month period of time to submit a No Further Action request to TDEC prior to the expiration of CTO 0001 (a 1,460 day contract) on September 26, 2015.

After reviewing the various remedial options and based upon the nature and extent of the previously defined contamination plume, Lee & Ryan selected in-situ chemical oxidation as the most viable option to meet the required time-frame and clean-up criteria. The former remediation technology used, reductive dechlorination via enhanced bioremdiation, is a slow process and in Lee & Ryan's opinion, it would not achieve remedial objectives within a three year timeframe. Lee & Ryan determined that chemical oxidation of the TCE and its daughter products through injection of potassium permanganate ($KMnO_4$) was the best technology available to remediate the impacts to the alluvial-fluvial deposits aquifer given the subsurface geology, hydrogeology, contaminant properties, previous characterization data, and timeframe allowed for cleanup.

1.4 Subsurface Geology

The subsurface of SWMU 39 comprises three distinct stratigraphic units within approximately the uppermost 100 feet below land surface. Proceeding from the deepest to shallowest, they are: the Tertiary aged Cockfield Formation (Unit 3); alluvium/fluvial deposits of Pliocene through Pleistocene age (Unit 2); and loess/alluvium deposits of Pleistocene through Holocene age (Unit 1).

Unit 3 comprises the upper part of the Cockfield Formation, which is part of the Jackson-upper Claiborne confining unit in the Memphis area (EnSafe, 2000). Unit 3 generally is composed of very fine silty sand interbedded with clay and silt lenses or clay interbedded with fine sand lenses. Unit 3 contacts the base of the alluvium/fluvial deposits at roughly 75 feet below ground surface (bgs) at SWMU 39, with the upper zone of Unit 3 in the vicinity of SWMU 39 consisting of a discontinuous sand zone overlying a clay zone. Where sand is present, it is very-fine to fine grained, ranging in thickness from 16.5 to 28 feet.

Unit 2 makes up the alluvial-fluvial deposits aquifer and groundwater in it is confined or semi-confined by the overlying Unit 1. Unit 2 comprises alluvium and fluvial deposits that range from 32 to 46 feet in thickness and that consist of sand, gravel, and minor amounts of clay. During previous Site investigations and Lee & Ryan's quarterly monitoring since March 21, 2012, the entire thickness of Unit 2 has been saturated, with artesian conditions that cause water levels to rise into Unit 1. Two distinct zones of sediment particle sizes are present in Unit 2:

1. An upper zone consisting of fine to coarse-grained, poorly sorted sand and gravel, ranging from11 to 35-feet thick; and
2. A lower zone consisting of primarily of sub-angular gravel, which coarsens downward from 0.25 to 2.5 inches in longest dimension, with occasional cobbles.

Unit 1 materials at SWMU 39 consist of loess and alluviated loess deposits composed of silt, silty-clay, clay, and minor amounts of sand. The loess ranges from 35 to 46-feet thick at SWMU 39, and contains low-yield zones that produce water containing constituents that commonly exceed Primary and Secondary drinking water standards (Ensafe, 2000). Based on the low hydraulic conductivities of this unit, ranging from 10^{-8} to 10^{-5} centimeters per second (cm/s) (Ensafe, 2000), this stratigraphic unit acts as an aquitard by reducing the downward infiltration of recharge and serves as an upper confining unit to groundwater in the underlying alluvial-fluvial deposits aquifer.

2.0 REMEDIATION TECHNOLOGY

Lee & Ryan's approach to achieving the objectives of this CTO began before contract award by creating a conceptual site model (CSM) using the available documents supplied by NAVFAC.

The CSM was created to help determine an appropriate, cost effective, and time effective remediation approach. As described previously, the geologic/hydrogeologic setting at SWMU 39 is characterized by loess and alluviated loess deposits (mostly silt and clay), overlaying saturated alluvial-fluvial deposits (mostly sand) that has a relatively high hydraulic conductivity (compared to the overlying loess/alluvium), and that is underlain by the Cockfield Formation (interbedded sands and clays), which has lower hydraulic conductivity relative to the alluvial-fluvial deposits aquifer. Because understanding of all geologic complexities at most remediation sites is cost prohibitive, and the success of applied remedial technologies is in large part dependent on understanding of the relative permeabilities of target subsurface zones, the CSM developed for SWMU 39 is considered adequate for further discussion and evaluation.

Based on descriptions of the geologic profile presented above, the majority of the groundwater impact by VOCs is located in the alluvial-fluvial deposits aquifers (Unit 2), which has a reported hydraulic gradient of .0036 feet/feet, horizontal groundwater velocity of 36.5 feet per year and an assumed effective porosity of 25 percent (EnSafe, 2001). Based on the lower hydraulic conductivity of the underlying Cockfield Formation (Unit 3) relative to Unit 2, dissolved-phase VOC contaminant migration is not expected to progress vertically downward into the lower unit.

Enhanced bioremediation processes at work in the subsurface of SWMU 39 for the past six years have been affecting the contaminant levels, distribution, and relative percentages of TCE with respect to its degradation compounds. Through the corrective measures implemented from February 2005 through February 2011, EnSafe successfully created a reducing subsurface environment conducive to stimulate the naturally occurring anaerobic microbes to reductively dechlorinate the VOC contaminants. The process has been documented through groundwater

sampling results that indicate a decrease in the concentrations of TCE and increases in the concentrations of degradation compounds.

2.1 Available Remediation Technologies

The preliminary assessment of remediation technologies feasible for the mitigation of groundwater impacted by TCE and its degradation compounds at SWMU 39 involved consideration of the compound's physicochemical properties (e.g., distribution coefficients, reactivity, solubility, etc.). These properties are directly responsible for behavior, transport, and fate of the chemicals in the subsurface environment. Knowledge of a compound's physicochemical properties can be used to alter its behavior and fate in the environment.

Dissolved-phase TCE contamination frequently is addressed with pump-and-treat systems for remediation and containment, but other innovative technologies have demonstrated a greater capacity for a rapid removal of mass from both non-aqueous phase liquid source zones and dissolved-phase contamination. Approaches applied to the remediation of TCE and its degradation compounds include passive/enhanced bioremediation, electrokinetics, flushing technologies (e.g., cosolvent/alcohol flooding, surfactant flushing, in-situ oxidation), monitored natural attenuation (MNA), phytoremediation, thermal processes (e.g., steam injection, electrical resistive heating, in-situ vitrification), volatilization technologies (e.g., soil vapor extraction, air sparging, in-well stripping), and in-situ treatment walls (e.g., slurry wall or permeable reactive barrier).

The specific technologies considered by Lee & Ryan for treatment of VOC contaminated groundwater at SWMU 39 included:

- pump and treat (P&T);
- air-sparging (AS) and soil vapor extraction (SVE);
- a combination of P&T and AS;
- continuation of reductive dechlorination through enhanced bioremediation;
- MNA; and
- in-situ chemical oxidation (ISCO).

The objective of the CTO is to remediate TCE and its degradation products in the groundwater at SWMU 39 to less than their applicable MCLs with four consecutive quarters of analytical results less than their applicable MCLs within 42 months or less from the time of CTO award. Key factors that affected the selection of the remedial alternative included: the concentrations of contaminants; location of contaminants in a permeable, water-bearing unit at a depth ranging from 50 to 100 feet below grade; the desired remediation goals and timeframe; and the lack of additional information regarding the impacted zone (i.e., results of pilot testing of other remedial technologies).

Below is a discussion of the remedial solutions considered and the factors that

affected their potential selection.

2.1.1 Pump and Treat

P&T was excluded from consideration primarily because of the time and cost necessary to implement and maintain a P&T system. The timeline for implementation would include a pilot study, retention of a discharge permit from the local sanitary sewer system owner and/or an NPDES permit (if discharging to a local waterway), treatment building/trailer set-up and management, etc. The timeline and cost necessary to implement this type of system was considered prohibitive compared to the other remedial technologies considered.

2.1.2 Air-sparging and Soil Vapor Extraction

AS/SVE can be a cost and time efficient remedial option for clean-up of TCE contamination in groundwater. This option involves the in-situ injection of air into groundwater to strip TCE and its degradation compounds from the water. The resulting vapor-phase contaminants subsequently are removed using extraction wells with screened intervals installed at higher elevations than the air-injection points. However, this technology requires a significant section of the unsaturated subsurface to be porous enough for the TCE vapors to migrate into to be extracted. As described in the CSM, the fully saturated aquifer (Unit 2), which is comprised primarily of sand, is overlain by a lower permeability aquitard (Unit 1) comprised primarily of silt and clay. This geologic framework is not optimal for the control and collection of volatilized TCE or its degradation products. Therefore, on the basis of the geological conditions present at SWMU 39, AS/SVE was excluded from further consideration.

2.1.3 Pump and Treat with Air-sparging

The combination of P&T/AS systems would not be viable options separately or in combination. In theory, P&T would first be used to dewater the upper portion of the alluvial-fluvial deposits aquifer in order to create an unsaturated zone where the volatilized TCE would collect and could be removed after sparging. However, the magnitude of pumping required to sufficiently dewater the aquifer above the plume(s) would be prohibitive. Additionally, the cost of system installation and maintenance, other unknowns regarding pumping, timing issues regarding ex-situ treatment of contaminants, and issues regarding clean-up timeframes in general exclude this combination of technologies from further consideration.

2.1.4 Reductive Dechlorination

Reductive dechlorination is occurring on-site and has been limitedly successful. Through dechlorination, TCE degrades under anaerobic geochemical conditions into cis-1,2-dichloroethylene (cDCE) and trans-1,2-dichloroethylene (tDCE), which both then degrade into vinyl chloride (VC), although these latter reactions occur primarily under aerobic geochemical conditions. Although VC concentrations have been reported below the MCL of 2 micrograms per liter (µg/L) in the quarterly

monitoring events, cDCE concentrations continue to increase. This increase in cDCE would be expected to increase the concentration of VC in the future, but only if the appropriate redox conditions are maintained in the treatment zones. The concentration of cDCE in the plumes at the north and sound ends of Building S-203 have exceeded the MCL of 70 ug/L for this contaminant in each consecutive quarterly sampling event from November 2006 through June 2012. VC concentrations for the same sampling events did not exceed the MCL. Despite these results, it is unclear if the continuation of the current remedial action of reductive dechlorination through enhanced bioremediation would be effective in reversing the trend of both increasing cDCE concentrations and anticipated increases in VC concentrations within the 36 month time frame for groundwater clean-up at the Site. In the opinion of Lee & Ryan, the uncertainty associated with meeting the MCLs necessary for closure of the Site in the time frame allotted does not warrant the continuation of this remedial action. Therefore, this technology was excluded from further consideration.

2.1.5 Monitored Natural Attenuation

MNA has been removed from further consideration based on the desired remedial timeframe. Data from this and other projects, where removal of TCE by reductive dechlorination was implemented, suggest that the applicable MCLs may not be achievable by the actions of microbes alone within the allotted timeframe. Furthermore, the destruction of the main degradation compound, cDCE, generally requires more time than the more chlorinated TCE in reductive environments (Stroo and Ward). The time to accomplish this is projected to be outside of the 42 month performance period. Therefore, this technology was excluded from further consideration.

2.1.6 In-situ Chemical Oxidation

In-situ chemical oxidation (ISCO) has been proven to be an effective technology in remediating chlorinated VOCs (cVOCs) in groundwater at the levels present at SWMU 39 (Stroo and Ward, and Siegrist, Crimi and Simpkin). The technology has been proven to work best in porous, highly permeable, non-carbonate media. The use of ISCO would be a viable and proven technology to breakdown the remaining TCE, cDCE and VC to concentrations at or less than the respective MCLs. The use of ISCO provides Lee & Ryan more control over the degradation and monitoring process through optional additional injections to meet the CTO deadline to Site clean-up/closure. This technology is preferred over the five options discussed above.

2.2 Selected Remedial Technology

For the reasons described in each option above, Lee & Ryan believes ISCO is the best available remedial technology for SWMU 39 to achieve the performance objectives within the required timeframe.

2.2.1 Chosen Chemical Oxidant

A variety of different chemicals can be used as an oxidizer to destroy TCE in groundwater. Lee & Ryan reviewed the properties, byproducts, and implementation requirements of hydrogen peroxide, Fenton's reagent, persulfate, Oxygen Release Compound® by Regenesis, ozone, sodium permanganate, and potassium permanganate ($KMnO_4$).

$KMnO_4$ was the chosen oxidant for this site based on expected concentrations of TCE and its daughter products, the properties of the alluvial-fluvial deposits aquifer (Unit 2), and the demonstrated effectiveness of $KMnO_4$ at sites with similar hydrogeologic settings.

2.2.2 Potassium Permanganate

Because of the remedial timeframe required in the CTO, Lee & Ryan proposed to conduct one injection of $KMnO_4$ at a one percent concentration followed by a second injection within the 36-month remedial goal time window if contaminant rebound was observed. Lee & Ryan has successfully performed the ISCO process previously at other sites, and was confident in the probability that one initial injection would remediate the levels of cVOCs identified at SWMU 39. If rebound occurred, an additional injection of $KMnO_4$ was planned at a one percent concentration to increase the probability of achieving the remediation goals in 36 months or less. By the use of ISCO, the project was expected to be completed within 42 months or less from the CTO award date. The project is designed to include continued quarterly sampling of MWs in order to monitor the effects of the in-situ injections.

Photograph 1: Granular $KMnO_4$.

Rebound of contaminant concentrations in groundwater often occurs following implementation of active in-situ remedial actions. Basically, removal of contaminants from groundwater from a saturated subsurface environment creates a concentration gradient, whereby contaminants that are sorbed to subsurface media (e.g., sand, silt, clay) will desorb and dissolve into groundwater, increasing the dissolved phase concentration. Contaminant desorption generally can take months to occur and may not be reflected in groundwater samples until after one or more quarterly sampling events. This process is more prevalent in subsurface environments containing clay and other fine-grained sediments with relatively low hydraulic conductivities, high porosity, and high potential for matrix diffusion by some classes of contaminants. Given the fact that the loess/alluvium deposits of Unit 1 are composed primarily of silt and clay, the alluvial-fluvial deposits (Unit 2)

contain some interspersed silt and clay, and cVOCs have been identified in both zones, there is a likelihood for some rebound to occur during remedial efforts on Site.

3.0 PRE-REMEDIAL ACTION INVESTIGATION

The following sections discuss what data were collected to refine the original CSM before final decisions were made on $KMnO_4$ concentration, volume, and injection locations (laterally and vertically). Lee & Ryan refined the initial site condition assumptions with the additional collected data and modified the original CSM described earlier in this report to reflect the new information. Corresponding modifications were made to the project approach targeting the CTO performance objectives and timing expectations.

As discussed briefly in Sections 1 and 2 in terms of the initial sampling events conducted by Lee & Ryan as part of the CTO, Lee & Ryan installed eight discrete interval groundwater sampling wells to help in further delineating the concentration, and vertical and horizontal distribution of the contaminants in the areas northwest and southwest of Building S-203. The work was performed in April 2012 and is discussed below.

3.1 Discrete Interval Sampling Well Installation

Between April 11 and April 20, 2012, eight discrete interval sampling wells (39G23LF, 39G24LF, 39G25LF, 39G26LF, 39G27LF, 39G28LF, 39G29LF, and 39G30LF) were installed at separate locations at SWMU 39. Five wells (39G23LF through 39G27LF) were installed southwest of Building S-203 and the remaining three (39G28LF through 39G30LF) were installed northwest of Building S-203. **Figure 2** depicts the location of the eight discrete interval sampling wells.

Tri-State Testing Services/McCray Drilling, LLC (TST) installed the eight discrete interval sampling wells using a Central Mine Equipment (CME) 550 drill rig mounted on an all-terrain vehicle. TST used six-inch diameter hollow stem augers (HSA) to install the wells. Once the target depth was reached, TST removed the HSA bottom plug and lowered the discrete interval sampling well components into the HSAs. Each discrete interval sampling well was installed at a target depth of 100, except for 39G25LF, which was installed to 102 feet bgs because of the elevated ground surface. Soil cuttings generated from drilling were stockpiled on the former Building S-74 concrete pad and disposed of with the waste generated from Building S-74 demolition and excavation activities.

The completion depth for the wells was selected based on the subsurface Unit 2 and Unit 3 interface depth. Each well was constructed of two-inch schedule-40 PVC with 0.10-millimeter slot screens. Two-foot screens were installed at ten foot intervals, with eight feet of casing between each screened interval. A schematic of the typical well construction is shown on **Figure 3**. Screened intervals of seven of

the discrete interval sampling wells were 48-50, 58-60, 68-70, 78-80, 88-90 and 98-100 feet bgs, except for 39G25LF, which was screened at 50-52, 60-62, 70-72, 80-82, 90-92 and 100-102 feet bgs.

After the discrete interval sampling wells were installed to the appropriate depth, TST extracted the augers from the boring. The annulus space was filled with #5 quartz sand from the final depth to 46 feet bgs. Bentonite pellets were used to fill the annulus space from 46 to 2 feet bgs and concrete was placed from 2 feet bgs to the ground surface. The discrete interval sampling wells were protected by a traffic-bearing well vault with flush mount lid.

3.2 Discrete Groundwater Sampling

Each available discrete interval was sampled using low-flow sampling techniques between April 23 and April 27, 2012. The sampling pump was unable reach the bottom screened interval (98-100 or 100-102 feet bgs) in all wells and the 88-90 foot screened interval in sampling wells 39G26LF and 39G28LF. The inaccessibility is believed to be caused by silt infiltration based on the soft bottom impact of the water level meter and pump. Analytical results of the discrete interval sampling event are summarized in **Table 1**. Laboratory analytical data sheets for the discrete interval sampling event are included in **Appendix A**. Groundwater sampling forms containing field water-quality parameters collected during well purging (pH, Dissolved Oxygen, Conductivity, Oxygen Reduction Potential, turbidity and temperature) are provided in **Appendix B**.

3.3 Modified Conceptual Site Model

Based on the results of the discrete sampling, Lee & Ryan concluded the following:

- The highest cVOC concentrations were found near the southwest corner of Building S-203.
- cVOC concentrations in samples collected from the upper portion of the alluvial-fluvial deposits aquifer (Unit 2) in the south area were higher than reported for the quarterly sampling events conducted in the previously existing monitoring wells.
- The highest concentration of TCE reported from the discrete sampling event in the south area exceeded the March 2012 quarterly sampling event data from the same area by approximately 100 times (950 µg/L from the 48 to 50 feet bgs screened interval in discrete well 39G25LF vs. 9.6 µg/L in the 74 foot depth interval in MW 39G04LF).

The initial CSM and remediation plan assumed a maximum of 9.6 µg/L of TCE for planning and costing purposes, based on the contaminant data collected during the March 2012 quarterly sampling event. The cVOC concentrations identified from the April 2012 discrete sampling event have significantly modified the initial CSM. Thus, the original remediation plan developed by Lee & Ryan for this CTO and described in Sections 1 and 2 required modification based on the findings of the

discrete sampling.

The CSM cross-section locations are depicted on **Figure 4**. The CSM consists of three cross-sections (**Figures 5** through **7**) constructed through monitoring well locations with reported stratigraphic profiles for each well and interpolated in areas away from the wells. The analytical results from the first quarter groundwater sampling event (March) of 2012 and the discrete monitoring well sampling event in April 2012 were depicted on the CSM to interpret the plume distribution prior to remedial actions.

4.0 GEOPHYSICS

In an attempt to better characterize the extent of the groundwater contamination, a cross-borehole electrical resistivity tomography (ERT) survey was conducted using electrodes installed on the exterior of the discrete interval sampling wells. A series of 16 electrodes were attached to the outside of each well at pre-defined intervals (every meter, starting at the bottom of the well) as it was lowered into the HSAs. The electrode wires were secured to the well casing using plastic zip-ties. The data recorded during the survey proved to be unusable during the post-processing phase due to very high noise ratio and insufficient gradient resolution. Furthermore, the cVOCs existed at concentrations not easily differentiated from background resistivity with the geophysical survey engineered for this Site. The survey was deemed unsuccessful and the data was excluded from this report.

5.0 REMEDIATION ACTION IMPLEMENTATION

Initially, a one percent $KMnO_4$ mixture was planned to be injected into the contaminated intervals in the southern and northern plumes. The total calculated pore volume of the treatment areas northwest and southwest of Building S-203 was 23,400 gallons. The concentration of $KMnO_4$ required to treat the cVOCs was calculated based on the maximum concentration reported in the February 2011 quarterly monitoring sampling event (prior to CTO award), 9.6 µg/L of TCE. However, during discrete sampling activities the maximum concentration of TCE identified was 100 times the initially reported concentration (950 µg/L).

Photograph 2: Injection of $KMnO_4$.

The CMS was updated and the concentration of $KMnO_4$ was doubled to 2.1 percent by weight (21.3 grams of $KMnO_4$ per liter of solution) to compensate for the higher concentrations of chlorinated solvents. Although the concentration of the injectant increased, the volume of the chemical oxidant needed remained the same because the areal extent and corresponding volume of affected pore space did not change during the CSM refinement.

Between July 11 and 20, 2012, Lee & Ryan supervised TST during injection of $KMnO_4$ into the alluvial-fluvial deposits aquifer. A total of 13 injections were completed near Building S-203, ten near the southwest end and three near the northwest end (**Figure 2**). Approximately 24,850 gallons of a two percent $KMnO_4$ solution was injected into the subsurface of SWMU 39 in the areas of the plumes at a pressure of approximately 300 pounds per square inch using a Geoprobe 7720DT. **Table 2** lists the $KMnO_4$ injection distribution data.

6.0 QUARTERLY GROUNDWATER SAMPLING DATA

The quarterly sampling events are documented and summarized in the 2012 Interim Monitoring Progress Report (IMPR) prepared under a separate cover (Lee & Ryan, 2013).

6.1 Groundwater Flow Trends

Water level elevations have been monitored quarterly at the same seven wells since January 2005 (39G02LF, 39G03LF, 39G04LF, 39G10LF, 39G11LF, 39G12LF, and 39G22LF) to assess the groundwater flow direction in the alluvial-fluvial deposits aquifer (Unit 2). Based on the reported potentiometric surface maps, the groundwater gradient is relatively flat with a generally constant flow direction to the southwest across the Site. The alluvial-fluvial deposits aquifer is fully saturated and confined by the overlying alluvium-loess deposits at the Site.

6.2 Quarterly Groundwater Sampling Summary

From 2005 through 2011, quarterly groundwater monitoring at SWMU 39 consisted of collecting samples from the seven monitoring well listed above to monitor the effects of the monthly in-situ enhanced bioremediation remediation injections (EnSafe, 2011). Since the Lee & Ryan CTO began in 2012, one round of quarterly sampling (March 2012) and the discrete interval sampling wells sampling event (April 2012) were collected before $KMnO_4$ injections in July 2012. For this report Lee & Ryan is looking at the three rounds of samples that were collected pre- and post-injection, including March, June, September, and December 2012. Quarterly samples collected since 2005 have been submitted for laboratory VOC analysis. The groundwater analytical results from January 2005 through December 2012 are listed in **Table 3**.

6.3 Contaminant Impact Fluctuation

The data collected from the seven sampled monitoring wells from 2005 through 2011 have shown the gradual but incomplete degradation of TCE and its degradation products resulting from the reducing geochemical environment created through the monthly injection of sodium acetate and diammonium phosphate into the alluvial-fluvial deposits aquifer during this period (EnSafe, 2011). Results from the September and December 2012 sampling events indicate TCE, cDCE, and VC were detected above their MCLs in samples from four monitoring wells (39G02LF, 39G03LF, 39G04LF, and 39G22LF) and had an acute response to the $KMnO_4$ injections in July 2012, as commented on below.

Monitoring Well 39G02LF

TCE concentrations in monitoring well 39G02LF decreased from 14 to 5.2 µg/L between November 2010 and June 2012 (**Table 3**). First and second quarters (March and June) of 2013 sampling events have indicated decreases in the concentration of TCE to 12 µg/L in June 2013. After $KMnO_4$ injections in July 2012, the concentration of TCE increased to 26 µg/L in September 2012 and 75 µg/L in December 2012, both exceeding the 5 ug/L MCL for TCE. Concentrations of cDCE, tDCE and VC have remained less than their respective MCLs (70, 100, and 2 ug/L) during the same sampling events. The TCE results for all quarterly samples collected from monitoring well 39G02LF since June 2005 are charted on **Trend Graph 1**.

Monitoring Well 39G03LF

TCE concentrations decreased consistently in monitoring well 39G03LF from 99 µg/L in November 2007 to less than the MCL in February 2010 (**Table 3**). TCE concentrations remained below the MCL until March 2012 when a concentration of 1.5 µg/L was reported. The concentration of TCE increased to 5.6 µg/L during the June 2012 sampling event, exceeding the MCL prior to $KMnO_4$ injections, decreased to 4.8 µg/L in September 2012 after injections, and increased again to 6.9 µg/L in December 2012, exceeding the MCL. The TCE results for all quarterly samples collected from monitoring well 39G03LF are charted on **Trend Graph 2**.

Although concentrations of cDCE generally are used to monitor reductive dechlorination of TCE in groundwater, quarterly sampling results for cDCE in monitoring well 39G03LF are complex. Through the reductive dechlorination of TCE from the enhanced bioremediation remedial actions, cDCE concentrations increased between 2005 and May 2010, peaking at 200 µg/L (see **Trend Graph 3**). From this point in time, the concentrations of cDCE have declined steadily to 73 µg/L in March 2012. The concentration of cDCE increased to 140 µg/L in the June 2012 sampling event (**Table 3**), which corresponds to the drop in the water level in this well from March to June. This may be indicative of a source of TCE that is present in the lower part of the overlying confining unit that 1) moved downward into the upper part of the alluvium-fluvial deposits as a result of a decrease in

hydrostatic pressure in the aquifer as water levels declined, or 2) that was flushed downward from the overlying zone with winter-spring 2012 recharge events, and then was reduced to cDCE. Another explanation is that a source of cDCE is present in the confining unit that moved downward into the aquifer between these sampling events. cDCE concentrations declined in the September 2012 sampling event after the $KMnO_4$ injection; however, the cDCE concentration increased to 100 µg/L in December 2012, exceeding the MCL.

VC concentrations in monitoring well 39G03LF have remained less than the MCL.

Monitoring Well 39G04LF

TCE concentrations in monitoring well 39G04LF decreased from 320 to 1.8 µg/L between January 2005 and June 2012 (**Table 3**). Since June 2012, TCE has increased to 47 µg/L in September and 66 µg/L in December 2012, exceeding the MCL in both quarters. The increase in TCE concentration seen in December 2012 likely is the result of the mobilization of impacted groundwater during the $KMnO_4$ injections in July 2012. The TCE results for all quarterly samples collected from monitoring well 39G04LF are charted on **Trend Graph 4**.

Converse to the historical and current TCE concentrations, cDCE concentrations increased from 2005 to November 2010, peaking at 350 µg/L, and correspondingly increased with the degradation of TCE (**Table 3**). After the peak, cDCE consistently declined to 120 µg/L in June 2012, before $KMnO_4$ injections in the following month. The concentration of cDCE continued to drop from 120 µg/L in June 2012 to 52 µg/L in September 2012 after $KMnO_4$ injections and then increased to 110 µg/L in December 2012. The rebound likely is the result of the mobilization and subsequent degradation of TCE impacted groundwater during the $KMnO_4$ injections in July 2012. The cDCE results for all quarterly samples collected from monitoring well 39G04LF are charted on **Trend Graph 5**.

VC concentrations have historically remained below the MCL from the first quarter (January) 2005 to the fourth quarter (December) 2012 (**Table 3**).

Monitoring Well 39G22LF

TCE concentrations in monitoring well 39G22LF decreased from 81 µg/L to less than the MCL between January 2005 and August 2008 (**Table 3**). TCE concentrations remained less than the MCL through September 2012; however, TCE was reported at 8.6 µg/L in December 2012, exceeding the MCL. The rebound likely is the result of the mobilization of impacted groundwater during the $KMnO_4$ injections in July 2012. The TCE results for all quarterly samples collected from monitoring well 39G22LF are charted on **Trend Graph 6**.

Conversely, cDCE concentrations increased from 2005 to a peak of 250 µg/L in November 2010 (**Table 3**). Following the peak in November 2010, cDCE decreased in concentration to 120 µg/L in June 2012 before $KMnO_4$ injections were conducted, and decreased to 22 µg/L in the September 2012 sampling event following the

injections in July 2012. cDCE increased the following quarter (December 2012) to 190 µg/L exceeding the MCL. As with the other wells showing rebounds, increased cDCE likely is the result of the mobilization and degradation of TCE impacted groundwater during the injections in July 2012. The cDCE results for all quarterly samples collected from monitoring well 39G22LF are charted on **Trend Graph 7**.

VC concentrations in 39G22LF remained less than the MCL from 2005 until the VC concentration increased to 59 µg/L in September 2012. In December 2012 the concentration dropped to 6.6 µg/L. The VC spike likely is the result of the increased degradation of TCE and cDCE from mobilized contaminated after the injection of $KMnO_4$. The VC results for all quarterly samples collected from monitoring well 39G22LF are charted on **Trend Graph 8**.

Other Quarterly Sampled Monitoring Wells

Monitoring wells 39G10LF, 39G11LF and 39G12LF have not exhibited TCE, cDCE or VC concentrations exceeding their respective MCLs. **Table 3** lists the analytical results for the quarterly monitoring wells sampled since 2005. Notably, TCE was detected for the first time in samples collected from monitoring wells 39G10LF and 39G11LF in December 2012, but at levels less than the MCL. Because TCE and its degradation products have not been detected in these two wells before, Lee & Ryan assumes the TCE detections in these two wells is the result of redistribution of this contaminant as a result of the KMnO4 injections in July 2012.

7.0 RESULTS OF $KMnO_4$ INJECTIONS

Between 2005 and 2011, the monthly injections of a sodium acetate and diammonium phosphate solution into the alluvial-fluvial deposits aquifer have resulted in the gradual reductive dechlorination of TCE in the groundwater at SWMU 39. To expedite the remediation of groundwater at SWMU 39, Lee & Ryan injected $KMnO_4$ into the aquifer in July 2012. Results from the post-injection quarterly sampling event in December 2012 show unexpected increases in TCE and cDCE in six of the seven regularly sampled monitoring wells compared to results from the previous quarterly sampling event in September 2012. **Figures 8** and **9** depict the interpreted footprints of the northern and southern TCE and cDCE groundwater plumes based on the results of the December 2012 sampling event. These increases most likely are the result of the mobilization of impacted groundwater in the upper part of the aquifer during the injection of 24,850 gallons of $KMnO_4$ in July 2012, and the possible downward movement of cVOCs from the lower part of alluvium-loess (Unit 1) confining unit into the upper part of Unit 2 with seasonally declining water levels causing seasonal concentration increases due to recharge. Additionally, there was a significant VC increase in September 2012 and a subsequent decrease in monitoring well 39G22LF that appeared to be produced post-$KMnO_4$ injections.

December 2012 quarterly groundwater analytical results (**Table 3**) show four monitoring wells (39G02LF, 39G03LF, 39G04LF and 39G22LF) with one or more contaminants that exceed their respective MCLs. These exceedances appear to be connected with the mobilization and redistribution of contaminants in the upper portion of the aquifer following the $KMnO_4$ injection phase. Expectations were that all cVOC contaminant concentrations would decline after the $KMnO_4$ reacted with them. The following two quarters after $KMnO_4$ injections (September and December 2012) showed the reaction of the contaminants to the $KMnO_4$ as erratic and additional quarters of sampling were recommended to determine if the rebound of contaminants seen in the quarterly samples after injection activities would persist or were temporary.

Lee & Ryan recommended continued monitoring and review of subsequent rounds of quarterly sampling results to determine if a second injection was necessary to meet cleanup objectives. See the *Draft Annual 2013 Interim Measures Progress Report* (Lee & Ryan 2014) for subsequent and current data on SWMU 39.

8.0 REFERENCES

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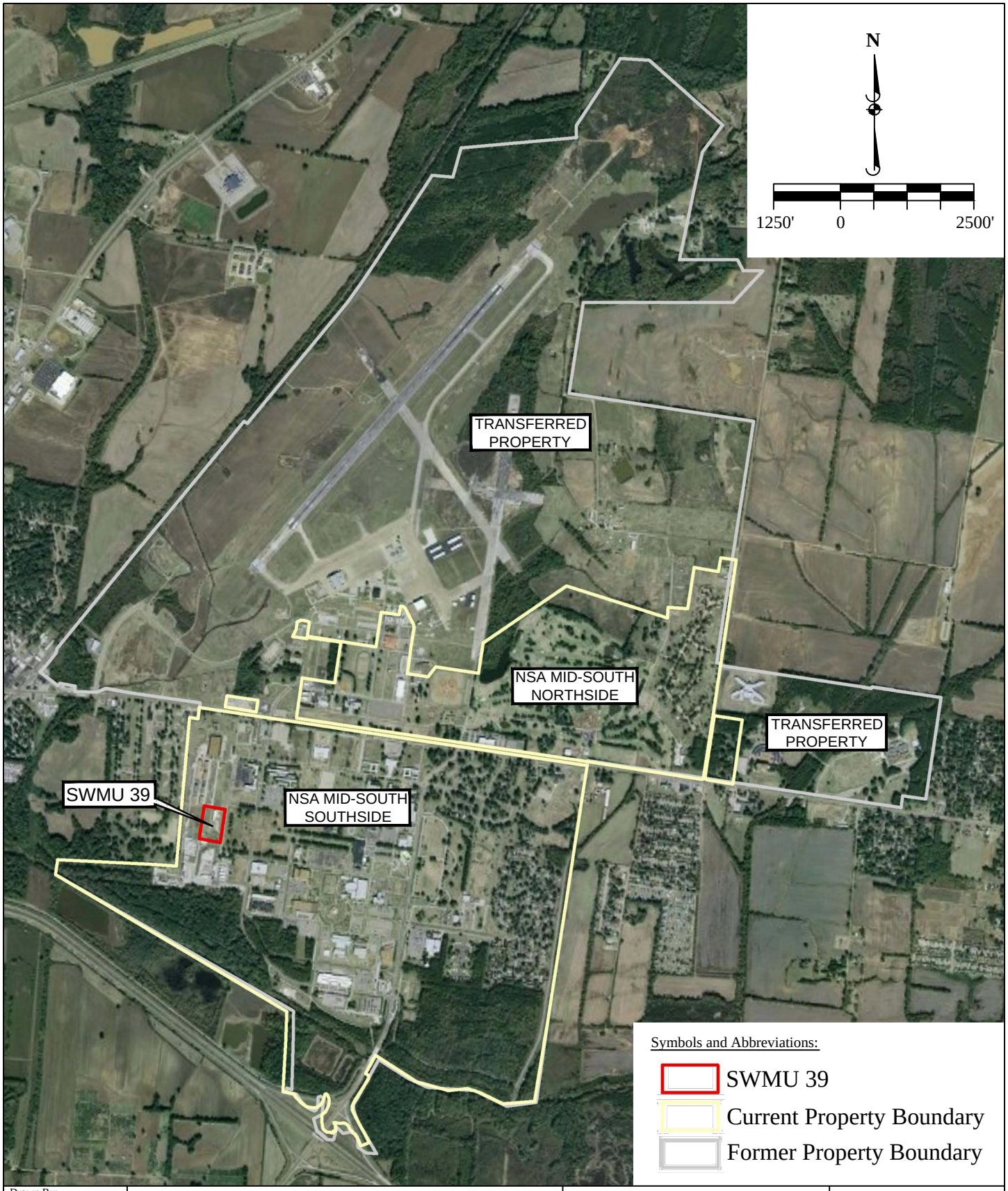
Figures



Drawn By: CW	LEE & RYAN ENVIRONMENTAL • CONSTRUCTION • ENGINEERING	**Vicinity Map**	**Figure 1**
Checked By: RSP		SWMU 39 NSA Mid-South Millington, TN	
Date Drawn: 05/01/13			Project # 11259.07
Revised: -			

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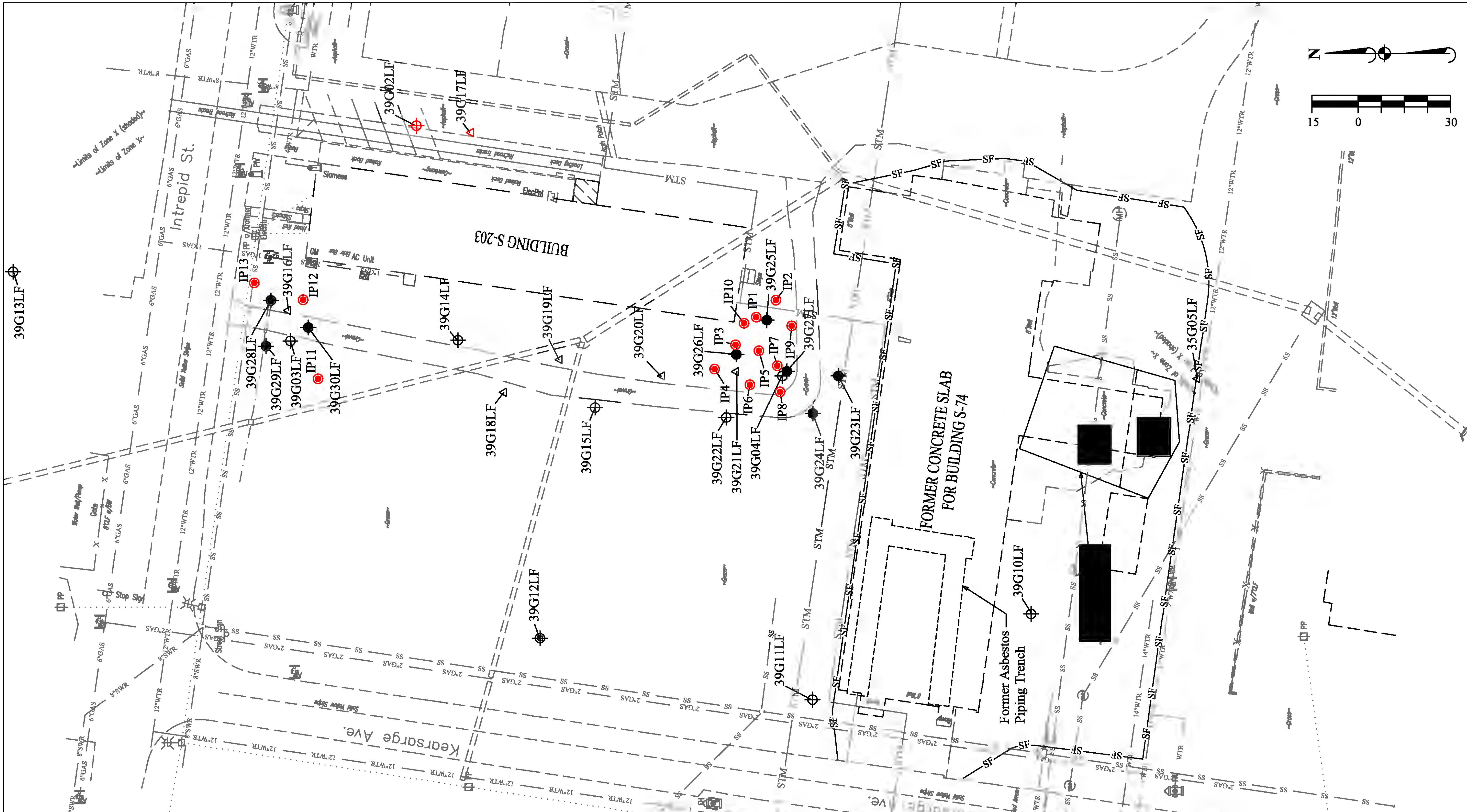

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Drawn By:	CW
Checked By:	RSP
Date Drawn:	03/20/14
Revised:	-

Symbols and Abbreviations:

- = Monitoring Well
- = Injection Well
- = Injection Point
- —SF— = Silt Fence
- = Siamese
- = Miscellaneous (As-Labeled)
- = Fire Hydrant (FH)
- = Water Valve (WV)
- = Water Meter (WM)
- = Gas Valve (GV)
- = Gas Meter (GM)
- = Power Pole (PP)
- = Sign
- = Guy Anchor (Anchor)
- = Bollard
- = Light Standard
- = Sewer Manhole
- = Utility Manhole
- = Drainage Manhole

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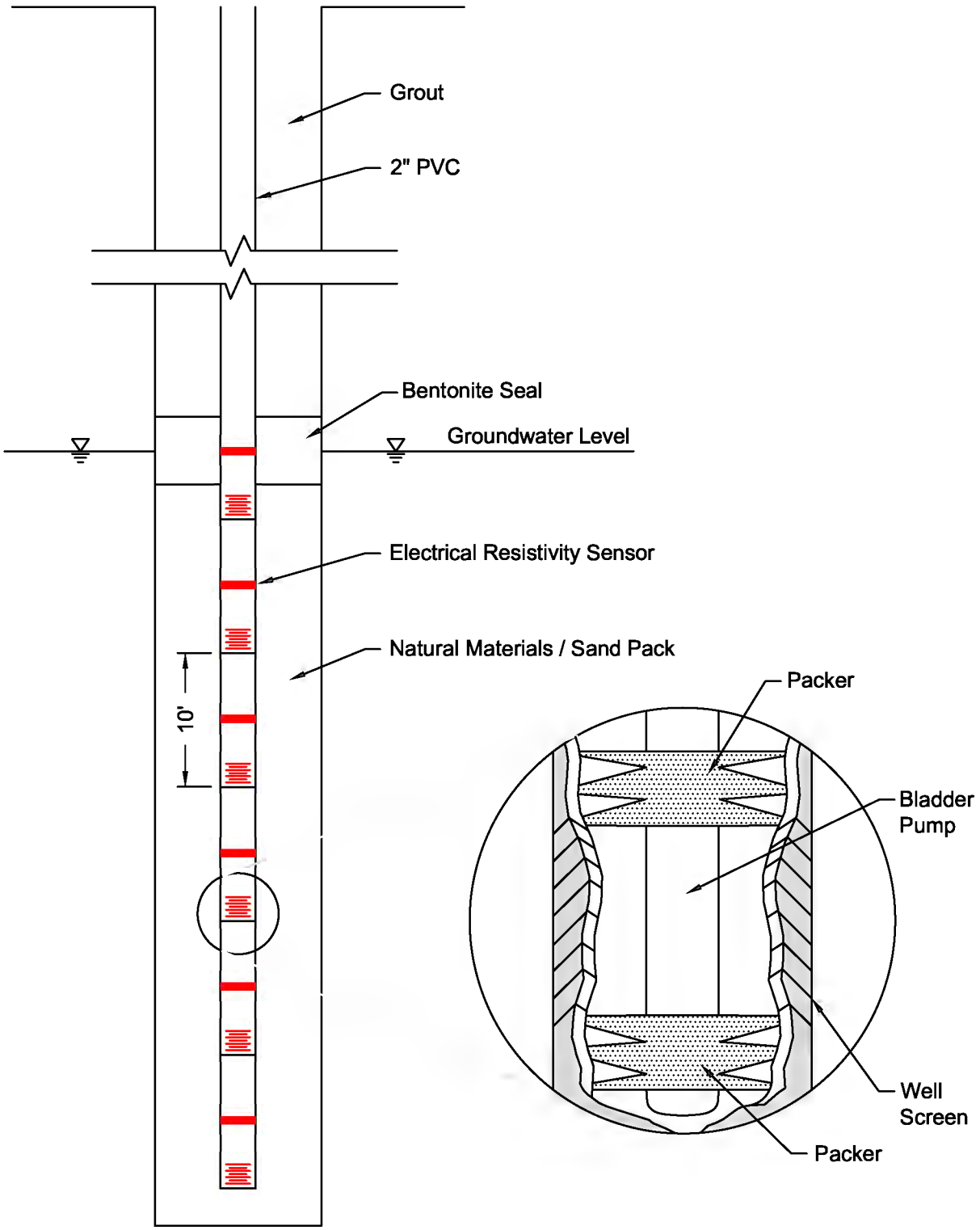
Monitoring Well & Injection Location Map

SWMU 39
NSA Mid-South
Millington, TN

Scale : 1" = 30'

Figure 2

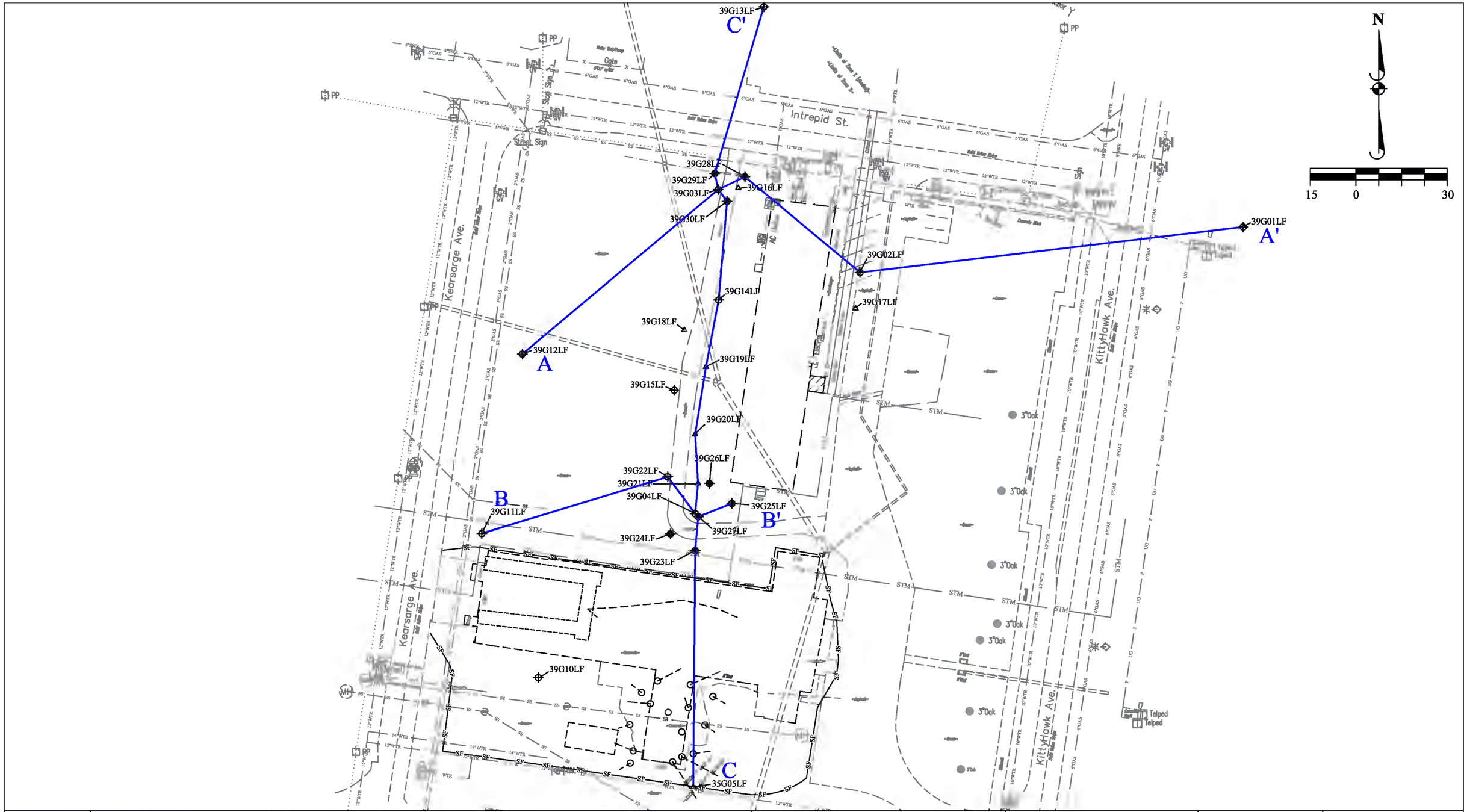
Project # 11259.07



Scale: Not To Scale

LEE & RYAN ENVIRONMENTAL •CONSTRUCTION •ENGINEERING	Project # 11259		Typical Discrete Monitoring Well
SWMU 39 NSA Mid-South Millington, TN	Drawn By: CW	Checked By: RSP	
	Date Drawn: 03/24/14	Revised: -	**Figure 3**

M:\Projects\2011 Projects\Environmental\11259 - EMAC Remediation of TCE Plume - Millington, TN\DWG - Drawings\Concentration Maps - March 2014\11259 - Fig. 3 - Discrete Monitoring Well.dwg, 3/24/2014 2:21:30 PM, Adobe PDF



Drawn By: CW

Checked By: RSP

Date Drawn: 03/20/14

Revised: -

Symbols and Abbreviations:

= Monitoring Well
= Injection Well
= Injection Point
—SF— = Silt Fence
= Siamese
= Miscellaneous (As-Labeled)
= Fire Hydrant (FH)
= Water Valve (WV)
= Water Meter (WM)
= Gas Valve (GV)
= Gas Meter (GM)
= Power Pole (PP)
= Sign
= Guy Anchor (Anchor)
= Bollard
= Light Standard
= Sewer Manhole
= Utility Manhole
= Drainage Manhole

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Conceptual Site Model
Cross-Section
Location Map

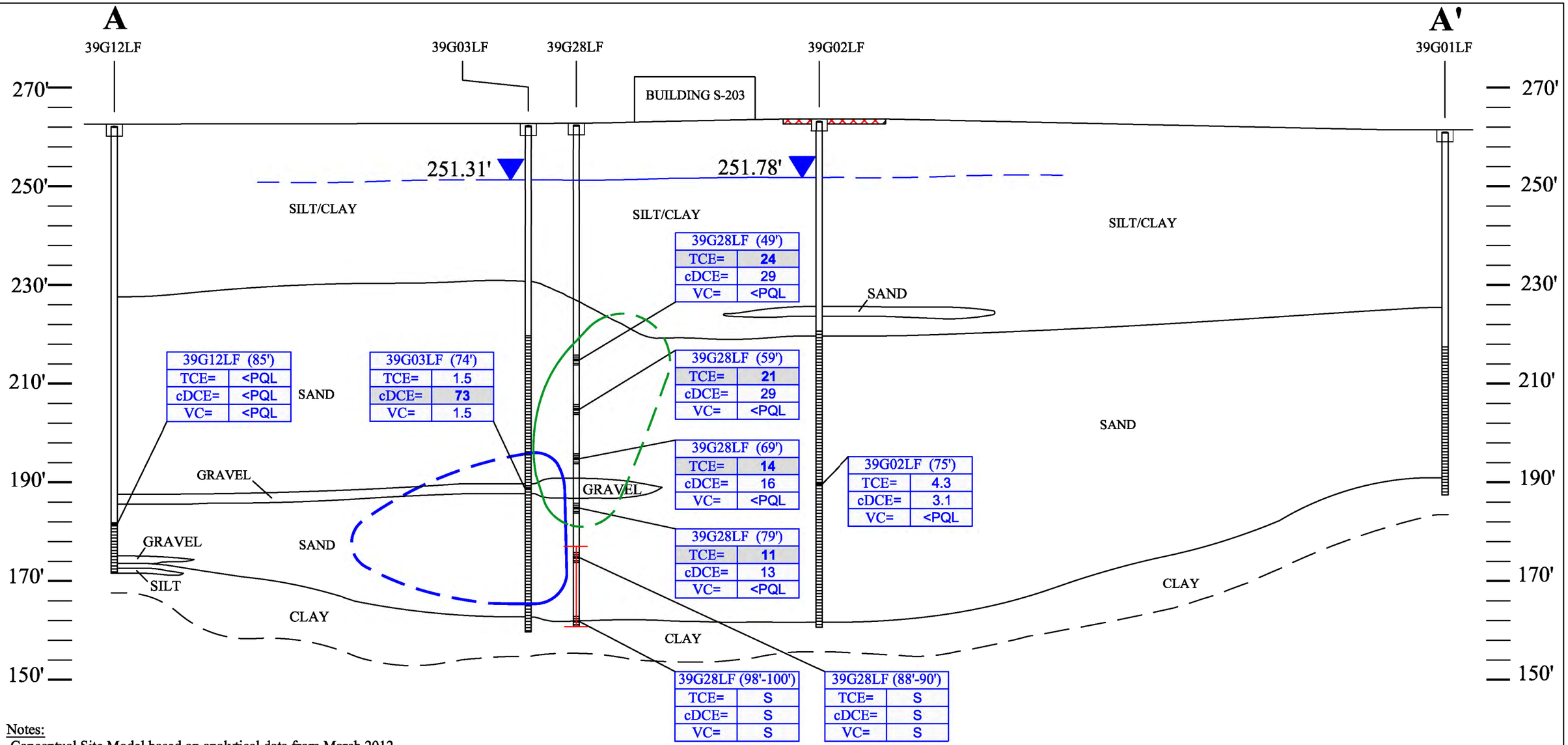
SWMU 39
NSA Mid-South
Millington, TN

Scale : 1" = 30'

Figure 4

Project # 11259

M:\Projects\2011 Projects\Environmental\11259 - EMAC Remediation of TCE Plume - Millington, TN\DWG - Drawings\Concentration Maps - March 2014\11259.07 - Fig. 4 - Analytical Sections Location Map.dwg, 3/20/2014 2:16:33 PM, Adobe PDF.pc3



Notes:
Conceptual Site Model based on analytical data from March 2012 Quarterly Sampling and April 2012 Discrete Sampling events.
Analytical results in **bold** and Highlighted exceed their respective MCL.
Sampling intervals shown for monitoring wells are sampling pump inlet depths.
S = No Sample due to sedimentation in well.
(#) = Approximate sampling pump inlet depth.
(# - #) = Screened interval.
Analytical results reported in micrograms per liter (µg/l).

	TCE	cDCE	VC
MCL	5.0	70	2.0

Vertical Scale: 1" = 20'
Horizontal Scale: 1" = 40'

Drawn By: CW
Checked By: RSP
Date Drawn: 03/20/14
Revised: -

Symbols and Abbreviations:
= FILL
= Well Housing
= 2" PVC Riser
= 2" PVC Screen
= Sediment Filled
= TCE Plume exceeding MCL
= cDCE Plume exceeding MCL

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Conceptual Site Model
Cross-section A-A'

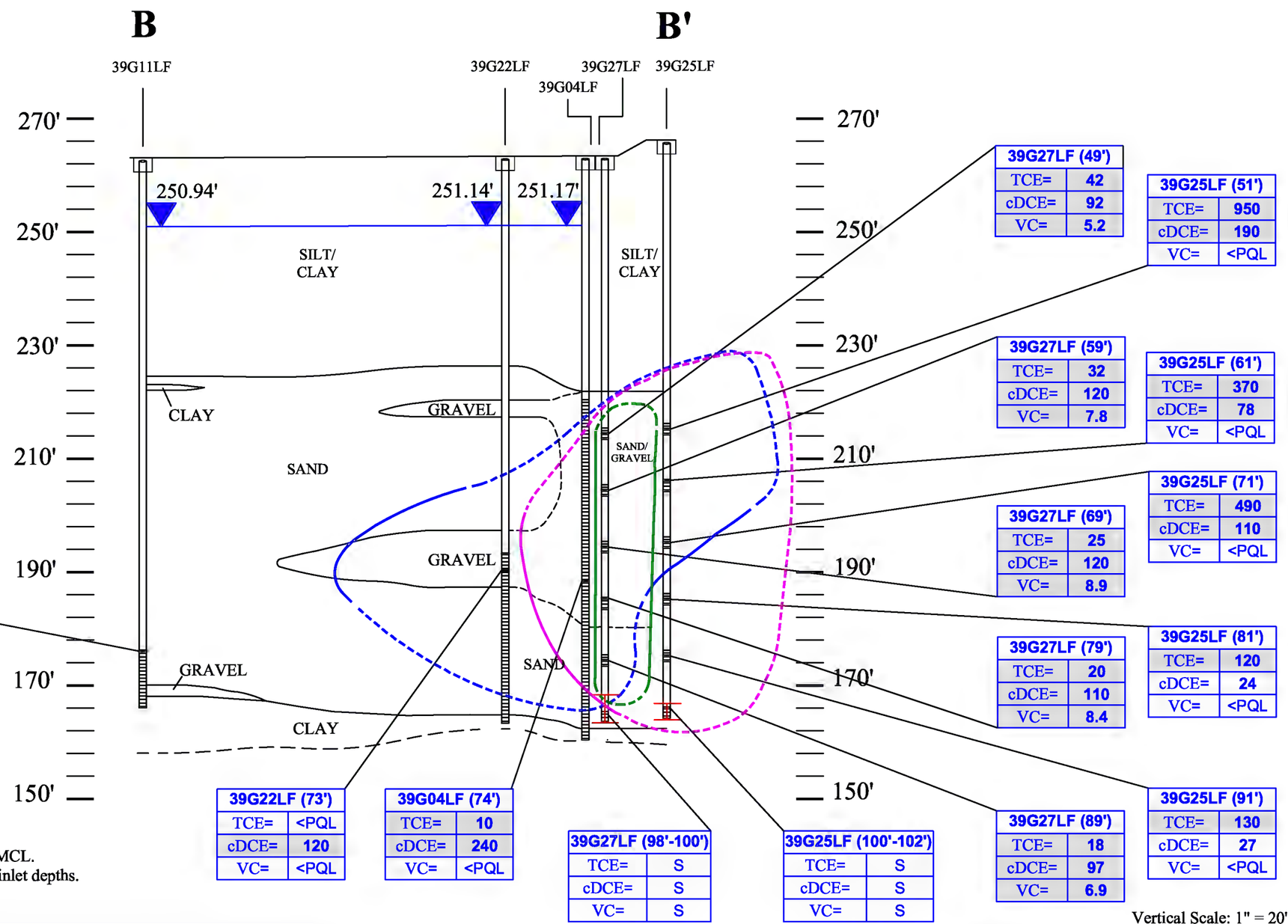
SWMU 39
NSA Mid-South
Millington, TN

Figure 5

Scale : As Noted

Project # 11259

M:\Projects\2011 Projects\Environmental\11259 - EMAC Remediation of TCE Plume - Millington, TN\DWG - Drawings\Concentration Maps - March 2014\11259- EMAC - Fig. 5 - Analytical Section A-A'.dwg, 3/26/2014 2:31:57 PM, Adobe PDF.pc3



Notes:

Conceptual Site Model based on analytical data from March 2012 Quarterly Sampling and April 2012 Discrete Sampling events.

Analytical results in **bold** and Highlighted exceed their respective MCL.

Sampling intervals shown for monitoring wells are sampling pump inlet depths.

S = No Sample due to sedimentation in well.

(#) = Approximate sampling pump inlet depth.

(# - #) = Screened interval.

Analytical results reported in micrograms per liter (µg/l).

	TCE	cDCE	VC
MCL	5.0	70	2.0

Vertical Scale: 1" = 20'
Horizontal Scale: 1" = 40'

Drawn By:	CW
Checked By:	RSP
Date Drawn:	03/20/14
Revised:	-

Symbols and Abbreviations:

= FILL
= Well Housing
= 2" PVC Riser
= 2" PVC Screen
= Sediment Filled
= TCE Plume exceeding MCL
= cDCE Plume exceeding MCL
= VC Plume exceeding MCL

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Conceptual Site Model
Cross-section B-B'

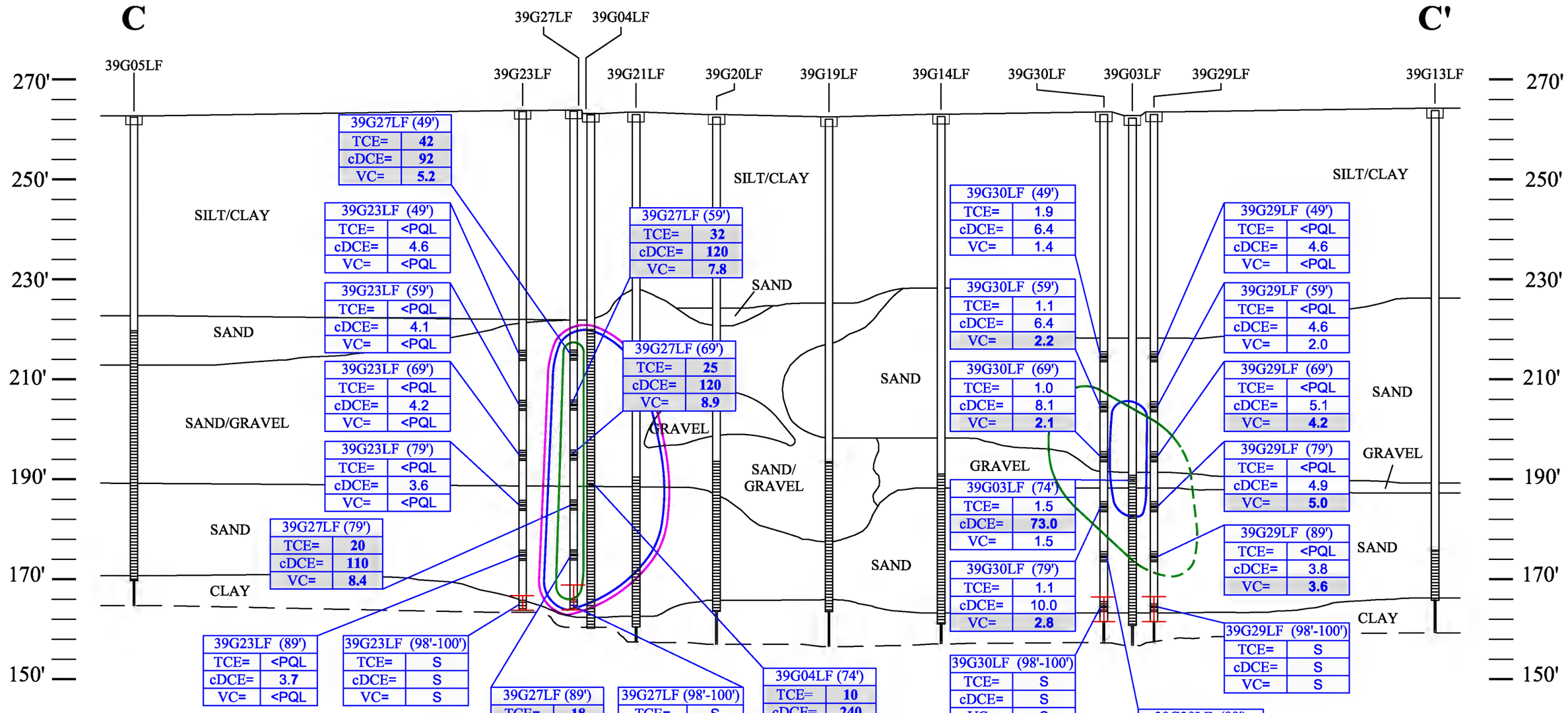
SWMU 39
NSA Mid-South
Millington, TN

Scale : As Noted

Figure 6

Project # 11259

M:\Projects\2011 Projects\Environmental\11259 - EMAC Remediation of TCE Plume - Millington, TN\DWG - Drawings\Concentration Maps - March 2014\11259- EMAC - Fig. 6 - Analytical Section B-B'.dwg, 4/2/2014 12:28:52 PM, Adobe PDF.pc3



Notes:

Conceptual Site Model based on analytical data from March 2012 Quarterly Sampling and April 2012 Discrete Sampling events.

Analytical results in **bold** and Highlighted exceed their respective MCL.

Sampling intervals shown for monitoring wells are sampling pump inlet depths.

S = No Sample due to sedimentation in well.

(#) = Approximate sampling pump inlet depth.

(# - #) = Screened interval.

Analytical results reported in micrograms per liter (µg/l).

	TCE	cDCE	VC
MCL	5.0	70	2.0

Vertical Scale: 1" = 20'
Horizontal Scale: 1" = 40'

Drawn By: CW
Checked By: RSP
Date Drawn: 03/20/14
Revised: -

Symbols and Abbreviations:

= FILL
= Well Housing
= 2" PVC Riser
= 2" PVC Screen
= Sediment Filled
= TCE Plume exceeding MCL
= cDCE Plume exceeding MCL
= VC Plume exceeding MCL

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Conceptual Cross-section C-C'

SWMU 39
NSA Mid-South
Millington, TN

Figure 7

Scale : As Noted

Project # 11259

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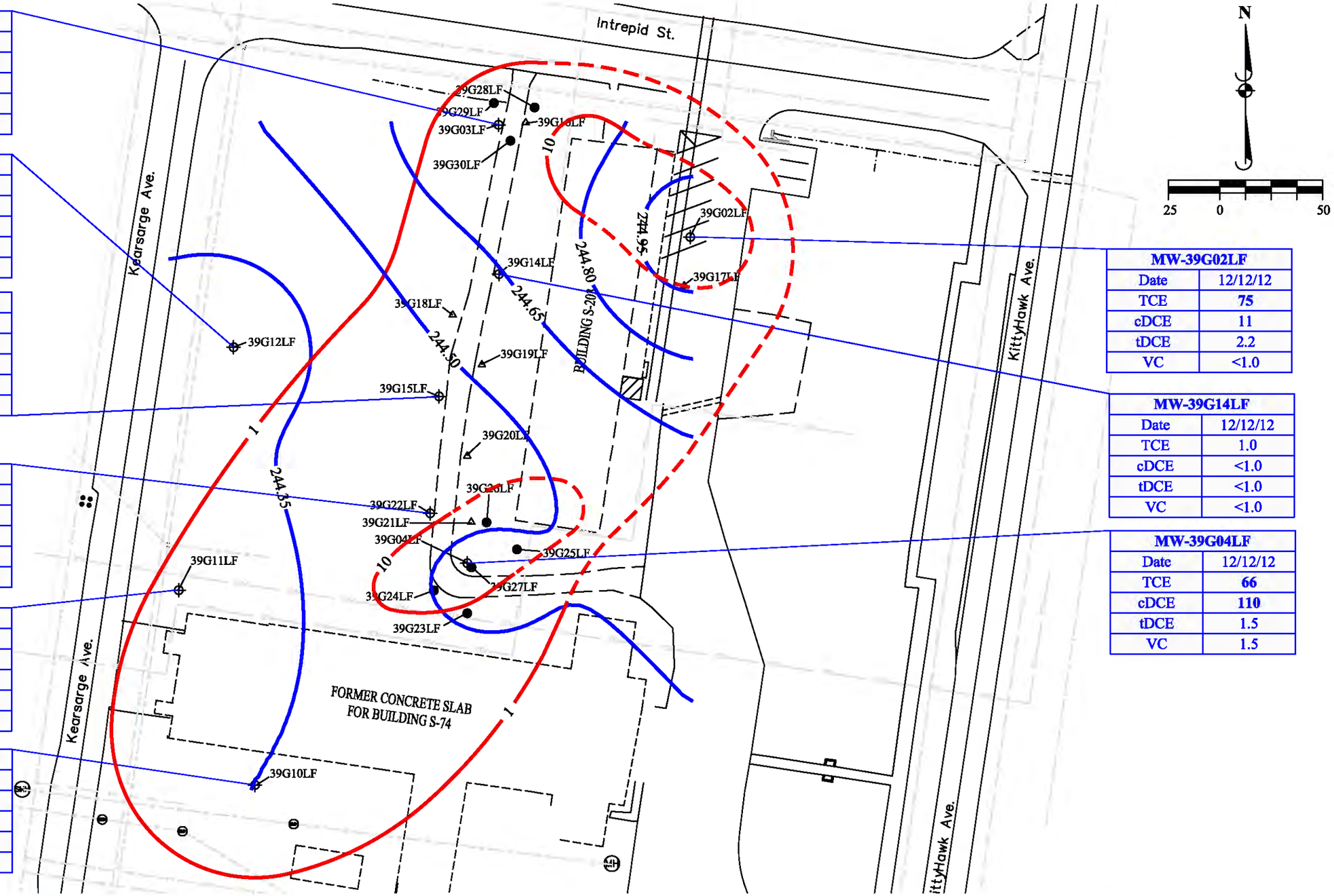

MW-39G03LF	
Date	12/12/12
TCE	**6.9**
cDCE	**100**
tDCE	22
VC	<1.0

MW-39G12LF	
Date	12/12/12
TCE	<1.0
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G15LF	
Date	12/12/12
TCE	1.5
cDCE	2.4
tDCE	<1.0
VC	<1.0

MW-39G22LF	
Date	12/12/12
TCE	**8.6**
cDCE	**190**
tDCE	1.1
VC	**6.6**

MW-39G11LF	
Date	12/12/12
TCE	1.3
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G10LF	
Date	12/12/12
TCE	2.9
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G02LF	
Date	12/12/12
TCE	**75**
cDCE	11
tDCE	2.2
VC	<1.0

MW-39G14LF	
Date	12/12/12
TCE	1.0
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G04LF	
Date	12/12/12
TCE	**66**
cDCE	**110**
tDCE	1.5
VC	1.5

Drawn By: CW
Checked By: RSP
Date Drawn: 03/14/14
Revised: 03/21/14

Symbols and Abbreviations:

- ● = Soil Boring
- ⊕ = Monitoring Well
- ⊕ = Extraction Well
- ◐ = Observation Well
- ✹ = Former Well

- = Concentration Contour
- = Inferred Concentration Contour
- = Potentiometric Contour
- = Inferred Potentiometric Contour

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TCE
Concentration Map
December 12, 2012

SWMU 39
NSA Mid-South
Millington, TN

Scale : 1" = 50'

Figure 8

Project # 11259

M:\Projects\2011 Projects\Environmental\11259 - EMAC Remediation of TCE Plume - Millington, TN\DWG - Drawings\Concentration Maps - March 2014\11259 - EMAC - Fig 8 - TCE Concentration Map.dwg, 3/21/2014 11:43:10 AM, Adobe PDF.pc3

MW-39G03LF	
Date	12/12/12
TCE	**6.9**
cDCE	**100**
tDCE	22
VC	<1.0

MW-39G12LF	
Date	12/12/12
TCE	<1.0
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G15LF	
Date	12/12/12
TCE	1.5
cDCE	2.4
tDCE	<1.0
VC	<1.0

MW-39G22LF	
Date	12/12/12
TCE	**8.6**
cDCE	**190**
tDCE	1.1
VC	**6.6**

MW-39G11LF	
Date	12/12/12
TCE	1.3
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G10LF	
Date	12/12/12
TCE	2.9
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G02LF	
Date	12/12/12
TCE	**75**
cDCE	11
tDCE	2.2
VC	<1.0

MW-39G14LF	
Date	12/12/12
TCE	1.0
cDCE	<1.0
tDCE	<1.0
VC	<1.0

MW-39G04LF	
Date	12/12/12
TCE	**66**
cDCE	**110**
tDCE	1.5
VC	1.5

Drawn By: CW
Checked By: RSP
Date Drawn: 03/14/14
Revised: 03/21/14

Symbols and Abbreviations:

- ● = Soil Boring
- = Monitoring Well
- = Extraction Well
- = Observation Well
- = Former Well
- = Concentration Contour
- = Inferred Concentration Contour
- = Potentiometric Contour
- = Inferred Potentiometric Contour

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cDCE
Concentration Map
December 12, 2012

SWMU 39
NSA Mid-South
Millington, TN

Scale : 1" = 50'

Figure 9

Project # 11259

M:\Projects\2011 Projects\Environmental\11259 - EMAC Remediation of TCE Plume - Millington, TN\DWG - Drawings\Concentration Maps - March 2014\11259 - EMAC - Fig 9 - cDCE Concentration Map.dwg, 3/21/2014 11:49:22 AM, Adobe PDF.pc3

Tables

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
DISCRETE MONITORING WELLS

SMWU 39

NSA Mid-South, Tennessee

WELL ID	Depth (Feet)	SAMPLE COLLECTION DATE	Trichloroethylene			cis-1,2-Dichloroethylene			Vinyl Chloride		
Federal Maximum Contaminant Levels (MCLs)			5			70			2		
			PQL	Result		PQL	Result		PQL	Result	
39G23LF	49	04/25/12	1	1	U	1	4.6		1	1	U
	59	04/25/12	1	1	U	1	4.1		1	1	U
	69	04/25/12	1	1	U	1	4.2		1	1	U
	79	04/25/12	1	1	U	1	3.6		1	1	U
	89	04/25/12	1	1	U	1	3.7		1	1	U
	99	04/25/12		**S**			**S**			**S**	
39G24LF	49	04/25/12	1	1	U	1	**93**		1	**3.2**	
	59	04/25/12	1	1	U	1	**78**		1	**2.9**	
	69	04/25/12	1	1	U	1	**75**		1	**3.0**	
	79	04/25/12	1	1	U	1	1	U	1	**3.4**	
	89	04/25/12	1	1	U	1	**90**		1	**3.0**	
	99	04/25/12		**S**			**S**			**S**	
39G25LF	51	04/23/12	1	**950**		1	**190**		1	1	U
	61	04/23/12	1	**370**		1	**78**		1	1	U
	71	04/23/12	1	**490**		1	**110**		1	1	U
	81	04/23/12	1	**120**		1	24		1	1	U
	91	04/23/12	1	**130**		1	27		1	1	U
	101	04/23/12		**S**			**S**			**S**	
39G26LF	49	04/26/12	1	**8.4**		1	**820**		1	1	U
	59	04/26/12	1	**17**		1	**830**		1	1.1	
	69	04/26/12	1	**15**		1	**840**		1	1.0	
	79	04/26/12	1	**18**		1	**820**		1	1.2	
	89	04/26/12		**S**			**S**			**S**	
	99	04/26/12		**S**			**S**			**S**	
39G27LF	49	04/26/12	1	**42**		1	**92**		1	**5.2**	
	59	04/26/12	1	**32**		1	**120**		1	**7.8**	
	69	04/26/12	1	**25**		1	**120**		1	**8.9**	
	79	04/26/12	1	**20**		1	**110**		1	**8.4**	
	89	04/26/12	1	**18**		1	**97**		1	**6.9**	
	99	04/26/12		**S**			**S**			**S**	

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
DISCRETE MONITORING WELLS

SMWU 39

NSA Mid-South, Tennessee

WELL ID	Depth (Feet)	SAMPLE COLLECTION DATE	Trichloroethylene			cis-1,2-Dichloroethylene			Vinyl Chloride		
Federal Maximum Contaminant Levels (MCLs)			5			70			2		
			PQL	Result		PQL	Result		PQL	Result	
39G28LF	49	04/26/12	1	**24**		1	29		1	1	U
	59	04/26/12	1	**21**		1	29		1	1	U
	69	04/26/12	1	**14**		1	16		1	1	U
	79	04/26/12	1	**11**		1	13		1	1	U
	89	04/26/12		**S**			**S**			**S**	
	99	04/26/12		**S**			**S**			**S**	
39G29LF	49	04/27/12	1	1	U	1	4.6		1	1	U
	59	04/27/12	1	1	U	1	4.6		1	2.0	
	69	04/27/12	1	1	U	1	5.1		1	**4.2**	
	79	04/27/12	1	1	U	1	4.9		1	**5.0**	
	89	04/27/12	1	1	U	1	3.8		1	**3.6**	
	99	04/27/12		**S**			**S**			**S**	
39G30LF	49	04/26/12	1	1.9		1	6.4		1	1.4	
	59	04/26/12	1	1.1		1	6.4		1	**2.2**	
	69	04/26/12	1	1.0		1	8.1		1	**2.1**	
	79	04/26/12	1	1.1		1	10		1	**2.8**	
	89	04/26/12	1	1.0		1	5.1		1	1	U
	99	04/26/12		**S**			**S**			**S**	

User Notes:

Bold = Analytical concentration exceeds MCLs.

PQL = Laboratory Practical Quantitation Limit

U = Reported concentration was below laboratory PQL.

J = Analytical result was an estimate between the method detection limit and PQL.

S = Sediment build-up prevented access to the screened interval.

Depths = Sampling pump inlet depth

Results are reported in micrograms per liter (µg/L)

Table 2
$KMnO_4$ Injection Distribution Data
SWMU 39 - NSA Mid-South, Tennessee

Injection Location	Injection Interval (feet bgs)	$KMnO_4$ Injection Rate (gallons per foot)	$KMnO_4$ Solution Volume (gallons)
IP1	30 to 60	65	1950
IP2	40 to 70	65	1950
IP3	48 to 68	100	2000
IP4	40 to 60	97.5	1950
IP5	40 to 60	97.5	1950
IP6	40 to 56	122	1950
IP7	40 to 60	97.5	1950
IP8	40 to 60	97.5	1950
IP9	40 to 60	97.5	1950
IP10	40 to 60	97.5	1950
IP11	40 to 60	70	1400
IP12	40 to 60	97.5	1950
IP13	40 to 60	97.5	1950
39G17LF	72 to 102	NA	200
39G02LF	43 to 103	NA	12

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS
NSA Mid-South SWMU 39
Millington, Tennessee

Sample ID	Sample Collection Date	Trichloroethylene			cis-1,2-Dichloroethylene			trans-1,2-Dichloroethylene			Vinyl Choride		
Federal Maximum Contaminant Levels (MCLs)		**5.0**			**70**			**100**			**2.0**		
Results are reported in micrograms per liter (µg/L)		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**	
39G02LF	01/25/05	1	0.7	J	1	1	U	1	1	U	2	2	U
	04/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	07/28/05	2	2	U	1	1	U	1	1	U	2	2	U
	10/25/05	2	2	U	1	1	U	1	1	U	2	2	U
	06/06/06	2	2	U	1	1	U	1	1	U	2	2	U
	08/07/06	1	0.4	J	1	1	U	1	1	U	2	2	U
	10/23/06	2	2	U	1	1	U	1	1	U	2	2	U
	02/01/07	2	2	U	1	1	U	1	1	U	2	2	U
	05/16/07	2	2	U	1	1	U	1	1	U	2	2	U
	08/15/07	2	2	U	1	0.3	J	1	1	U	2	2	U
	11/06/07	1	1	U	1	0.9	J	1	1	U	2	2	U
	02/12/08	2	2	U	1	0.7	J	1	1	U	2	2	U
	05/28/08	2	2	U	1	0.4	J	1	1	U	2	2	U
	08/25/08	3	3	U	1	0.6	J	1	1	U	2	2	U
	11/19/08	4	4	U	1	1	U	1	1	U	2	2	U
	02/23/09	3	3	U	1	0.6	J	1	1	U	2	2	U
	05/21/09	3	3	U	1	0.8	J	1	1	U	2	2	U
	08/18/09	4	4	U	1	1	U	1	1	U	2	2	U
	11/09/09	4	4	U	1	1	U	1	1	U	2	2	U
	02/23/10	5	5	U	2	2	U	1	1	U	2	2	U
	05/01/10	7	**7**	U	1	1	U	2	2	U	2	2	U
	09/01/10	2	**12**		2	2	U	2	2	U	2	2	U
	11/01/10	2	**14**		2	2	U	2	2	U	2	2	U
	02/01/11	2	**10**		1	1	U	2	2	U	2	2	U
	03/21/12	1	4.3		1	3.1		1	1	U	1	1	U
	06/27/12	1	**5.2**		1	3.2		1	1	U	1	1	U
	09/19/12	1	**26**		1	7.5		1	1.3		1	1	U
	12/12/12	1	**75**		1	11		1	2.2		1	1	U
39G03LF	01/25/05	1	**86**		1	31		1	1	U	2	2	U
	04/25/05	1	**100**		1	36		1	1	U	2	2	U
	07/28/05	1	**85**		1	33		1	1	U	2	2	U
	10/25/05	1	**87**		1	32		1	1	U	2	2	U
	06/06/06	1	**98**		1	49		1	1	U	2	2	U
	08/07/06	1	**92**		1	44		1	1	U	2	2	U
	10/23/06	1	**100**		1	60		1	1	U	2	0.7	J
	02/01/07	1	**110**		1	52		1	1	U	2	2	U
	05/16/07	1	**89**		1	63		1	1	U	2	2	U
	08/15/07	1	**87**		1	69		1	1	U	2	2	U
	11/06/07	1	**99**		1	**85**		1	1	U	2	2	U
	02/12/08	1	**95**		1	**90**		1	1	U	2	0.5	J
	05/28/08	1	**81**		1	**120**		1	1	U	2	0.6	J
	08/25/08	1	**71**		1	**110**		1	1	U	2	0.6	J
	11/19/08	1	**67**		1	**140**		1	1	U	2	0.8	J
	02/23/09	1	**50**		1	**150**		1	1	U	2	0.6	J
	05/21/09	1	**35**		1	**160**		1	1	U	2	0.5	J
	08/18/09	1	**23**		1	**180**		1	1	U	2	0.7	J
	11/09/09	1	5.0		1	**160**		1	1	U	2	0.7	J
	02/23/10	1	1	U	1	**150**		1	1	U	2	0.7	J
	05/01/10	1	0.8	J	1	**200**		1	1	U	1	1	U
	09/01/10	1	1	U	1	**190**		1	1	U	1	1	U
	11/01/10	1	1	U	1	**160**		1	1	U	1	1	U
	02/01/11	1	1	U	1	**160**		1	1	U	1	1	U
	03/21/12	1	1.5		1	**73**		1	1	U	1	1.5	
	06/27/12	1	**5.6**		1	**140**		1	38		1	1	U
	09/19/12	1	4.8		1	**81**		1	19		1	1.3	
	12/12/12	1	**6.9**		1	**100**		1	22		1	1	U

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS
NSA Mid-South SWMU 39
Millington, Tennessee

Sample ID	Sample Collection Date	Trichloroethylene			cis-1,2-Dichloroethylene			trans-1,2-Dichloroethylene			Vinyl Choride		
Federal Maximum Contaminant Levels (MCLs)		**5.0**			**70**			**100**			**2.0**		
Results are reported in micrograms per liter (µg/L)		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**	
39G04LF	01/25/05	1	**320**		1	12		1	1	U	2	2	U
	04/25/05	1	**190**		1	12		1	1	U	2	2	U
	07/28/05	1	**140**		1	13		1	1	U	2	2	U
	10/25/05	1	**160**		1	13		1	1	U	2	2	U
	06/06/06	1	**160**		1	21		1	1	U	2	2	U
	08/07/06	1	**160**		1	20		1	1	U	2	2	U
	10/23/06	1	**180**		1	28		1	1	U	2	2	U
	02/01/07	1	**170**		1	29		1	1	U	2	2	U
	05/16/07	1	**170**		1	38		1	1	U	2	2	U
	08/15/07	1	**160**		1	56		1	1	U	2	2	U
	11/06/07	1	**170**		1	66		1	1	U	2	2	U
	02/12/08	1	**140**		1	**84**		1	1	U	2	2	U
	05/28/08	1	**130**		1	**130**		1	1	U	2	2	U
	08/25/08	1	**90**		1	**140**		1	1	U	1	0.3	J
	11/19/08	1	**99**		1	**180**		1	1	U	1	0.3	J
	02/23/09	1	**91**		1	**170**		1	1	U	1	0.3	J
	05/21/09	1	**76**		1	**190**		1	1	U	2	2	U
	08/18/09	1	**66**		1	**220**		1	1	U	2	2	U
	11/09/09	1	**56**		1	**220**		1	1	U	1	0.2	J
	02/23/10	1	**39**		1	**250**		1	1	U	2	2	U
	05/01/10	1	**20**		1	**310**		1	1	U	1	1	U
	09/01/10	1	**23**		1	**260**		1	1	U	2	2	U
	11/01/10	1	**32**		1	**350**		1	1	U	2	2	U
	02/01/11	1	**15**		1	**320**		1	1	U	2	0.9	J
	03/21/12	1	**9.6**		1	**240**		1	1	U	1	1	U
	06/27/12	1	1.8		1	**120**		1	1	U	1	1	U
	09/19/12	1	**47**		1	52		1	1	U	1	1	U
	12/12/12	1	**66**		1	**110**		1	1.5		1	1.5	
39G10LF	01/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	04/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	07/28/05	1	1	U	1	1	U	1	1	U	2	2	U
	10/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	06/06/06	1	0.5	J	1	0.8	J	1	1	U	2	2	U
	08/07/06	1	1	U	1	1	U	1	1	U	2	2	U
	10/23/06	1	1	U	1	1	U	1	1	U	2	2	U
	02/01/07	1	1	U	1	1	U	1	1	U	2	2	U
	05/16/07	1	1	U	1	1	U	1	1	U	2	2	U
	08/15/07	1	1	U	1	1	U	1	1	U	2	2	U
	11/06/07	1	1	U	1	1	U	1	1	U	2	2	U
	02/12/08	1	1	U	1	1	U	1	1	U	2	2	U
	05/28/08	1	1	U	1	1	U	1	1	U	2	2	U
	08/25/08	1	1	U	1	1	U	1	1	U	2	2	U
	11/19/08	1	1	U	1	1	U	1	1	U	2	2	U
	02/23/09	1	1	U	1	1	U	1	1	U	2	2	U
	05/21/09		**NS**			**NS**			**NS**			**NS**	
	08/18/09		**NS**			**NS**			**NS**			**NS**	
	11/09/09		**NS**			**NS**			**NS**			**NS**	
	02/23/10		**NS**			**NS**			**NS**			**NS**	
	05/01/10		**NS**			**NS**			**NS**			**NS**	
	09/01/10		**NS**			**NS**			**NS**			**NS**	
	11/01/10		**NS**			**NS**			**NS**			**NS**	
	02/01/11		**NS**			**NS**			**NS**			**NS**	
	03/21/12	1	1	U	1	1	U	1	1	U	1	1	U
	06/27/12	1	1	U	1	1	U	1	1	U	1	1	U
	09/19/12	1	1	U	1	1	U	1	1	U	1	1	U
	12/12/12		2.9		1	1	U	1	1	U	1	1	U

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS
NSA Mid-South SWMU 39
Millington, Tennessee

Sample ID	Sample Collection Date	Trichloroethylene			cis-1,2-Dichloroethylene			trans-1,2-Dichloroethylene			Vinyl Choride		
Federal Maximum Contaminant Levels (MCLs)		**5.0**			**70**			**100**			**2.0**		
Results are reported in micrograms per liter (µg/L)		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**	
39G11LF	01/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	04/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	07/28/05	1	1	U	1	1	U	1	1	U	2	2	U
	10/25/05	1	1	U	1	1	U	1	1	U	2	2	U
	06/06/06	1	1	U	1	1	U	1	1	U	2	2	U
	08/07/06	1	1	U	1	1	U	1	1	U	2	2	U
	10/23/06	1	1	U	1	1	U	1	1	U	2	2	U
	02/01/07	1	1	U	1	1	U	1	1	U	2	2	U
	05/16/07	1	1	U	1	1	U	1	1	U	2	2	U
	08/15/07		**NS**			**NS**			**NS**			**NS**	
	11/06/07		**NS**			**NS**			**NS**			**NS**	
	02/12/08		**NS**			**NS**			**NS**			**NS**	
	05/28/08		**NS**			**NS**			**NS**			**NS**	
	08/25/08		**NS**			**NS**			**NS**			**NS**	
	11/19/08		**NS**			**NS**			**NS**			**NS**	
	02/23/09		**NS**			**NS**			**NS**			**NS**	
	05/21/09		**NS**			**NS**			**NS**			**NS**	
	08/18/09		**NS**			**NS**			**NS**			**NS**	
	11/09/09		**NS**			**NS**			**NS**			**NS**	
	02/23/10		**NS**			**NS**			**NS**			**NS**	
	05/01/10		**NS**			**NS**			**NS**			**NS**	
	09/01/10		**NS**			**NS**			**NS**			**NS**	
	11/01/10		**NS**			**NS**			**NS**			**NS**	
	02/01/11		**NS**			**NS**			**NS**			**NS**	
	03/21/12	1	1	U	1	1	U	1	1	U	1	1	U
	06/27/12	1	1	U	1	1	U	1	1	U	1	1	U
	09/19/12	1	1	U	1	1	U	1	1	U	1	1	U
	12/12/12	1	1.3		1	1	U	1	1	U	1	1	U
39G12LF	01/25/05	1	**8.0**		2	2	U	1	1	U	2	2	U
	04/25/05	1	**12**		3	3	U	1	1	U	2	2	U
	07/28/05	1	3.0		1	0.9	J	1	1	U	2	2	U
	10/25/05	1	3.0		1	0.7	J	1	1	U	2	2	U
	06/06/06	2	2	U	1	1	U	1	1	U	2	2	U
	08/07/06	1	0.4	J	1	1	U	1	1	U	2	2	U
	10/23/06	1	1	U	1	1	U	1	1	U	2	2	U
	02/01/07	1	1	U	1	1	U	1	1	U	2	2	U
	05/16/07	2	2	U	1	0.8	J	1	1	U	2	2	U
	08/15/07	1	1	U	1	1	U	1	1	U	2	2	U
	11/06/07	1	1	U	1	0.5	J	1	1	U	2	2	U
	02/12/08	1	1	U	1	0.7	J	1	1	U	2	2	U
	05/28/08	1	1	U	1	0.9	J	1	1	U	2	2	U
	08/25/08	1	1	U	2	2	U	1	1	U	2	2	U
	11/19/08	1	1	U	2	2	U	1	1	U	2	2	U
	02/23/09	1	1	U	1	1	U	1	1	U	2	2	U
	05/21/09		**NS**			**NS**			**NS**			**NS**	
	08/18/09		**NS**			**NS**			**NS**			**NS**	
	11/09/09		**NS**			**NS**			**NS**			**NS**	
	02/23/10		**NS**			**NS**			**NS**			**NS**	
	05/01/10		**NS**			**NS**			**NS**			**NS**	
	09/01/10		**NS**			**NS**			**NS**			**NS**	
	11/01/10		**NS**			**NS**			**NS**			**NS**	
	02/01/11		**NS**			**NS**			**NS**			**NS**	
	03/21/12	1	1	U	1	1	U	1	1	U	1	1	U
	06/27/12	1	1	U	1	1	U	1	1	U	1	1	U
	09/19/12	1	1	U	1	1	U	1	1	U	1	1	U
	12/12/12	1	1	U	1	1	U	1	1	U	1	1	U

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS
NSA Mid-South SWMU 39
Millington, Tennessee

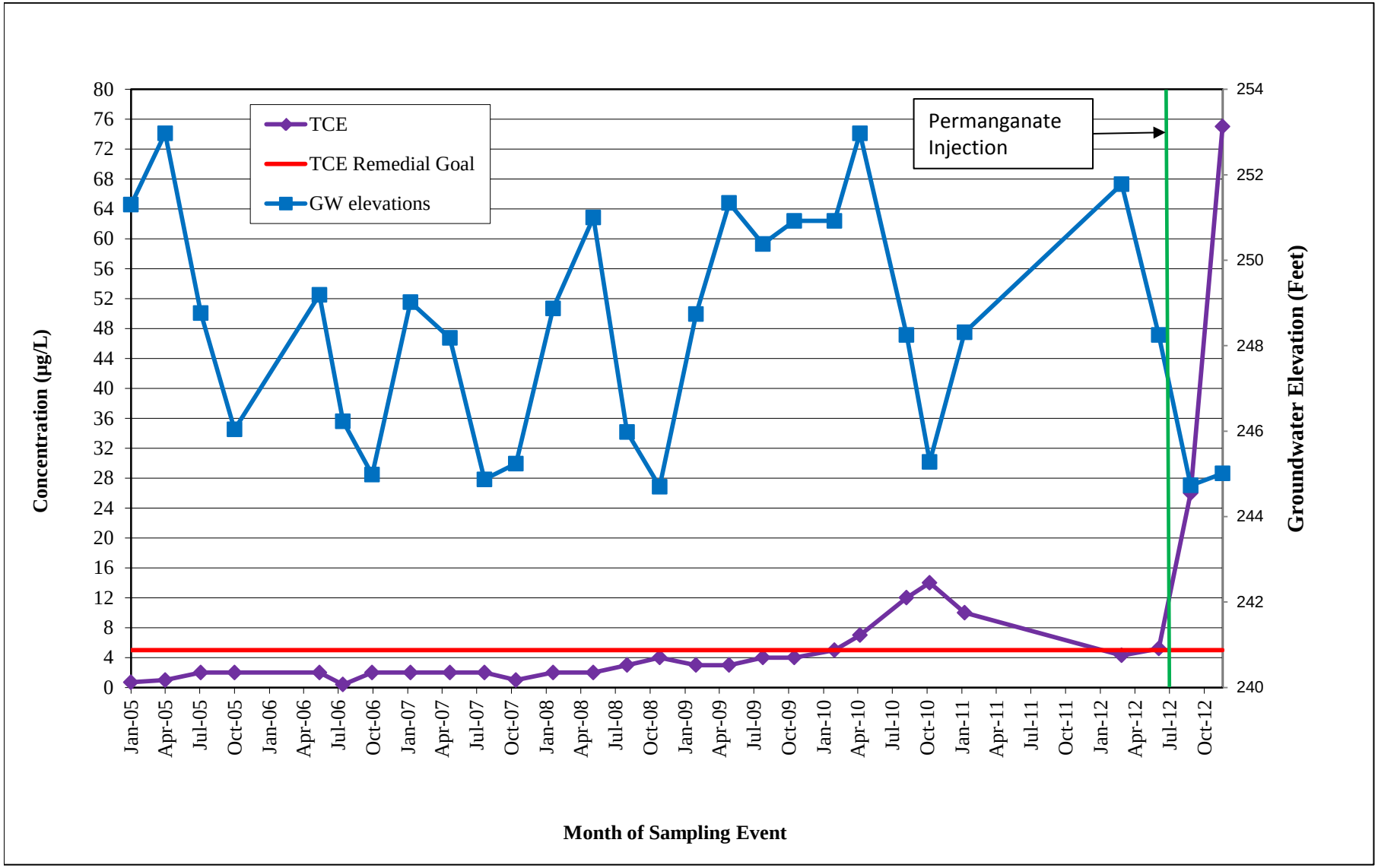
Sample ID	Sample Collection Date	Trichloroethylene			cis-1,2-Dichloroethylene			trans-1,2-Dichloroethylene			Vinyl Choride		
Federal Maximum Contaminant Levels (MCLs)		**5.0**			**70**			**100**			**2.0**		
Results are reported in micrograms per liter (µg/L)		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**		**PQL**	**Result**	
39G22LF	01/25/05	1	**81**		1	3.0		1	1	U	2	2	U
	04/25/05	1	**70**		1	56		1	1	U	2	2	U
	07/28/05	1	**20**		1	**83**		1	1	U	2	2	U
	10/25/05	1	**12**		1	**97**		1	1	U	2	2	U
	06/06/06	1	**28**		1	**120**		1	1	U	2	2	U
	08/07/06	1	**23**		1	**84**		1	1	U	2	2	U
	10/23/06	1	**31**		1	**85**		1	1	U	2	2	U
	02/01/07	1	**66**		1	67		1	1	U	2	2	U
	05/16/07	1	**57**		1	69		1	1	U	2	2	U
	08/15/07	1	**27**		1	64		1	1	U	2	2	U
	11/06/07	1	**40**		1	**110**		1	1	U	2	2	U
	02/12/08	1	**18**		1	**120**		1	1	U	2	2	U
	05/28/08	1	**7.0**		1	**150**		1	1	U	2	2	U
	08/25/08	1	4.0		1	**140**		1	1	U	2	2	U
	11/19/08	1	1	U	1	**180**		1	1	U	2	2	U
	02/23/09	1	1	U	1	**160**		1	1	U	2	2	U
	05/21/09	1	1	U	1	**160**		1	1	U	2	2	U
	08/18/09	1	1	U	1	**170**		1	1	U	2	2	U
	11/09/09	1	1	U	1	**170**		1	1	U	2	2	U
	02/23/10	1	1	U	1	**210**		1	1	U	2	2	U
	05/01/10	1	1	U	1	**190**		1	1	U	2	2	U
	09/01/10	1	1	U	1	**160**		1	1	U	2	2	U
	11/01/10	1	1	U	1	**250**		1	1	U	2	2	U
	02/01/11	1	1	U	1	**210**		1	1	U	2	0.9	J
	03/21/12	1	1	U	1	**120**		1	1	U	2	2	U
	06/27/12	1	1	U	1	**120**		1	1	U	1	1	U
	09/19/12	1	1	U	1	22		1	1	U	2	**59**	
	12/12/12	1	**8.6**		1	**190**		1	1.1		2	**6.6**	

User Notes:

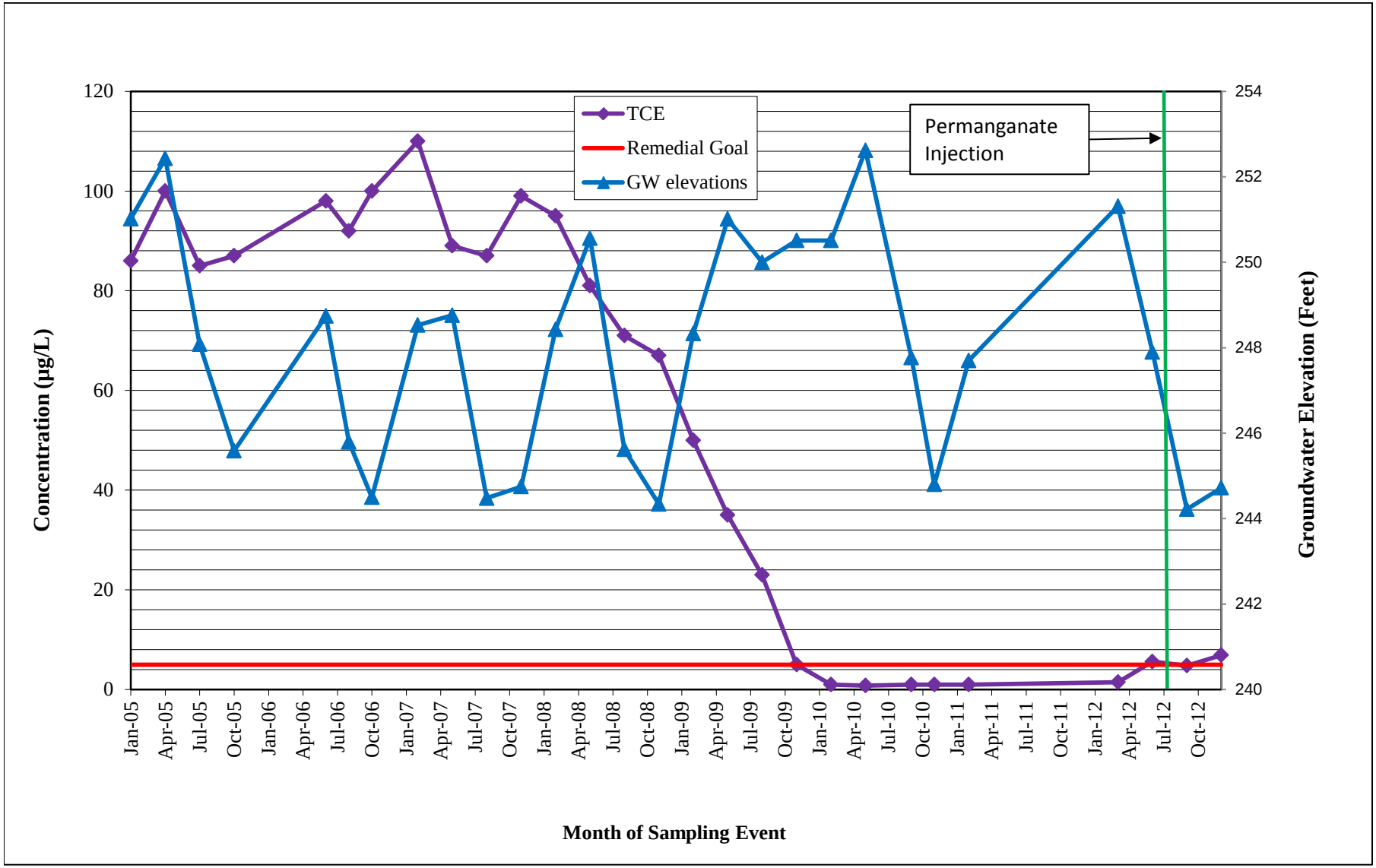
Bold = analytical concentration exceeds MCLs.
PQL = Laboratory Practical Quantitation Limit
U = Reported concentration was below laboratory PQL.
J = Analytical result was an estimate between the method detection limit and PQL.
NS - No Sample Taken

Graphs

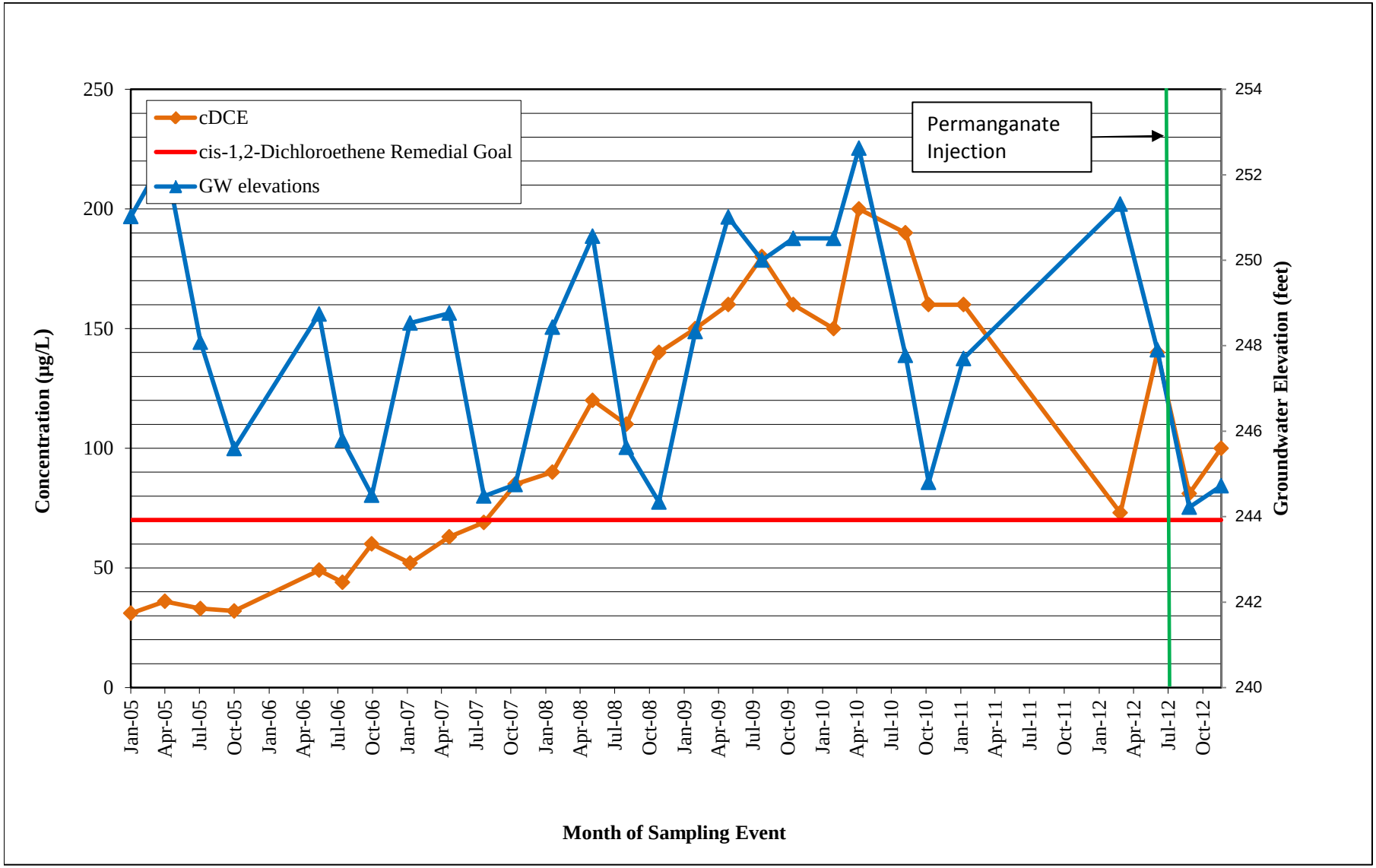
TREND GRAPH 1
TCE Analytical Results - 39G02LF
SWMU 39
NSA Mid-South, Tennessee



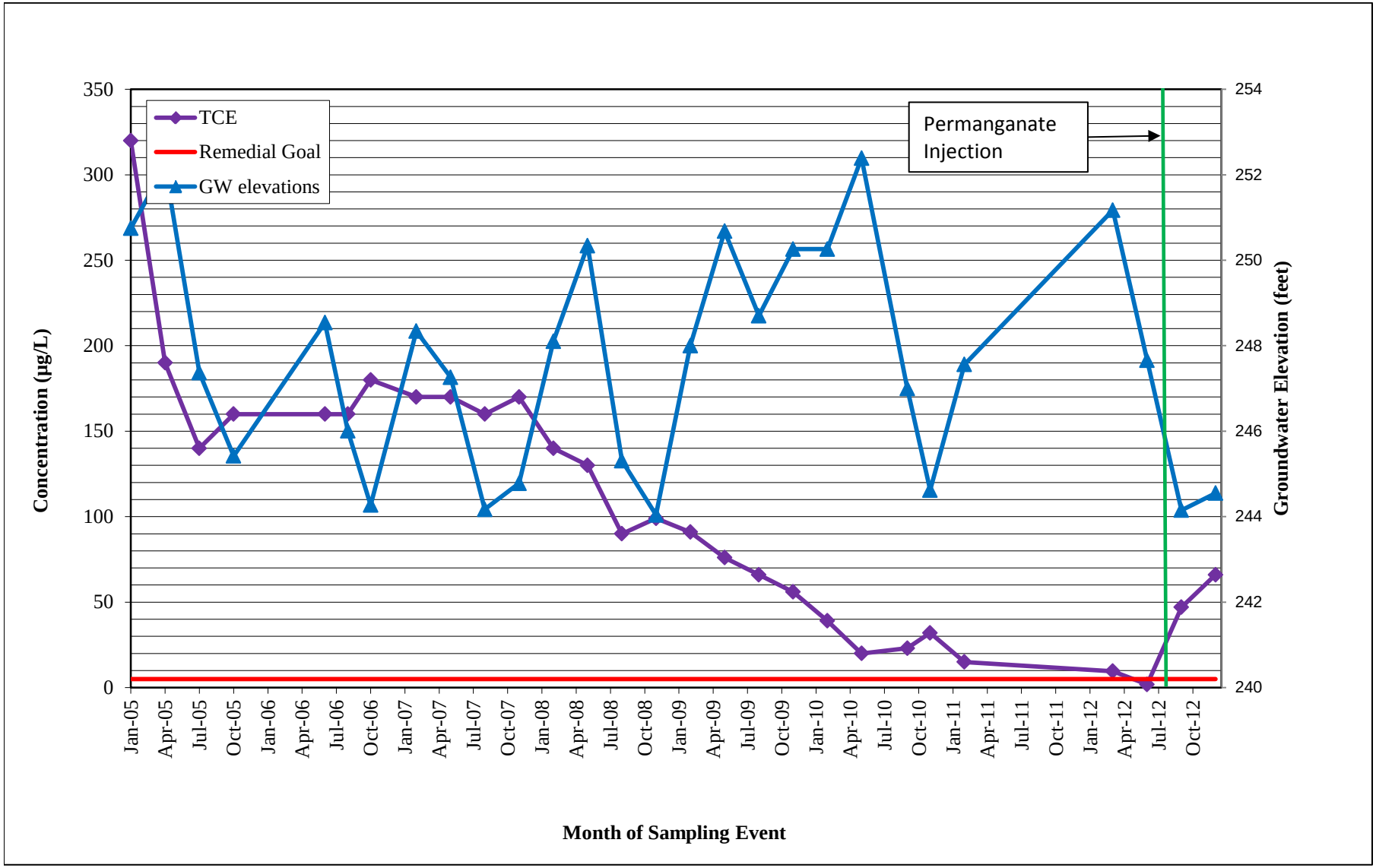
TREND GRAPH 2
TCE Analytical Results - 39G03LF
SWMU 39
NSA Mid-South, Tennessee



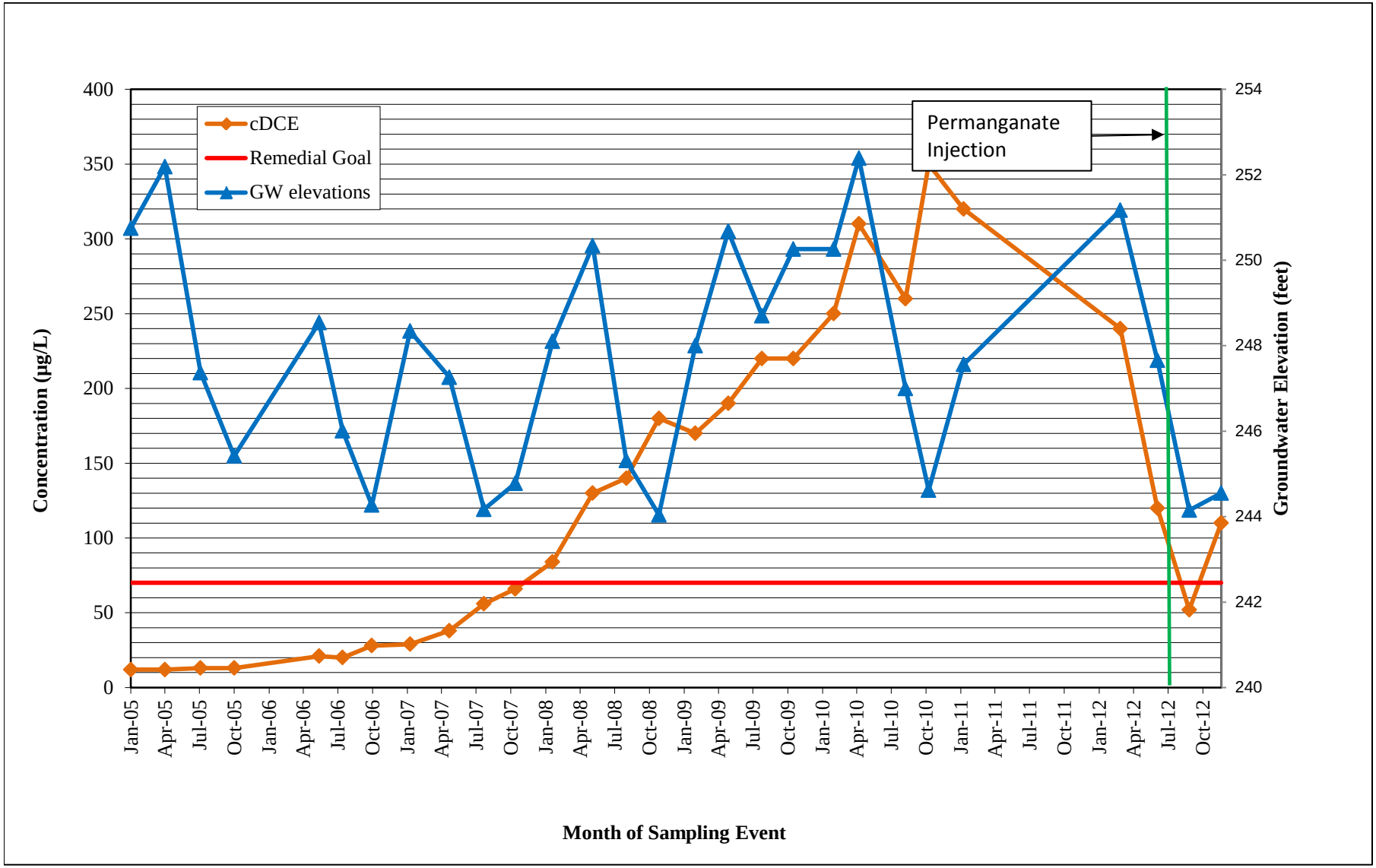
TREND GRAPH 3
cis-1,2-DCE Analytical Results - 39G03LF
SWMU 39
NSA Mid-South, Tennessee



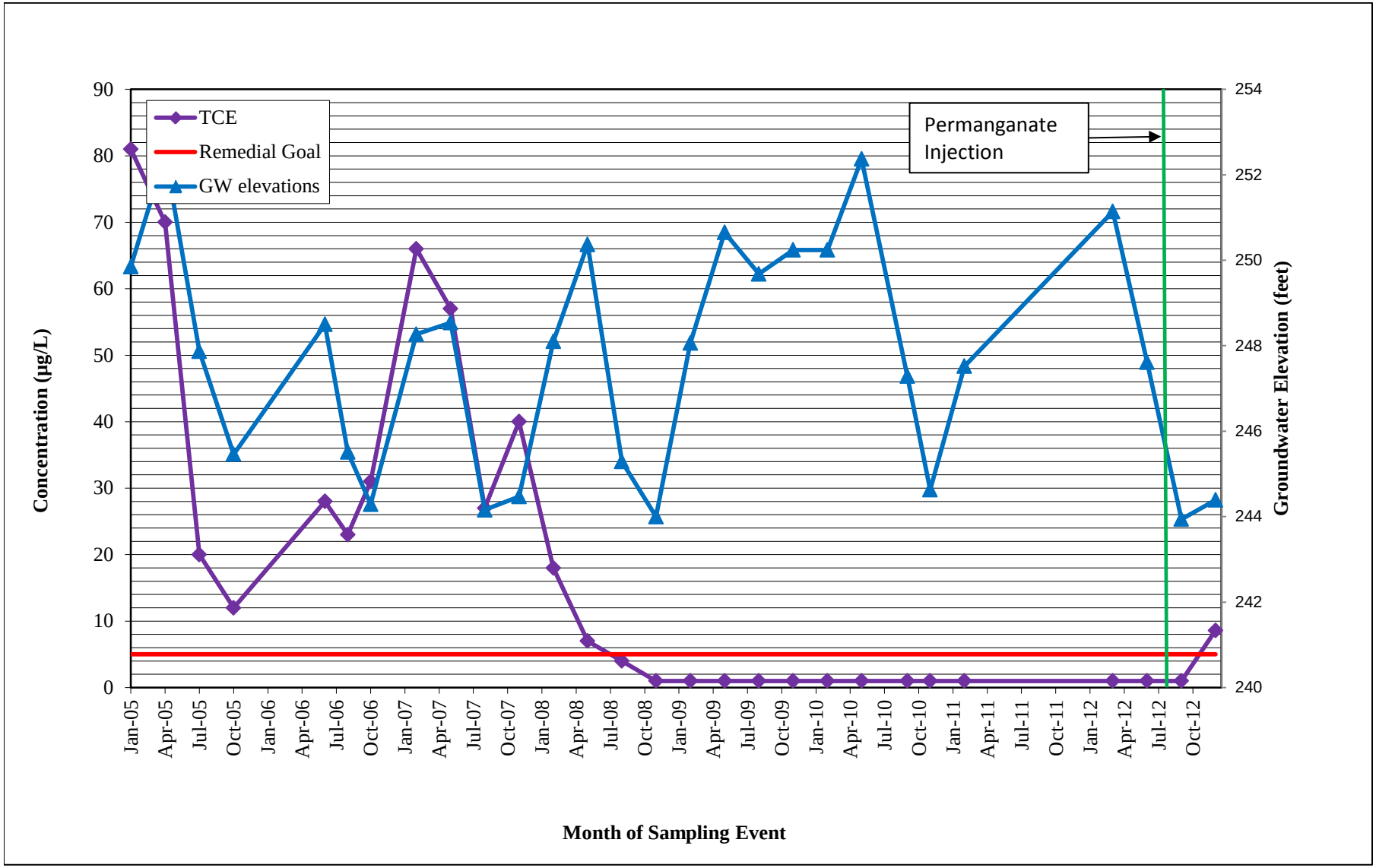
TREND GRAPH 4
TCE Analytical Results - 39G04LF
SWMU 39
NSA Mid-South, Tennessee



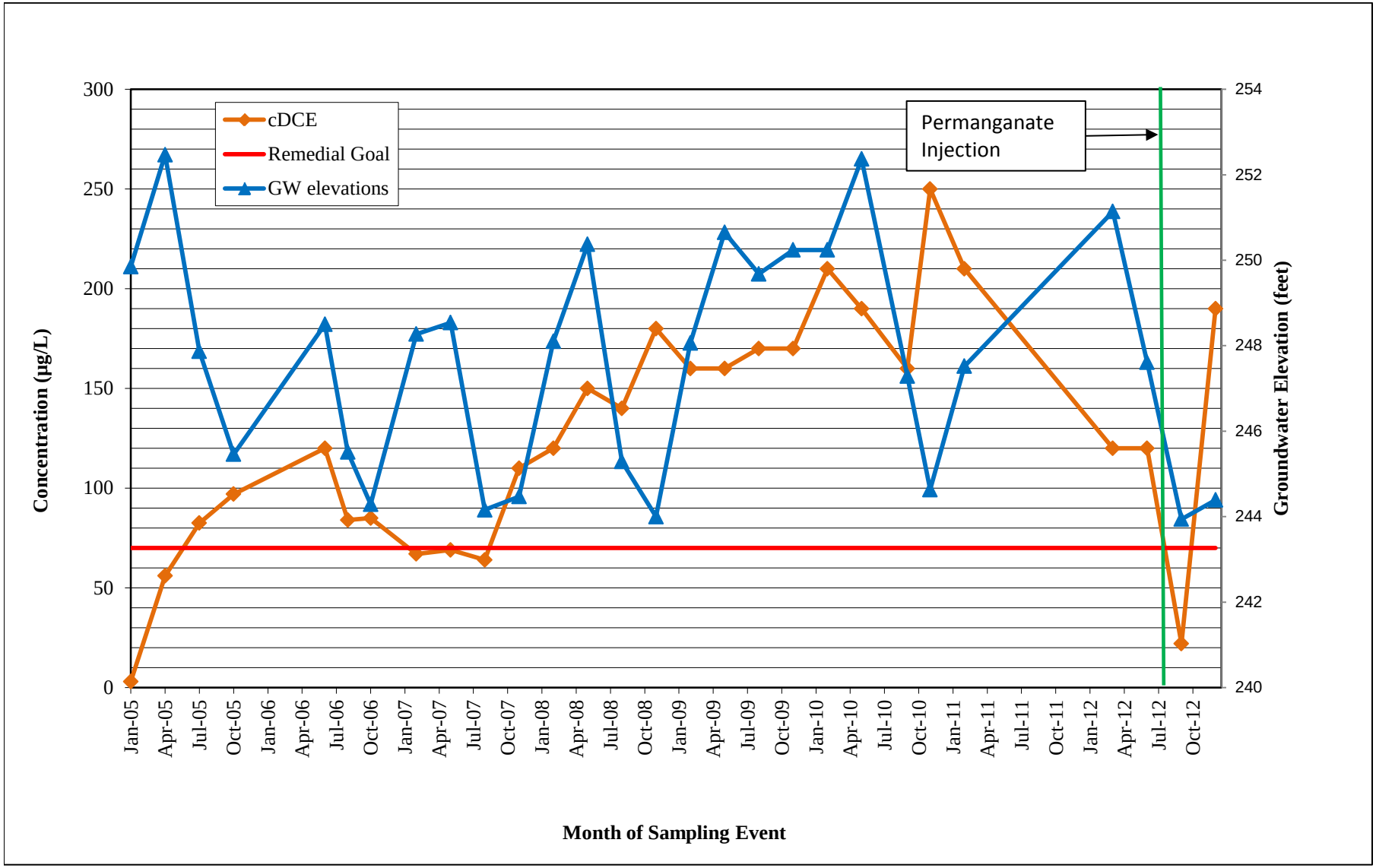
TREND GRAPH 5
cis-1,2-DCE Analytical Results - 39G04LF
SWMU 39
NSA Mid-South, Tennessee



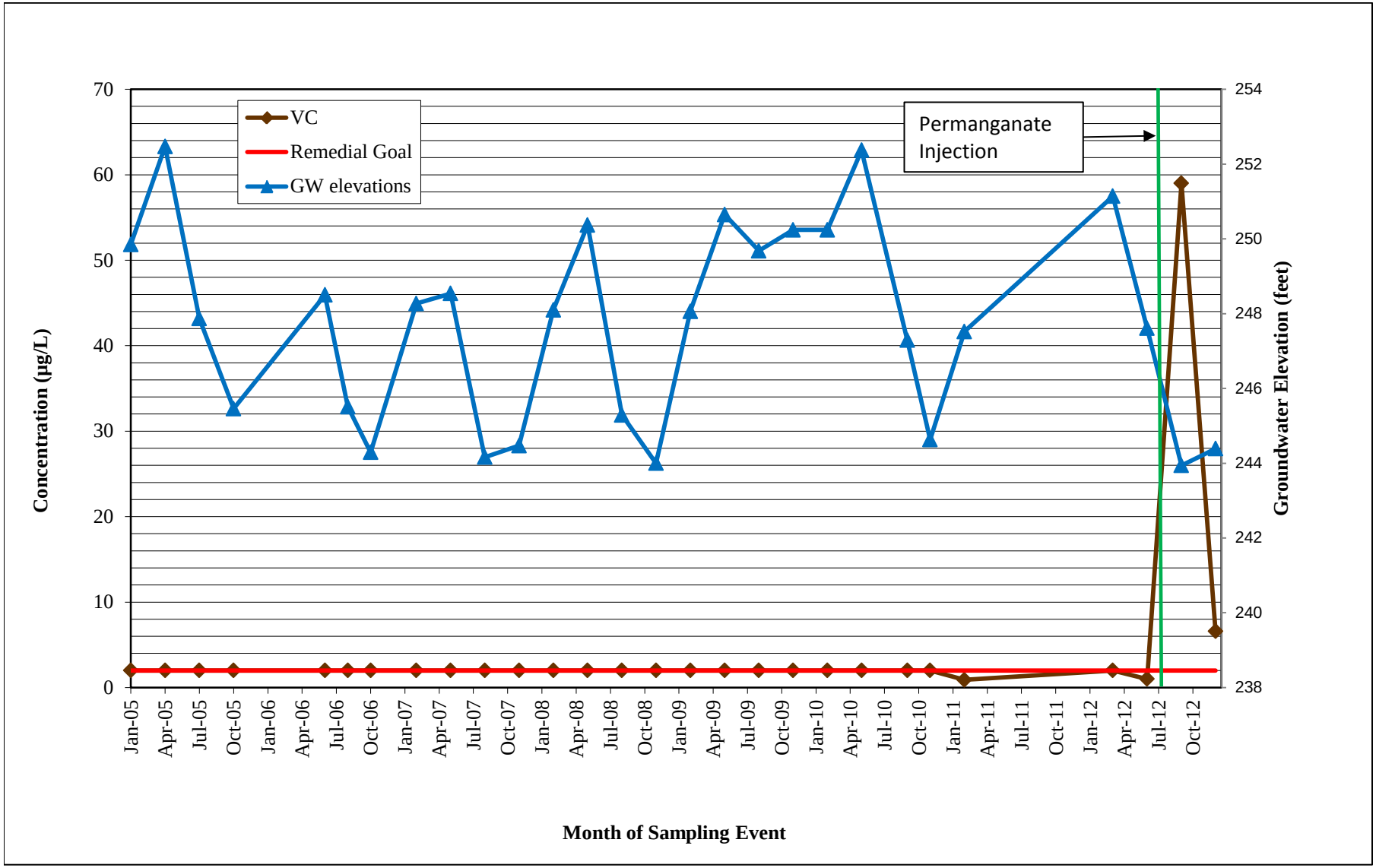
TREND GRAPH 6
TCE Analytical Results - 39G22LF
SWMU 39
NSA Mid-South, Tennessee



TREND GRAPH 7
cis-1,2-DCE Analytical Results - 39G22LF
SWMU 39
NSA Mid-South, Tennessee



TREND GRAPH 8
VC Analytical Results - 39G22LF
SWMU 39
NSA Mid-South, Tennessee



Appendix A
Laboratory Analytical Data and Chain-of-Custody

Company Name/Address:

SEMS Inc. - Memphis TN

1683 North Shelby Oaks Dr. Suite 1
Memphis,TN 38134

Billing Information:

Mr. Steve Murphy
1683 North Shelby Oaks Dr, Suit
Memphis,TN 38134

Analysis/Container/Preservative

H225

Chain of Custody
Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: Mr Scott Randall

Email to: srandall@leeenvironmental.com

Project Description: NAVY EMAC Millington, TN

City/State Collected: Millington TN

Phone: (901) 381-5225
FAX: (901) 381-5224

Client Project #: 11259

ESC Key: LEERYAN-EMAC

Collected by: (print) John Hall

Site/Facility ID#:

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day. 200%
___ Next Day. 100%
___ Two Day. 50%
___ Three Day. 25%

Date Results Needed:

Email? __No ✓ Yes
FAX? __No __Yes

CoCode SEMSMEM (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	8260D	8270D					Remarks/Contaminant	Sample # (lab only)
39 G 28LF 50ft	G	GW	50ft	4/27/12	0950	2	X							L572474-01
39 G 28LF 60ft	G	GW	60ft	4/27/12	1026	2	X							02
39 G 28LF 70ft	G	GW	70ft	4/27/12	1116	2	X							03
39 G 28LF 80ft	G	GW	80ft	4/27/12	1156	2	X							04
39 G 28LF 90ft	G	GW	90ft	4/27/12	1242	2	X							05
duplicate #5	G	GW	—	4/27/12	—	2	X							06
trip blank	G	GW	—	4/27/12	—	1		X						07

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks: 5274 8784 3968

Flow _____ Other _____

Relinquished by: (Signature)	Date: 4/27/12	Time: 1730	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐	Condition: JT (lab use only) OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.2 / Bottles Received: 13VP	CoC Seals Intact ✓ Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) C. [illegible]	Date: 4.28.12 / Time: 0946	pH Checked: / NCF:

Lee & Ryan Environmental

1707 Melody Lane
Greenfield,IN 46140

Billing information:

Mr. Scott Randall
1707 Melody Lane

Greenfield,IN 46140

Chain of Custody
D157

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: **Mr. Scott Randall**

Email: **srandall@leeandryan.com**

Project Description: **Navy EMAC Millington, TN**

City/State Collected: Millington TN

Phone: **(800) 680-8987**
FAX:

Client Project #: 11259

Lab Project #: **LEERYAN-EMAC**

Collected by (print): John Hall

Site/Facility ID#:

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
✓ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: **LEERYAN** (lab use only)
Template/Prelogin: **T78146/ P389200**
Cooler #: 38 415
Shipped Via: **FedEX Ground**

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	VOC Screen 2ozClr-NoPres			Remarks/Contaminant	Sample # (lab only)
39 6 30 LF 50ft	6	GW	50ft	4/26/12	1643	2			X						L572138-01
dup # 3	6	GW	—	4/26/12	—	2			X						-02
~~Insts 39 6 30 LF 50ft~~	~~6~~	~~GW~~	~~50ft~~	~~4/26/12~~	~~1643~~	~~2~~			~~X~~						
39 6 29 LF 50ft	6	GW	50ft	4/26/12	1716	2			X						-03
39 6 30 LF 60ft	6	GW	60ft	4/26/12	1742	2			X						-04
39 6 29 LF 60ft	6	GW	60ft	4/26/12	1811	2			X						-05
39 6 30 LF 70ft	6	GW	70ft	4/26/12	1832	2			X						-06
~~TRIP BLANK~~ 39 6 29 LF 70f	6	GW	70ft	4/26/12	1851	2			X						-07
~~TRIP BLANK~~ 39 6 30 LF 80ft	6	GW	80ft	4/26/12	1912	2			X						-08

*Matrix: SS - Soil (GW) Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

5274 8784 3902

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition: (lab use only) N
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1° Bottles Received: 43	COC Seal Intact: ✓ Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/27/12 Time: 0900	pH Checked: NCF:

Lee & Ryan Environmental

1707 Melody Lane
Greenfield,IN 46140

Billing information:

Mr. Scott Randall
1707 Melody Lane

Greenfield,IN 46140

Chain of Custody
Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: **Mr. Scott Randall**

Email: **srandall@leeandryan.com**

Project Description: **Navy EMAC Millington, TN**

City/State Collected: Millington TN

Phone: **(800) 680-8987**
FAX:

Client Project #: 11259

Lab Project # **LEERYAN-EMAC**

Collected by (print): Scott Hall

Site/Facility ID#:

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: **LEERYAN** (lab use only)
Template/Prelogin **T78146/ P389200**
Cooler #: 38 415
Shipped Via: **FedEX Ground**

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	VOC Screen 2ozClr-NoPres				Remarks/Contaminant	Sample # (lab only)
39 G 26 LF 50ft	G	GW	50ft	4/26/12	0927	2			X							LS72138 -09
39 G 27 LF 50ft	G	GW	50ft	4/26/12	1002	2			X							-10
39 G 26 LF 60ft	G	GW	60 ft	4/26/12	1037	2			X							-11
39 G 27 LF 60ft	G	GW	60 ft	4/26/12	1112	2			X							-12
39 G 26 LF 70ft	G	GW	70ft	4/26/12	1147	2			X							-13
39 G 27 LF 70ft	G	GW	70ft	4/26/12	1216	2			X							-14
39 G 26 LF 80 ft	G	GW	80ft	4/26/12	1249	2			X							-15
39 G 27 LF 80f	G	GW	80ft	4/26/12	1343	2			X							-16
~~39 G 26 LF 90~~ 39 G 27 LF 90ft	G	GW	90ft	4/26/12	1436	2			X							-17

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only)
	4/26/12	2130			OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 Bottles Received: 43	COC Seal Intact: ✓ Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/27/12 Time: 0900	pH Checked: NCF:

Lee & Ryan Environmental

1707 Melody Lane
Greenfield,IN 46140

Billing information:

Mr. Scott Randall
1707 Melody Lane

Greenfield,IN 46140

Report to: Mr. Scott Randall

Email: srandall@leeandryan.com

Project Description: Navy EMAC Millington, TN

City/State Collected: Millington TN

Phone: (800) 680-8987
FAX:

Client Project #: 11259

Lab Project #: LEERYAN-EMAC

Collected by (print): John Hall

Site/Facility ID#:

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
✓ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? __No X Yes
FAX? __No __Yes

Analysis/Container/Preservative

Chain of Custody
Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Acctnum: LEERYAN (lab use only)
Template/Prelogin: T78146/ P389200
Cooler #: 16 415
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	VOC Screen 2ozClr-NoPres			Remarks/Contaminant	Sample # (lab only)
~~TRIP BLANK~~ 39 6 29 LF 80ft	G	GW	80ft	4/26/12	1936	2			X	~~X~~				LS72138	-18
~~TRIP BLANK~~ dup#14	G	GW	—	4/26/12	—	2			X	~~X~~					-19
~~TRIP BLANK~~ 39 6 29 LF 90ft	G	GW	90ft	4/26/12	2004	2			X	~~X~~					-20
TRIP BLANK MSDS 2 39 6 29 LF 90ft	G	GW	90ft	4/26/12	2004	2			X	~~X~~					-21 / -22
TRIP BLANK	G	GW	—	4/26/12	—	1				X				-23	~~-22~~
~~TRIP BLANK~~		~~GW~~				~~1~~				~~X~~					

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only) OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1° Bottles Received: 43	COC Seal Intact: ✓ Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/27/12 Time: 0900	pH Checked: NCF:
	4/26/12	2130			

Troy Dunlap

From: Alan Harvill
Sent: Wednesday, April 25, 2012 9:30 AM
To: Login (Login@esclabsciences.com); JD Gentry (JGentry@esclabsciences.com); Ken Buckley (KBuckley@esclabsciences.com)
Subject: LEERYAN Rush

Importance: High

Arriving today : 12-16 GW for V8260 log 3 day TAT due Monday 4/30
Arriving tomorrow: 12-16 GW for V8260, log 2 day TAT due Monday 4/30
Arriving Friday: 12-16 GW for V8260, log next day TAT due Monday 4/30

Rush approved by Eric Johnson.

Please advise.
Thanks,

Alan Harvill
Technical Service Representative
Phone: 615-773-9787
Toll Free: 1-800-767-5859 ext:9787
Email: aharvill@esclabsciences.com

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

ESC
L·A·B S·C·I·E·N·C·E·S

NON-CONFORMANCE FORM

Login No.: 572138

Date: 4/27/12

Evaluated by: [illegible]

Client: LEERYan

Non-Conformance (check applicable items)

- ☐ Parameter(s) past holding time
- ☐ Improper temperature
- ☐ Improper container type
- ☐ Improper preservation
- ☐ Container lid not intact
- ☐ Login Clarification Needed
- ☐ Chain of custody is incomplete
- ☐ Chain of Custody is missing (see below)
- ☐ Broken container(s) (See below)
- ☑ Broken container: sufficient sample volume remains for analysis requested (See below)

If no COC: Received by_____
Date:_____ Time:_____
Temp:____ Cont. Rec____ pH:____
☐ Fedex ☐ UPS ☐SWA ☐ Other____
Tracking #_____

- ☐ Insufficient packing material around container
- ☐ Insufficient packing material inside cooler
- ☐ Improper handling by carrier (FedEx / UPS / Courier
- ☐ Sample was frozen

Comments: 39 G 30LF 50ft vial broken in lab.

Login Instructions:

TSR Initials: ____

Client informed by call / email / fax / voice mail date: ____ time: ____

Client contact: ____

Lee & Ryan Environmental

1707 Melody Lane
Greenfield,IN 46140

Billing information:

Mr. Scott Randall
1707 Melody Lane

Greenfield,IN 46140

Chain of Custody
Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

H199

Report to: Mr. Scott Randall

Email: srandall@leeandryan.com

Project Description: Navy EMAC Millington, TN

City/State Collected: Millington, TN

Phone: (800) 680-8987
FAX:

Client Project #: 11259

Lab Project #: LEERYAN-EMAC

Collected by (print): John Hall

Site/Facility ID#: NSA Mid-South

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
✓ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: LEERYAN (lab use only)
Template/Prelogin: T78146/ P389200
Cooler #: JB 415
Shipped Via: FedEX Ground

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	VOC Screen 2ozClr-NoPres			Remarks/Contaminant	Sample # (lab only)
39 6 24 LF 50ft	Grab	GW	50ft	4/25/12	1405	2			X						LS72035-01
39 6 24 LF 60ft	G	GW	60ft	4/25/12	1453	2			X						02
39 6 24 LF 70ft	G	GW	70ft	4/25/12	1537	2			X						03
39 6 23 LF 50ft	G	GW	50ft	4/25/12	1605	2			X						04
Dup #2	G	GW	—	4/25/12	—	2			X						05
39 6 24 LF 80ft	G	GW	80ft	4/25/12	1640	2			X						06
39 6 23 LF 60ft	G	GW	60ft	4/25/12	1740	2			X					-07 ~~09~~ 07	AN
39 6 24 LF 90ft	G	GW	90ft	4/25/12	1810	2			X					-08 ~~08~~	
MSD5	G	GW	—	4/25/12	—	2			X					-09/10 ~~07/08~~	

*Matrix: SS - Remarks:

Invoice :
Customer : SEMSMEMR
Phone # : 6157585858
Dept :
Date : 07/23/2009
Weight : 10.0
COD : 0.00
DV : 0.00
Shipping : 0.00
Special : 0.00
Handling : 0.00
Total : 0.00

Svcs: STANDARD OVERNIGHT
TRCK: 9669 7458 6975
(615) 758-5858 Ship Dat

9669 7458 6975

pH ___ Temp ___
Flow ___ Other ___

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___	Condition: N OK (lab use only) TD
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 C Bottles Received: 24VP	COC Seal Intact: ___ Y ___ N ✓ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4-26-12 Time: 0900	pH Checked: NCF: YES

Lee & Ryan Environmental

1707 Melody Lane
Greenfield,IN 46140

Billing information:

Mr. Scott Randall
1707 Melody Lane

Greenfield,IN 46140

Chain of Custody
Page ___ of ___

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: **Mr. Scott Randall**

Email: **srandall@leeandryan.com**

Project Description: **Navy EMAC Millington, TN**

City/State Collected: Millington TN

Phone: **(800) 680-8987**
FAX:

Client Project #: 11259

Lab Project #: **LEERYAN-EMAC**

Collected by (print): John Hall

Site/Facility ID#: NSA Midsouth

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day. 100%
✓ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: **LEERYAN** (lab use only)
Template/Prelogin: **T78146/ P389200**
Cooler #: JB 415
Shipped Via: **FedEX Ground**

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	VOC Screen 2ozClr-NoPres				Remarks/Contaminant	Sample # (lab only)
39 G 23 LF 70ft	Grab	GW	70ft	4/25/12	1847	2			X							L572035-11
39 G 23 LF 80ft	Grab	GW	80ft	4/25/12	1930	2			X							12
39 G 23 LF 90ft	Grab	GW	90ft	4/25/12	2020	2			X							13
		GW				2			X							
		GW				2			X							
		GW				2			X							
		GW				2			X							
		GW				2			X							
		GW				2			X							

*Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition: AK N TD (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.2° Bottles Received: 24VP	COC Seal Intact: ___ Y ___ N ✓ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4-26-12 Time: 0900	pH Checked: NCF: YES
	4/26/12	2130			

ESC

L·A·B S·C·I·E·N·C·E·S

NON-CONFORMANCE FORM

Login No.: L572035

Date: 4/26/12

Evaluated by: RJV

Client: LEGRYAN

Non-Conformance (check applicable items)

- ☐ Parameter(s) past holding time
- ☐ Improper temperature
- ☐ Improper container type
- ☐ Improper preservation
- ☐ Container lid not intact
- ☐ Login Clarification Needed
- ☐ Chain of custody is incomplete
- ☐ Chain of Custody is missing (see below)
- ☐ Broken container(s) (See below)
- ☐ Broken container: sufficient sample volume remains for analysis requested (See below)

If no COC: Received by_____

Date:_____ Time:_____

Temp:____ Cont. Rec____ pH:____

☐ Fedex ☐ UPS ☐SWA ☐ Other____

Tracking #_____

- ☐ Insufficient packing material around container
- ☐ Insufficient packing material inside cooler
- ☐ Improper handling by carrier (FedEx / UPS / Courier
- ☐ Sample was frozen

Comments: Does client mean MS/MSD for MSD8? If so which sample does it apply to?

Login Instructions: **TSR Initials:** TAH

Client informed by call / email / fax / voice mail date: 4/26/12 time: 10:08

Client contact: Scott Rendall

Means MS, MSD

39G 24LF 90FT

Troy Dunlap

From: Alan Harvill
Sent: Wednesday, April 25, 2012 9:30 AM
To: Login (Login@esclabsciences.com); JD Gentry (JGentry@esclabsciences.com); Ken Buckley (KBuckley@esclabsciences.com)
Subject: LEERYAN Rush

Importance: High

Arriving today : 12-16 GW for V8260 log 3 day TAT due Monday 4/30
Arriving tomorrow: 12-16 GW for V8260, log 2 day TAT due Monday 4/30
Arriving Friday: 12-16 GW for V8260, log next day TAT due Monday 4/30

Rush approved by Eric Johnson.

Please advise.
Thanks,

Alan Harvill
Technical Service Representative
Phone: 615-773-9787
Toll Free: 1-800-767-5859 ext:9787
Email: aharvill@esclabsciences.com

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Lee & Ryan Environmental

1707 Melody Lane
Greenfield,IN 46140

Billing information:

Mr. Scott Randall
1707 Melody Lane

Greenfield,IN 46140

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

A052

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: Mr. Scott Randall

Email: srandall@leeandryan.com

Project Description: Navy EMAC Millington, TN

City/State Collected: Millington, TN

Phone: (800) 680-8987
FAX:

Client Project #:

Lab Project #: LEERYAN-EMAC

Collected by (print): Jon Hall

Site/Facility ID#: 11259

P.O.#: 11259

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
✓ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: LEERYAN (lab use only)
Template/Prelogin: T78146/ P389200
Cooler #: JB 4/5
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	VOC Screen 2ozClr-NoPres			Remarks/Contaminant	Sample # (lab only)
39 GLF 25 50ft	G	GW	50ft	4/23/12	1836	2			X						L571651-01
39 GLF 25 70ft	G	GW	70ft	4/23/12	1726	2			X						L571654-02
39 GLF 25 80ft	G	GW	80ft	4/23/12	1645	2			X						03
39 GLF 25 90ft	G	GW	90ft	4/23/12	1415	2			X						04
39 GLF 25 60ft	G	GW	60ft	4/23/12	1801	2			X						05
DUP 1	G	GW	—	4/23/12	—	2			X						06
trip blank	G	GW	—	4/23/12	—	1			X						07
		~~GW~~				~~2~~			~~X~~						
		~~GW~~				~~2~~			~~X~~						

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

6274 8784 3898

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: CJ (lab use only)
	4/24/12	1630			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4 Bottles Received: 13V	COC Seal Intact: ✓ Y ___ N ___ NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/25/12 Time: 0900	pH Checked: NCF:

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Mt. Juliet, TN 37122
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1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

Report Summary

Thursday May 03, 2012

Report Number: L572474
Samples Received: 04/28/12
Client Project: 11259

Description: Navy EMAC Millington, TN

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Alan Harvill

T. Alan Harvill , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-01

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 50 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 09:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	4.6	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-01

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 50 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 09:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	102.		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	113.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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.
Reported: 05/03/12 11:49 Printed: 05/03/12 15:07

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-02

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 60 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 10:26

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	4.6	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	1.5	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-02

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 60 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 10:26

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	2.0	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	99.5		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	111.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-03

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 70 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 11:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	5.1	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	2.7	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-03

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 70 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 11:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	4.2	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	108.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-04

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 80 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 11:56

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	4.9	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	3.1	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-04

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 80 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 11:56

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	5.0	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	102.		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	110.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-05

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 90 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 12:42

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	3.8	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	2.3	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-05

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 28LF 90 FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 12:42

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	3.6	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	99.9		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	110.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 05/03/12 11:49 Printed: 05/03/12 15:08

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-06

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : DUPLICATE 5

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	4.0	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	2.4	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-06

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : DUPLICATE 5

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	3.6	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	101.		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	112.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-07

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : TRIP BLANK

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/30/12	1
Acrolein	BDL	50.	ug/l	8260B	04/30/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/30/12	1
Benzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/30/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/30/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/30/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/30/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/30/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/30/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/30/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/30/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/30/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/30/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/30/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

May 03,2012

ESC Sample # : L572474-07

Date Received : April 28, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : TRIP BLANK

Project # : 11259

Collected By : John Hall
Collection Date : 04/27/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/30/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/30/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/30/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/30/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/30/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Styrene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Toluene	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/30/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/30/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/30/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/30/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/30/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/30/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/30/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/30/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/30/12	1
4-Bromofluorobenzene	111.		% Rec.	8260B	04/30/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572474

May 03, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG590179	04/30/12 14:05
1,1,1-Trichloroethane	< .001	mg/l			WG590179	04/30/12 14:05
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG590179	04/30/12 14:05
1,1,2-Trichloroethane	< .001	mg/l			WG590179	04/30/12 14:05
1,1-Dichloroethane	< .001	mg/l			WG590179	04/30/12 14:05
1,1-Dichloroethene	< .001	mg/l			WG590179	04/30/12 14:05
1,1-Dichloropropene	< .001	mg/l			WG590179	04/30/12 14:05
1,2,3-Trichlorobenzene	< .001	mg/l			WG590179	04/30/12 14:05
1,2,3-Trichloropropane	< .001	mg/l			WG590179	04/30/12 14:05
1,2,4-Trichlorobenzene	< .001	mg/l			WG590179	04/30/12 14:05
1,2,4-Trimethylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG590179	04/30/12 14:05
1,2-Dibromoethane	< .001	mg/l			WG590179	04/30/12 14:05
1,2-Dichlorobenzene	< .001	mg/l			WG590179	04/30/12 14:05
1,2-Dichloroethane	< .001	mg/l			WG590179	04/30/12 14:05
1,2-Dichloropropane	< .001	mg/l			WG590179	04/30/12 14:05
1,3,5-Trimethylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
1,3-Dichlorobenzene	< .001	mg/l			WG590179	04/30/12 14:05
1,3-Dichloropropane	< .001	mg/l			WG590179	04/30/12 14:05
1,4-Dichlorobenzene	< .001	mg/l			WG590179	04/30/12 14:05
2,2-Dichloropropane	< .001	mg/l			WG590179	04/30/12 14:05
2-Butanone (MEK)	< .01	mg/l			WG590179	04/30/12 14:05
2-Chloroethyl vinyl ether	< .05	mg/l			WG590179	04/30/12 14:05
2-Chlorotoluene	< .001	mg/l			WG590179	04/30/12 14:05
4-Chlorotoluene	< .001	mg/l			WG590179	04/30/12 14:05
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG590179	04/30/12 14:05
Acetone	< .05	mg/l			WG590179	04/30/12 14:05
Acrolein	< .025	mg/l			WG590179	04/30/12 14:05
Acrylonitrile	< .01	mg/l			WG590179	04/30/12 14:05
Benzene	< .001	mg/l			WG590179	04/30/12 14:05
Bromobenzene	< .001	mg/l			WG590179	04/30/12 14:05
Bromodichloromethane	< .001	mg/l			WG590179	04/30/12 14:05
Bromoform	< .001	mg/l			WG590179	04/30/12 14:05
Bromomethane	< .005	mg/l			WG590179	04/30/12 14:05
Carbon tetrachloride	< .001	mg/l			WG590179	04/30/12 14:05
Chlorobenzene	< .001	mg/l			WG590179	04/30/12 14:05
Chlorodibromomethane	< .001	mg/l			WG590179	04/30/12 14:05
Chloroethane	< .005	mg/l			WG590179	04/30/12 14:05
Chloroform	< .005	mg/l			WG590179	04/30/12 14:05
Chloromethane	< .0025	mg/l			WG590179	04/30/12 14:05
cis-1,2-Dichloroethene	< .001	mg/l			WG590179	04/30/12 14:05
cis-1,3-Dichloropropene	< .001	mg/l			WG590179	04/30/12 14:05
Di-isopropyl ether	< .001	mg/l			WG590179	04/30/12 14:05
Dibromomethane	< .001	mg/l			WG590179	04/30/12 14:05
Dichlorodifluoromethane	< .005	mg/l			WG590179	04/30/12 14:05
Ethylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
Hexachloro-1,3-butadiene	< .001	mg/l			WG590179	04/30/12 14:05
Isopropylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
Methyl tert-butyl ether	< .001	mg/l			WG590179	04/30/12 14:05
Methylene Chloride	< .005	mg/l			WG590179	04/30/12 14:05
n-Butylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
n-Propylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
Naphthalene	< .005	mg/l			WG590179	04/30/12 14:05
p-Isopropyltoluene	< .001	mg/l			WG590179	04/30/12 14:05
sec-Butylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
Styrene	< .001	mg/l			WG590179	04/30/12 14:05
tert-Butylbenzene	< .001	mg/l			WG590179	04/30/12 14:05
Tetrachloroethene	< .001	mg/l			WG590179	04/30/12 14:05
Toluene	< .005	mg/l			WG590179	04/30/12 14:05

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Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572474

May 03, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
trans-1,2-Dichloroethene	< .001	mg/l			WG590179	04/30/12 14:05
trans-1,3-Dichloropropene	< .001	mg/l			WG590179	04/30/12 14:05
Trichloroethene	< .001	mg/l			WG590179	04/30/12 14:05
Trichlorofluoromethane	< .005	mg/l			WG590179	04/30/12 14:05
Vinyl chloride	< .001	mg/l			WG590179	04/30/12 14:05
Xylenes, Total	< .003	mg/l			WG590179	04/30/12 14:05
4-Bromofluorobenzene		% Rec.	118.1	82-120	WG590179	04/30/12 14:05
Dibromofluoromethane		% Rec.	99.81	82-126	WG590179	04/30/12 14:05
Toluene-d8		% Rec.	103.3	92-112	WG590179	04/30/12 14:05

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0281	112.	77-128	WG590179
1,1,1-Trichloroethane	mg/l	.025	0.0271	108.	71-126	WG590179
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0267	107.	78-130	WG590179
1,1,2-Trichloroethane	mg/l	.025	0.0266	106.	81-121	WG590179
1,1-Dichloroethane	mg/l	.025	0.0270	108.	73-123	WG590179
1,1-Dichloroethene	mg/l	.025	0.0230	92.0	54-134	WG590179
1,1-Dichloropropene	mg/l	.025	0.0242	96.6	67-127	WG590179
1,2,3-Trichlorobenzene	mg/l	.025	0.0273	109.	77-130	WG590179
1,2,3-Trichloropropane	mg/l	.025	0.0259	104.	68-130	WG590179
1,2,4-Trichlorobenzene	mg/l	.025	0.0279	112.	76-127	WG590179
1,2,4-Trimethylbenzene	mg/l	.025	0.0272	109.	77-129	WG590179
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0260	104.	55-142	WG590179
1,2-Dibromoethane	mg/l	.025	0.0266	106.	78-124	WG590179
1,2-Dichlorobenzene	mg/l	.025	0.0264	106.	82-121	WG590179
1,2-Dichloroethane	mg/l	.025	0.0241	96.2	69-128	WG590179
1,2-Dichloropropane	mg/l	.025	0.0270	108.	77-121	WG590179
1,3,5-Trimethylbenzene	mg/l	.025	0.0270	108.	78-127	WG590179
1,3-Dichlorobenzene	mg/l	.025	0.0278	111.	77-127	WG590179
1,3-Dichloropropane	mg/l	.025	0.0259	104.	78-117	WG590179
1,4-Dichlorobenzene	mg/l	.025	0.0258	103.	79-117	WG590179
2,2-Dichloropropane	mg/l	.025	0.0257	103.	63-130	WG590179
2-Butanone (MEK)	mg/l	.125	0.148	118.	58-144	WG590179
2-Chloroethyl vinyl ether	mg/l	.125	0.126	101.	26-172	WG590179
2-Chlorotoluene	mg/l	.025	0.0252	101.	78-123	WG590179
4-Chlorotoluene	mg/l	.025	0.0265	106.	78-122	WG590179
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.123	98.3	58-147	WG590179
Acetone	mg/l	.125	0.190	152.	49-153	WG590179
Acrolein	mg/l	.125	0.116	92.9	10-181	WG590179
Acrylonitrile	mg/l	.125	0.142	114.	53-153	WG590179
Benzene	mg/l	.025	0.0259	104.	72-119	WG590179
Bromobenzene	mg/l	.025	0.0261	104.	76-121	WG590179
Bromodichloromethane	mg/l	.025	0.0254	102.	75-127	WG590179
Bromoform	mg/l	.025	0.0275	110.	61-136	WG590179
Bromomethane	mg/l	.025	0.0366	146.	42-172	WG590179
Carbon tetrachloride	mg/l	.025	0.0248	99.4	63-129	WG590179
Chlorobenzene	mg/l	.025	0.0270	108.	78-123	WG590179
Chlorodibromomethane	mg/l	.025	0.0270	108.	73-128	WG590179
Chloroethane	mg/l	.025	0.0260	104.	52-164	WG590179
Chloroform	mg/l	.025	0.0266	106.	76-122	WG590179
Chloromethane	mg/l	.025	0.0239	95.7	50-141	WG590179
cis-1,2-Dichloroethene	mg/l	.025	0.0264	106.	75-121	WG590179
cis-1,3-Dichloropropene	mg/l	.025	0.0268	107.	74-124	WG590179
Di-isopropyl ether	mg/l	.025	0.0276	110.	66-129	WG590179
Dibromomethane	mg/l	.025	0.0260	104.	77-124	WG590179
Dichlorodifluoromethane	mg/l	.025	0.0217	86.6	33-173	WG590179
Ethylbenzene	mg/l	.025	0.0264	106.	77-124	WG590179

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Quality Assurance Report
Level II

L572474

May 03, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Hexachloro-1,3-butadiene	mg/l	.025	0.0254	102.	71-134	WG590179
Isopropylbenzene	mg/l	.025	0.0280	112.	74-126	WG590179
Methyl tert-butyl ether	mg/l	.025	0.0286	114.	67-127	WG590179
Methylene Chloride	mg/l	.025	0.0243	97.2	67-122	WG590179
n-Butylbenzene	mg/l	.025	0.0245	98.1	74-130	WG590179
n-Propylbenzene	mg/l	.025	0.0259	104.	77-125	WG590179
Naphthalene	mg/l	.025	0.0266	106.	70-134	WG590179
p-Isopropyltoluene	mg/l	.025	0.0278	111.	77-132	WG590179
sec-Butylbenzene	mg/l	.025	0.0262	105.	77-130	WG590179
Styrene	mg/l	.025	0.0267	107.	69-145	WG590179
tert-Butylbenzene	mg/l	.025	0.0272	109.	76-131	WG590179
Tetrachloroethene	mg/l	.025	0.0259	104.	69-131	WG590179
Toluene	mg/l	.025	0.0252	101.	75-114	WG590179
trans-1,2-Dichloroethene	mg/l	.025	0.0247	98.8	63-127	WG590179
trans-1,3-Dichloropropene	mg/l	.025	0.0248	99.3	69-124	WG590179
Trichloroethene	mg/l	.025	0.0254	101.	69-131	WG590179
Trichlorofluoromethane	mg/l	.025	0.0260	104.	53-161	WG590179
Vinyl chloride	mg/l	.025	0.0247	98.9	55-142	WG590179
Xylenes, Total	mg/l	.075	0.0796	106.	77-123	WG590179
4-Bromofluorobenzene				108.9	82-120	WG590179
Dibromofluoromethane				99.52	82-126	WG590179
Toluene-d8				103.6	92-112	WG590179

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0290	0.0281	116.	77-128	3.28	20	WG590179
1,1,1-Trichloroethane	mg/l	0.0288	0.0271	115.	71-126	6.24	20	WG590179
1,1,2,2-Tetrachloroethane	mg/l	0.0271	0.0267	108.	78-130	1.38	20	WG590179
1,1,2-Trichloroethane	mg/l	0.0274	0.0266	110.	81-121	3.05	20	WG590179
1,1-Dichloroethane	mg/l	0.0273	0.0270	109.	73-123	1.34	20	WG590179
1,1-Dichloroethene	mg/l	0.0232	0.0230	93.0	54-134	0.790	20	WG590179
1,1-Dichloropropene	mg/l	0.0251	0.0242	100.	67-127	3.72	20	WG590179
1,2,3-Trichlorobenzene	mg/l	0.0271	0.0273	108.	77-130	0.990	20	WG590179
1,2,3-Trichloropropane	mg/l	0.0273	0.0259	109.	68-130	5.27	20	WG590179
1,2,4-Trichlorobenzene	mg/l	0.0277	0.0279	111.	76-127	0.840	20	WG590179
1,2,4-Trimethylbenzene	mg/l	0.0287	0.0272	115.	77-129	5.37	20	WG590179
1,2-Dibromo-3-Chloropropane	mg/l	0.0253	0.0260	101.	55-142	2.82	20	WG590179
1,2-Dibromoethane	mg/l	0.0265	0.0266	106.	78-124	0.420	20	WG590179
1,2-Dichlorobenzene	mg/l	0.0263	0.0264	105.	82-121	0.270	20	WG590179
1,2-Dichloroethane	mg/l	0.0241	0.0241	96.0	69-128	0.280	20	WG590179
1,2-Dichloropropane	mg/l	0.0275	0.0270	110.	77-121	1.67	20	WG590179
1,3,5-Trimethylbenzene	mg/l	0.0284	0.0270	114.	78-127	5.06	20	WG590179
1,3-Dichlorobenzene	mg/l	0.0295	0.0278	118.	77-127	5.90	20	WG590179
1,3-Dichloropropane	mg/l	0.0266	0.0259	106.	78-117	2.43	20	WG590179
1,4-Dichlorobenzene	mg/l	0.0257	0.0258	103.	79-117	0.510	20	WG590179
2,2-Dichloropropane	mg/l	0.0296	0.0257	118.	63-130	14.3	20	WG590179
2-Butanone (MEK)	mg/l	0.147	0.148	118.	58-144	0.710	20	WG590179
2-Chloroethyl vinyl ether	mg/l	0.125	0.126	100.	26-172	0.960	22	WG590179
2-Chlorotoluene	mg/l	0.0271	0.0252	108.	78-123	7.23	20	WG590179
4-Chlorotoluene	mg/l	0.0278	0.0265	111.	78-122	4.78	20	WG590179
4-Methyl-2-pentanone (MIBK)	mg/l	0.124	0.123	99.0	58-147	0.670	20	WG590179
Acetone	mg/l	0.188	0.190	151.	49-153	0.720	21	WG590179
Acrolein	mg/l	0.113	0.116	90.0	10-181	2.59	30	WG590179
Acrylonitrile	mg/l	0.140	0.142	112.	53-153	1.30	20	WG590179
Benzene	mg/l	0.0263	0.0259	105.	72-119	1.57	20	WG590179
Bromobenzene	mg/l	0.0271	0.0261	108.	76-121	3.96	20	WG590179
Bromodichloromethane	mg/l	0.0252	0.0254	101.	75-127	0.750	20	WG590179
Bromoform	mg/l	0.0278	0.0275	111.	61-136	1.02	20	WG590179

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Quality Assurance Report
Level II

L572474

May 03, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Bromomethane	mg/l	0.0358	0.0366	143.	42-172	2.14	20	WG590179
Carbon tetrachloride	mg/l	0.0264	0.0248	106.	63-129	6.08	20	WG590179
Chlorobenzene	mg/l	0.0277	0.0270	111.	78-123	2.56	20	WG590179
Chlorodibromomethane	mg/l	0.0275	0.0270	110.	73-128	1.83	20	WG590179
Chloroethane	mg/l	0.0267	0.0260	107.	52-164	2.70	20	WG590179
Chloroform	mg/l	0.0271	0.0266	108.	76-122	1.80	20	WG590179
Chloromethane	mg/l	0.0248	0.0239	99.0	50-141	3.45	20	WG590179
cis-1,2-Dichloroethene	mg/l	0.0267	0.0264	107.	75-121	1.22	20	WG590179
cis-1,3-Dichloropropene	mg/l	0.0266	0.0268	106.	74-124	0.760	20	WG590179
Di-isopropyl ether	mg/l	0.0276	0.0276	110.	66-129	0.0700	20	WG590179
Dibromomethane	mg/l	0.0257	0.0260	103.	77-124	1.28	20	WG590179
Dichlorodifluoromethane	mg/l	0.0231	0.0217	92.0	33-173	6.45	20	WG590179
Ethylbenzene	mg/l	0.0273	0.0264	109.	77-124	3.52	20	WG590179
Hexachloro-1,3-butadiene	mg/l	0.0264	0.0254	105.	71-134	3.52	20	WG590179
Isopropylbenzene	mg/l	0.0297	0.0280	119.	74-126	6.10	20	WG590179
Methyl tert-butyl ether	mg/l	0.0284	0.0286	113.	67-127	0.860	20	WG590179
Methylene Chloride	mg/l	0.0240	0.0243	96.0	67-122	1.31	20	WG590179
n-Butylbenzene	mg/l	0.0254	0.0245	101.	74-130	3.33	20	WG590179
n-Propylbenzene	mg/l	0.0282	0.0259	113.	77-125	8.39	20	WG590179
Naphthalene	mg/l	0.0258	0.0266	103.	70-134	2.96	20	WG590179
p-Isopropyltoluene	mg/l	0.0298	0.0278	119.	77-132	7.04	20	WG590179
sec-Butylbenzene	mg/l	0.0281	0.0262	112.	77-130	7.01	20	WG590179
Styrene	mg/l	0.0279	0.0267	111.	69-145	4.28	20	WG590179
tert-Butylbenzene	mg/l	0.0289	0.0272	116.	76-131	6.15	20	WG590179
Tetrachloroethene	mg/l	0.0279	0.0259	112.	69-131	7.55	20	WG590179
Toluene	mg/l	0.0255	0.0252	102.	75-114	1.14	20	WG590179
trans-1,2-Dichloroethene	mg/l	0.0262	0.0247	105.	63-127	6.04	20	WG590179
trans-1,3-Dichloropropene	mg/l	0.0246	0.0248	98.0	69-124	0.910	20	WG590179
Trichloroethene	mg/l	0.0258	0.0254	103.	69-131	1.70	20	WG590179
Trichlorofluoromethane	mg/l	0.0271	0.0260	108.	53-161	4.09	20	WG590179
Vinyl chloride	mg/l	0.0252	0.0247	101.	55-142	1.81	20	WG590179
Xylenes, Total	mg/l	0.0836	0.0796	111.	77-123	4.89	20	WG590179
4-Bromofluorobenzene				113.0	82-120			WG590179
Dibromofluoromethane				99.09	82-126			WG590179
Toluene-d8				103.0	92-112			WG590179

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0288	0	.025	115.	71-130	L572466-01	WG590179
1,1,1-Trichloroethane	mg/l	0.0297	0	.025	119.	58-137	L572466-01	WG590179
1,1,2,2-Tetrachloroethane	mg/l	0.0282	0	.025	113.	64-149	L572466-01	WG590179
1,1,2-Trichloroethane	mg/l	0.0278	0	.025	111.	73-128	L572466-01	WG590179
1,1-Dichloroethane	mg/l	0.0281	0	.025	112.	58-133	L572466-01	WG590179
1,1-Dichloroethene	mg/l	0.0255	0	.025	102.	32-152	L572466-01	WG590179
1,1-Dichloropropene	mg/l	0.0275	0	.025	110.	50-140	L572466-01	WG590179
1,2,3-Trichlorobenzene	mg/l	0.0280	0	.025	112.	68-135	L572466-01	WG590179
1,2,3-Trichloropropane	mg/l	0.0279	0	.025	112.	74-137	L572466-01	WG590179
1,2,4-Trichlorobenzene	mg/l	0.0291	0	.025	116.	67-133	L572466-01	WG590179
1,2,4-Trimethylbenzene	mg/l	0.0288	0	.025	115.	62-141	L572466-01	WG590179
1,2-Dibromo-3-Chloropropane	mg/l	0.0283	0	.025	113.	55-148	L572466-01	WG590179
1,2-Dibromoethane	mg/l	0.0280	0	.025	112.	71-129	L572466-01	WG590179
1,2-Dichlorobenzene	mg/l	0.0270	0	.025	108.	75-125	L572466-01	WG590179
1,2-Dichloroethane	mg/l	0.0255	0	.025	102.	59-135	L572466-01	WG590179
1,2-Dichloropropane	mg/l	0.0273	0	.025	109.	68-126	L572466-01	WG590179
1,3,5-Trimethylbenzene	mg/l	0.0285	0	.025	114.	67-136	L572466-01	WG590179
1,3-Dichlorobenzene	mg/l	0.0289	0	.025	116.	69-131	L572466-01	WG590179
1,3-Dichloropropane	mg/l	0.0273	0	.025	109.	70-122	L572466-01	WG590179
1,4-Dichlorobenzene	mg/l	0.0266	0	.025	106.	70-123	L572466-01	WG590179

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L572474

May 03, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
2,2-Dichloropropane	mg/l	0.0292	0	.025	117.	51-141	L572466-01	WG590179
2-Butanone (MEK)	mg/l	0.140	0	.125	112.	51-149	L572466-01	WG590179
2-Chloroethyl vinyl ether	mg/l	0.000738	0	.125	0.590*	10-161	L572466-01	WG590179
2-Chlorotoluene	mg/l	0.0268	0	.025	107.	65-133	L572466-01	WG590179
4-Chlorotoluene	mg/l	0.0278	0	.025	111.	67-129	L572466-01	WG590179
4-Methyl-2-pentanone (MIBK)	mg/l	0.133	0	.125	106.	53-154	L572466-01	WG590179
Acetone	mg/l	0.156	0.0250	.125	105.	34-146	L572466-01	WG590179
Acrolein	mg/l	0.132	0	.125	105.	10-189	L572466-01	WG590179
Acrylonitrile	mg/l	0.153	0	.125	122.	49-162	L572466-01	WG590179
Benzene	mg/l	0.0280	0	.025	112.	51-134	L572466-01	WG590179
Bromobenzene	mg/l	0.0270	0	.025	108.	64-130	L572466-01	WG590179
Bromodichloromethane	mg/l	0.0257	0	.025	103.	67-132	L572466-01	WG590179
Bromoform	mg/l	0.0286	0	.025	114.	59-137	L572466-01	WG590179
Bromomethane	mg/l	0.0384	0	.025	154.	23-177	L572466-01	WG590179
Carbon tetrachloride	mg/l	0.0274	0	.025	110.	49-140	L572466-01	WG590179
Chlorobenzene	mg/l	0.0278	0	.025	111.	69-126	L572466-01	WG590179
Chlorodibromomethane	mg/l	0.0275	0	.025	110.	68-130	L572466-01	WG590179
Chloroethane	mg/l	0.0287	0	.025	115.	32-177	L572466-01	WG590179
Chloroform	mg/l	0.0273	0	.025	109.	64-130	L572466-01	WG590179
Chloromethane	mg/l	0.0304	0	.025	121.	27-155	L572466-01	WG590179
cis-1,2-Dichloroethene	mg/l	0.0278	0	.025	111.	54-137	L572466-01	WG590179
cis-1,3-Dichloropropene	mg/l	0.0278	0	.025	111.	63-127	L572466-01	WG590179
Di-isopropyl ether	mg/l	0.0283	0	.025	113.	58-133	L572466-01	WG590179
Dibromomethane	mg/l	0.0274	0	.025	110.	68-131	L572466-01	WG590179
Dichlorodifluoromethane	mg/l	0.0272	0	.025	109.	16-188	L572466-01	WG590179
Ethylbenzene	mg/l	0.0275	0	.025	110.	64-135	L572466-01	WG590179
Hexachloro-1,3-butadiene	mg/l	0.0266	0	.025	106.	64-140	L572466-01	WG590179
Isopropylbenzene	mg/l	0.0293	0	.025	117.	62-134	L572466-01	WG590179
Methyl tert-butyl ether	mg/l	0.0302	0	.025	121.	55-136	L572466-01	WG590179
Methylene Chloride	mg/l	0.0261	0	.025	104.	52-130	L572466-01	WG590179
n-Butylbenzene	mg/l	0.0258	0	.025	103.	62-142	L572466-01	WG590179
n-Propylbenzene	mg/l	0.0279	0	.025	112.	62-137	L572466-01	WG590179
Naphthalene	mg/l	0.0277	0	.025	111.	65-140	L572466-01	WG590179
p-Isopropyltoluene	mg/l	0.0295	0	.025	118.	64-142	L572466-01	WG590179
sec-Butylbenzene	mg/l	0.0278	0	.025	111.	67-139	L572466-01	WG590179
Styrene	mg/l	0.0279	0	.025	111.	58-152	L572466-01	WG590179
tert-Butylbenzene	mg/l	0.0286	0	.025	114.	66-139	L572466-01	WG590179
Tetrachloroethene	mg/l	0.0282	0	.025	113.	56-139	L572466-01	WG590179
Toluene	mg/l	0.0267	0	.025	107.	61-126	L572466-01	WG590179
trans-1,2-Dichloroethene	mg/l	0.0286	0	.025	114.	45-137	L572466-01	WG590179
trans-1,3-Dichloropropene	mg/l	0.0260	0	.025	104.	59-130	L572466-01	WG590179
Trichloroethene	mg/l	0.0266	0	.025	106.	40-155	L572466-01	WG590179
Trichlorofluoromethane	mg/l	0.0286	0	.025	114.	35-177	L572466-01	WG590179
Vinyl chloride	mg/l	0.0291	0	.025	116.	32-159	L572466-01	WG590179
Xylenes, Total	mg/l	0.0844	0	.075	112.	64-133	L572466-01	WG590179
4-Bromofluorobenzene					110.7	82-120		WG590179
Dibromofluoromethane					100.7	82-126		WG590179
Toluene-d8					103.4	92-112		WG590179

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0321	0.0288	128.	71-130	10.9	20	L572466-01	WG590179
1,1,1-Trichloroethane	mg/l	0.0346	0.0297	138.*	58-137	15.4	20	L572466-01	WG590179
1,1,2,2-Tetrachloroethane	mg/l	0.0312	0.0282	125.	64-149	9.82	20	L572466-01	WG590179
1,1,2-Trichloroethane	mg/l	0.0303	0.0278	121.	73-128	8.40	20	L572466-01	WG590179
1,1-Dichloroethane	mg/l	0.0319	0.0281	128.	58-133	12.8	20	L572466-01	WG590179
1,1-Dichloroethene	mg/l	0.0284	0.0255	113.	32-152	10.6	20	L572466-01	WG590179
1,1-Dichloropropene	mg/l	0.0316	0.0275	126.	50-140	13.8	20	L572466-01	WG590179

* Performance of this Analyte is outside of established criteria.
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Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572474

May 03, 2012

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,2,3-Trichlorobenzene	mg/l	0.0305	0.0280	122.	68-135	8.66	20	L572466-01	WG590179
1,2,3-Trichloropropane	mg/l	0.0302	0.0279	121.	74-137	7.99	20	L572466-01	WG590179
1,2,4-Trichlorobenzene	mg/l	0.0314	0.0291	126.	67-133	7.55	20	L572466-01	WG590179
1,2,4-Trimethylbenzene	mg/l	0.0322	0.0288	129.	62-141	11.0	20	L572466-01	WG590179
1,2-Dibromo-3-Chloropropane	mg/l	0.0295	0.0283	118.	55-148	4.29	22	L572466-01	WG590179
1,2-Dibromoethane	mg/l	0.0306	0.0280	122.	71-129	8.88	20	L572466-01	WG590179
1,2-Dichlorobenzene	mg/l	0.0293	0.0270	117.	75-125	8.36	20	L572466-01	WG590179
1,2-Dichloroethane	mg/l	0.0282	0.0255	113.	59-135	10.2	20	L572466-01	WG590179
1,2-Dichloropropane	mg/l	0.0310	0.0273	124.	68-126	12.6	20	L572466-01	WG590179
1,3,5-Trimethylbenzene	mg/l	0.0320	0.0285	128.	67-136	11.4	20	L572466-01	WG590179
1,3-Dichlorobenzene	mg/l	0.0327	0.0289	131.	69-131	12.2	20	L572466-01	WG590179
1,3-Dichloropropane	mg/l	0.0297	0.0273	119.	70-122	8.32	20	L572466-01	WG590179
1,4-Dichlorobenzene	mg/l	0.0291	0.0266	116.	70-123	9.16	20	L572466-01	WG590179
2,2-Dichloropropane	mg/l	0.0343	0.0292	137.	51-141	16.0	20	L572466-01	WG590179
2-Butanone (MEK)	mg/l	0.153	0.140	122.	51-149	8.94	22	L572466-01	WG590179
2-Chloroethyl vinyl ether	mg/l	0.000882	0.000738	0.706*	10-161	17.8	40	L572466-01	WG590179
2-Chlorotoluene	mg/l	0.0302	0.0268	121.	65-133	11.6	20	L572466-01	WG590179
4-Chlorotoluene	mg/l	0.0311	0.0278	124.	67-129	11.5	20	L572466-01	WG590179
4-Methyl-2-pentanone (MIBK)	mg/l	0.143	0.133	115.	53-154	7.61	21	L572466-01	WG590179
Acetone	mg/l	0.165	0.156	112.	34-146	5.61	22	L572466-01	WG590179
Acrolein	mg/l	0.138	0.132	110.	10-189	4.69	30	L572466-01	WG590179
Acrylonitrile	mg/l	0.163	0.153	131.	49-162	6.84	20	L572466-01	WG590179
Benzene	mg/l	0.0314	0.0280	126.	51-134	11.5	20	L572466-01	WG590179
Bromobenzene	mg/l	0.0299	0.0270	120.	64-130	10.1	20	L572466-01	WG590179
Bromodichloromethane	mg/l	0.0287	0.0257	115.	67-132	11.2	20	L572466-01	WG590179
Bromoform	mg/l	0.0310	0.0286	124.	59-137	8.09	20	L572466-01	WG590179
Bromomethane	mg/l	0.0425	0.0384	170.	23-177	10.2	21	L572466-01	WG590179
Carbon tetrachloride	mg/l	0.0312	0.0274	125.	49-140	12.8	20	L572466-01	WG590179
Chlorobenzene	mg/l	0.0307	0.0278	123.	69-126	9.97	20	L572466-01	WG590179
Chlorodibromomethane	mg/l	0.0305	0.0275	122.	68-130	10.4	20	L572466-01	WG590179
Chloroethane	mg/l	0.0319	0.0287	127.	32-177	10.6	21	L572466-01	WG590179
Chloroform	mg/l	0.0307	0.0273	123.	64-130	11.8	20	L572466-01	WG590179
Chloromethane	mg/l	0.0332	0.0304	133.	27-155	9.08	20	L572466-01	WG590179
cis-1,2-Dichloroethene	mg/l	0.0309	0.0278	124.	54-137	10.6	20	L572466-01	WG590179
cis-1,3-Dichloropropene	mg/l	0.0307	0.0278	123.	63-127	10.0	20	L572466-01	WG590179
Di-isopropyl ether	mg/l	0.0313	0.0283	125.	58-133	10.1	20	L572466-01	WG590179
Dibromomethane	mg/l	0.0300	0.0274	120.	68-131	9.11	20	L572466-01	WG590179
Dichlorodifluoromethane	mg/l	0.0313	0.0272	125.	16-188	14.1	22	L572466-01	WG590179
Ethylbenzene	mg/l	0.0308	0.0275	123.	64-135	11.5	20	L572466-01	WG590179
Hexachloro-1,3-butadiene	mg/l	0.0294	0.0266	118.	64-140	9.93	20	L572466-01	WG590179
Isopropylbenzene	mg/l	0.0332	0.0293	133.	62-134	12.6	20	L572466-01	WG590179
Methyl tert-butyl ether	mg/l	0.0320	0.0302	128.	55-136	5.75	20	L572466-01	WG590179
Methylene Chloride	mg/l	0.0312	0.0261	125.	52-130	17.7	20	L572466-01	WG590179
n-Butylbenzene	mg/l	0.0287	0.0258	115.	62-142	10.5	20	L572466-01	WG590179
n-Propylbenzene	mg/l	0.0315	0.0279	126.	62-137	12.2	20	L572466-01	WG590179
Naphthalene	mg/l	0.0296	0.0277	118.	65-140	6.71	20	L572466-01	WG590179
p-Isopropyltoluene	mg/l	0.0334	0.0295	134.	64-142	12.2	20	L572466-01	WG590179
sec-Butylbenzene	mg/l	0.0317	0.0278	127.	67-139	13.1	20	L572466-01	WG590179
Styrene	mg/l	0.0308	0.0279	123.	58-152	10.1	20	L572466-01	WG590179
tert-Butylbenzene	mg/l	0.0319	0.0286	128.	66-139	10.8	20	L572466-01	WG590179
Tetrachloroethene	mg/l	0.0317	0.0282	127.	56-139	11.8	20	L572466-01	WG590179
Toluene	mg/l	0.0295	0.0267	118.	61-126	9.88	20	L572466-01	WG590179
trans-1,2-Dichloroethene	mg/l	0.0324	0.0286	129.	45-137	12.3	20	L572466-01	WG590179
trans-1,3-Dichloropropene	mg/l	0.0286	0.0260	114.	59-130	9.52	20	L572466-01	WG590179
Trichloroethene	mg/l	0.0304	0.0266	122.	40-155	13.5	20	L572466-01	WG590179
Trichlorofluoromethane	mg/l	0.0322	0.0286	129.	35-177	12.0	23	L572466-01	WG590179
Vinyl chloride	mg/l	0.0325	0.0291	130.	32-159	11.2	21	L572466-01	WG590179
Xylenes, Total	mg/l	0.0949	0.0844	126.	64-133	11.7	20	L572466-01	WG590179
4-Bromofluorobenzene				112.5	82-120				WG590179

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572474

May 03, 2012

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Dibromofluoromethane				102.1	82-126				
Toluene-d8				103.6	92-112				

Batch number /Run number / Sample number cross reference

WG590179: R2151635: L572474-01 02 03 04 05 06 07

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report
Level II

L572474

May 03, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

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Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

Report Summary

Monday April 30, 2012

Report Number: L572138
Samples Received: 04/27/12
Client Project: 11259

Description: Navy EMAC Millington, TN

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Alan Harvill

T. Alan Harvill , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-01

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 16:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	29.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	13.	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-01

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 16:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	24.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	97.3		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	111.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	97.3		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-02

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : DUP 3

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	28.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	13.	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-02

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : DUP 3

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	24.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	102.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-03

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 17:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	6.4	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-03

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 17:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	1.9	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	1.4	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	100.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-04

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 17:42

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	29.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	11.	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-04

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 17:42

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	21.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.7		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	95.5		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-05

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 18:11

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	6.4	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	2.0	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-05

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 18:11

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	1.1	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	2.2	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	105.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	98.9		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-06

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 18:32

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	16.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	6.4	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-06

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 18:32

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	14.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	105.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-07

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 18:51

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	8.1	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	2.4	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-07

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 18:51

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	1.0	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	2.1	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	99.6		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-08

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 19:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	13.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	4.7	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-08

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 30 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 19:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	11.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	107.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	104.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-09

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 09:27

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	820	10.	ug/l	8260B	04/29/12	10
trans-1,2-Dichloroethene	4.0	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-09

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 09:27

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	8.4	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	105.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-10

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 10:02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	92.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-10

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 10:02

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	42.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	5.2	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.5		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 04/30/12 10:04 Printed: 04/30/12 10:05

12065 Lebanon Rd.
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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-11

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 10:37

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	830	10.	ug/l	8260B	04/29/12	10
trans-1,2-Dichloroethene	4.3	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-11

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 10:37

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	17.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	1.1	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.6		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	106.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	102.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-12

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 11:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	120	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-12

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 11:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	32.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	7.8	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.7		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	104.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	95.1		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-13

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 11:47

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	840	10.	ug/l	8260B	04/29/12	10
trans-1,2-Dichloroethene	4.2	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-13

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 11:47

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	15.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	1.0	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	106.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	105.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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12065 Lebanon Rd.
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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-14

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 12:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	120	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-14

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 12:16

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	25.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	8.9	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.4		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	107.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	95.1		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-15

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 12:49

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	820	10.	ug/l	8260B	04/29/12	10
trans-1,2-Dichloroethene	4.0	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-15

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 26 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 12:49

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	18.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	1.2	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	103.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	105.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-16

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 13:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	110	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-16

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 13:43

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	20.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	8.4	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	98.4		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	107.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-17

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 14:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	97.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-17

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 27 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 14:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	18.	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	6.9	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.9		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	101.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	106.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-18

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 19:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	10.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	3.1	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-18

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 19:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	1.1	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	2.8	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	104.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	108.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-19

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : DUP 4

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/29/12	1
Acrolein	BDL	50.	ug/l	8260B	04/29/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/29/12	1
Benzene	BDL	1.0	ug/l	8260B	04/29/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/29/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/29/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/29/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/29/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/29/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/29/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/29/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/29/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/29/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/29/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/29/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/29/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/29/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/29/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/29/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/29/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/29/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/29/12	1
cis-1,2-Dichloroethene	8.6	1.0	ug/l	8260B	04/29/12	1
trans-1,2-Dichloroethene	2.8	1.0	ug/l	8260B	04/29/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/29/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/29/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/29/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/29/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/29/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/29/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/29/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/29/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/29/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-19

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : DUP 4

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/29/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/29/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/29/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/29/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/29/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Styrene	BDL	1.0	ug/l	8260B	04/29/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/29/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/29/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/29/12	1
Toluene	BDL	5.0	ug/l	8260B	04/29/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/29/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/29/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/29/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/29/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/29/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/29/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/29/12	1
Vinyl chloride	2.0	1.0	ug/l	8260B	04/29/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/29/12	1
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/29/12	1
Dibromofluoromethane	97.9		% Rec.	8260B	04/29/12	1
4-Bromofluorobenzene	110.		% Rec.	8260B	04/29/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30, 2012

ESC Sample # : L572138-20

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 20:04

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	5.1	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	1.9	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30, 2012

ESC Sample # : L572138-20

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 20:04

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	1.0	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	106.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	104.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30, 2012

ESC Sample # : L572138-21

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 90FT - MS

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 20:04

Parameter	Result	Det. Limit	Units	Method	Date	Dil.

Volatile Organics Matrix Spike
See QC Report for % Rec. and RPD

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-22

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : 39 G 29 LF 90FT - MSD

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 20:04

Parameter	Result	Det. Limit	Units	Method	Date	Dil.

Volatile Organics MSD
See QC Report for % Rec and RPD

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 04/30/12 10:04 Printed: 04/30/12 10:05

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-23

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : TRIP BLANK

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
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Greenfield, IN 46140

April 30,2012

ESC Sample # : L572138-23

Date Received : April 27, 2012
Description : Navy EMAC Millington, TN

Site ID :

Sample ID : TRIP BLANK

Project # : 11259

Collected By : John Hall
Collection Date : 04/26/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	102.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	94.9		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L572138-01	WG589962	SAMP	Acetone	R2147794	J4
L572138-02	WG589962	SAMP	Acetone	R2147794	J4
L572138-03	WG589962	SAMP	Acetone	R2147794	J4
L572138-04	WG589962	SAMP	Acetone	R2147794	J4
L572138-05	WG589962	SAMP	Acetone	R2147794	J4
L572138-06	WG589962	SAMP	Acetone	R2147794	J4
L572138-07	WG589962	SAMP	Acetone	R2147794	J4
L572138-08	WG589962	SAMP	Acetone	R2147794	J4
L572138-09	WG589962	SAMP	Acetone	R2147794	J4
L572138-10	WG589962	SAMP	Acetone	R2147794	J4
L572138-11	WG589962	SAMP	Acetone	R2147794	J4
L572138-12	WG589962	SAMP	Acetone	R2147794	J4
L572138-13	WG589962	SAMP	Acetone	R2147794	J4
L572138-14	WG589962	SAMP	Acetone	R2147794	J4
L572138-15	WG589962	SAMP	Acetone	R2147794	J4
L572138-16	WG589962	SAMP	Acetone	R2147794	J4
L572138-17	WG589962	SAMP	Acetone	R2147794	J4
L572138-18	WG589962	SAMP	Acetone	R2147794	J4
L572138-20	WG589962	SAMP	Acetone	R2147794	J4
	WG589962	SAMP	2-Chloroethyl vinyl ether	R2147794	J6J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
04/30/12 at 10:05:18

TSR Signing Reports: 364
R2 - Rush: Next Day

Sample: L572138-01 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-02 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-03 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-04 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-05 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-06 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-07 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-08 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-09 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-10 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-11 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-12 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-13 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-14 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-15 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-16 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-17 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-18 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-19 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-20 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04
MS/MSD
Sample: L572138-21 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-22 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

Sample: L572138-23 Account: LEERYAN Received: 04/27/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 10:04

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Quality Assurance Report
Level II

L572138

April 30, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589962	04/27/12 12:56
1,1,1-Trichloroethane	< .001	mg/l			WG589962	04/27/12 12:56
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589962	04/27/12 12:56
1,1,2-Trichloroethane	< .001	mg/l			WG589962	04/27/12 12:56
1,1-Dichloroethane	< .001	mg/l			WG589962	04/27/12 12:56
1,1-Dichloroethene	< .001	mg/l			WG589962	04/27/12 12:56
1,1-Dichloropropene	< .001	mg/l			WG589962	04/27/12 12:56
1,2,3-Trichlorobenzene	< .001	mg/l			WG589962	04/27/12 12:56
1,2,3-Trichloropropane	< .001	mg/l			WG589962	04/27/12 12:56
1,2,4-Trichlorobenzene	< .001	mg/l			WG589962	04/27/12 12:56
1,2,4-Trimethylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589962	04/27/12 12:56
1,2-Dibromoethane	< .001	mg/l			WG589962	04/27/12 12:56
1,2-Dichlorobenzene	< .001	mg/l			WG589962	04/27/12 12:56
1,2-Dichloroethane	< .001	mg/l			WG589962	04/27/12 12:56
1,2-Dichloropropane	< .001	mg/l			WG589962	04/27/12 12:56
1,3,5-Trimethylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
1,3-Dichlorobenzene	< .001	mg/l			WG589962	04/27/12 12:56
1,3-Dichloropropane	< .001	mg/l			WG589962	04/27/12 12:56
1,4-Dichlorobenzene	< .001	mg/l			WG589962	04/27/12 12:56
2,2-Dichloropropane	< .001	mg/l			WG589962	04/27/12 12:56
2-Butanone (MEK)	< .01	mg/l			WG589962	04/27/12 12:56
2-Chloroethyl vinyl ether	< .05	mg/l			WG589962	04/27/12 12:56
2-Chlorotoluene	< .001	mg/l			WG589962	04/27/12 12:56
4-Chlorotoluene	< .001	mg/l			WG589962	04/27/12 12:56
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589962	04/27/12 12:56
Acetone	< .05	mg/l			WG589962	04/27/12 12:56
Acrolein	< .025	mg/l			WG589962	04/27/12 12:56
Acrylonitrile	< .01	mg/l			WG589962	04/27/12 12:56
Benzene	< .001	mg/l			WG589962	04/27/12 12:56
Bromobenzene	< .001	mg/l			WG589962	04/27/12 12:56
Bromodichloromethane	< .001	mg/l			WG589962	04/27/12 12:56
Bromoform	< .001	mg/l			WG589962	04/27/12 12:56
Bromomethane	< .005	mg/l			WG589962	04/27/12 12:56
Carbon tetrachloride	< .001	mg/l			WG589962	04/27/12 12:56
Chlorobenzene	< .001	mg/l			WG589962	04/27/12 12:56
Chlorodibromomethane	< .001	mg/l			WG589962	04/27/12 12:56
Chloroethane	< .005	mg/l			WG589962	04/27/12 12:56
Chloroform	< .005	mg/l			WG589962	04/27/12 12:56
Chloromethane	< .0025	mg/l			WG589962	04/27/12 12:56
cis-1,2-Dichloroethene	< .001	mg/l			WG589962	04/27/12 12:56
cis-1,3-Dichloropropene	< .001	mg/l			WG589962	04/27/12 12:56
Di-isopropyl ether	< .001	mg/l			WG589962	04/27/12 12:56
Dibromomethane	< .001	mg/l			WG589962	04/27/12 12:56
Dichlorodifluoromethane	< .005	mg/l			WG589962	04/27/12 12:56
Ethylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
Hexachloro-1,3-butadiene	< .001	mg/l			WG589962	04/27/12 12:56
Isopropylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
Methyl tert-butyl ether	< .001	mg/l			WG589962	04/27/12 12:56
Methylene Chloride	< .005	mg/l			WG589962	04/27/12 12:56
n-Butylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
n-Propylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
Naphthalene	< .005	mg/l			WG589962	04/27/12 12:56
p-Isopropyltoluene	< .001	mg/l			WG589962	04/27/12 12:56
sec-Butylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
Styrene	< .001	mg/l			WG589962	04/27/12 12:56
tert-Butylbenzene	< .001	mg/l			WG589962	04/27/12 12:56
Tetrachloroethene	< .001	mg/l			WG589962	04/27/12 12:56
Toluene	< .005	mg/l			WG589962	04/27/12 12:56

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Quality Assurance Report
Level II

L572138

April 30, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
trans-1,2-Dichloroethene	< .001	mg/l			WG589962	04/27/12 12:56
trans-1,3-Dichloropropene	< .001	mg/l			WG589962	04/27/12 12:56
Trichloroethene	< .001	mg/l			WG589962	04/27/12 12:56
Trichlorofluoromethane	< .005	mg/l			WG589962	04/27/12 12:56
Vinyl chloride	< .001	mg/l			WG589962	04/27/12 12:56
Xylenes, Total	< .003	mg/l			WG589962	04/27/12 12:56
4-Bromofluorobenzene		% Rec.	106.4	82-120	WG589962	04/27/12 12:56
Dibromofluoromethane		% Rec.	101.0	82-126	WG589962	04/27/12 12:56
Toluene-d8		% Rec.	102.3	92-112	WG589962	04/27/12 12:56
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1,1-Trichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1,2-Trichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1-Dichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1-Dichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
1,1-Dichloropropene	< .001	mg/l			WG589989	04/27/12 13:56
1,2,3-Trichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2,3-Trichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
1,2,4-Trichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2,4-Trimethylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589989	04/27/12 13:56
1,2-Dibromoethane	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
1,3,5-Trimethylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,3-Dichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,3-Dichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
1,4-Dichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
2,2-Dichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
2-Butanone (MEK)	< .01	mg/l			WG589989	04/27/12 13:56
2-Chloroethyl vinyl ether	< .05	mg/l			WG589989	04/27/12 13:56
2-Chlorotoluene	< .001	mg/l			WG589989	04/27/12 13:56
4-Chlorotoluene	< .001	mg/l			WG589989	04/27/12 13:56
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589989	04/27/12 13:56
Acetone	< .05	mg/l			WG589989	04/27/12 13:56
Acrolein	< .025	mg/l			WG589989	04/27/12 13:56
Acrylonitrile	< .01	mg/l			WG589989	04/27/12 13:56
Benzene	< .001	mg/l			WG589989	04/27/12 13:56
Bromobenzene	< .001	mg/l			WG589989	04/27/12 13:56
Bromodichloromethane	< .001	mg/l			WG589989	04/27/12 13:56
Bromoform	< .001	mg/l			WG589989	04/27/12 13:56
Bromomethane	< .005	mg/l			WG589989	04/27/12 13:56
Carbon tetrachloride	< .001	mg/l			WG589989	04/27/12 13:56
Chlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
Chlorodibromomethane	< .001	mg/l			WG589989	04/27/12 13:56
Chloroethane	< .005	mg/l			WG589989	04/27/12 13:56
Chloroform	< .005	mg/l			WG589989	04/27/12 13:56
Chloromethane	< .0025	mg/l			WG589989	04/27/12 13:56
cis-1,2-Dichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
cis-1,3-Dichloropropene	< .001	mg/l			WG589989	04/27/12 13:56
Di-isopropyl ether	< .001	mg/l			WG589989	04/27/12 13:56
Dibromomethane	< .001	mg/l			WG589989	04/27/12 13:56
Dichlorodifluoromethane	< .005	mg/l			WG589989	04/27/12 13:56
Ethylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Hexachloro-1,3-butadiene	< .001	mg/l			WG589989	04/27/12 13:56
Isopropylbenzene	< .001	mg/l			WG589989	04/27/12 13:56

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Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Methyl tert-butyl ether	< .001	mg/l			WG589989	04/27/12 13:56
Methylene Chloride	< .005	mg/l			WG589989	04/27/12 13:56
n-Butylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
n-Propylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Naphthalene	< .005	mg/l			WG589989	04/27/12 13:56
p-Isopropyltoluene	< .001	mg/l			WG589989	04/27/12 13:56
sec-Butylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Styrene	< .001	mg/l			WG589989	04/27/12 13:56
tert-Butylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Tetrachloroethene	< .001	mg/l			WG589989	04/27/12 13:56
Toluene	< .005	mg/l			WG589989	04/27/12 13:56
trans-1,2-Dichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
trans-1,3-Dichloropropene	< .001	mg/l			WG589989	04/27/12 13:56
Trichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
Trichlorofluoromethane	< .005	mg/l			WG589989	04/27/12 13:56
Vinyl chloride	< .001	mg/l			WG589989	04/27/12 13:56
Xylenes, Total	< .003	mg/l			WG589989	04/27/12 13:56
4-Bromofluorobenzene		% Rec.	93.72	82-120	WG589989	04/27/12 13:56
Dibromofluoromethane		% Rec.	103.2	82-126	WG589989	04/27/12 13:56
Toluene-d8		% Rec.	101.8	92-112	WG589989	04/27/12 13:56
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG590232	04/29/12 20:29
1,1,1-Trichloroethane	< .001	mg/l			WG590232	04/29/12 20:29
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG590232	04/29/12 20:29
1,1,2-Trichloroethane	< .001	mg/l			WG590232	04/29/12 20:29
1,1-Dichloroethane	< .001	mg/l			WG590232	04/29/12 20:29
1,1-Dichloroethene	< .001	mg/l			WG590232	04/29/12 20:29
1,1-Dichloropropene	< .001	mg/l			WG590232	04/29/12 20:29
1,2,3-Trichlorobenzene	< .001	mg/l			WG590232	04/29/12 20:29
1,2,3-Trichloropropane	< .001	mg/l			WG590232	04/29/12 20:29
1,2,4-Trichlorobenzene	< .001	mg/l			WG590232	04/29/12 20:29
1,2,4-Trimethylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG590232	04/29/12 20:29
1,2-Dibromoethane	< .001	mg/l			WG590232	04/29/12 20:29
1,2-Dichlorobenzene	< .001	mg/l			WG590232	04/29/12 20:29
1,2-Dichloroethane	< .001	mg/l			WG590232	04/29/12 20:29
1,2-Dichloropropane	< .001	mg/l			WG590232	04/29/12 20:29
1,3,5-Trimethylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
1,3-Dichlorobenzene	< .001	mg/l			WG590232	04/29/12 20:29
1,3-Dichloropropane	< .001	mg/l			WG590232	04/29/12 20:29
1,4-Dichlorobenzene	< .001	mg/l			WG590232	04/29/12 20:29
2,2-Dichloropropane	< .001	mg/l			WG590232	04/29/12 20:29
2-Butanone (MEK)	< .01	mg/l			WG590232	04/29/12 20:29
2-Chloroethyl vinyl ether	< .05	mg/l			WG590232	04/29/12 20:29
2-Chlorotoluene	< .001	mg/l			WG590232	04/29/12 20:29
4-Chlorotoluene	< .001	mg/l			WG590232	04/29/12 20:29
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG590232	04/29/12 20:29
Acetone	< .05	mg/l			WG590232	04/29/12 20:29
Acrolein	< .025	mg/l			WG590232	04/29/12 20:29
Acrylonitrile	< .01	mg/l			WG590232	04/29/12 20:29
Benzene	< .001	mg/l			WG590232	04/29/12 20:29
Bromobenzene	< .001	mg/l			WG590232	04/29/12 20:29
Bromodichloromethane	< .001	mg/l			WG590232	04/29/12 20:29
Bromoform	< .001	mg/l			WG590232	04/29/12 20:29
Bromomethane	< .005	mg/l			WG590232	04/29/12 20:29
Carbon tetrachloride	< .001	mg/l			WG590232	04/29/12 20:29
Chlorobenzene	< .001	mg/l			WG590232	04/29/12 20:29
Chlorodibromomethane	< .001	mg/l			WG590232	04/29/12 20:29

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Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chloroethane	< .005	mg/l			WG590232	04/29/12 20:29
Chloroform	< .005	mg/l			WG590232	04/29/12 20:29
Chloromethane	< .0025	mg/l			WG590232	04/29/12 20:29
cis-1,2-Dichloroethene	< .001	mg/l			WG590232	04/29/12 20:29
cis-1,3-Dichloropropene	< .001	mg/l			WG590232	04/29/12 20:29
Di-isopropyl ether	< .001	mg/l			WG590232	04/29/12 20:29
Dibromomethane	< .001	mg/l			WG590232	04/29/12 20:29
Dichlorodifluoromethane	< .005	mg/l			WG590232	04/29/12 20:29
Ethylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
Hexachloro-1,3-butadiene	< .001	mg/l			WG590232	04/29/12 20:29
Isopropylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
Methyl tert-butyl ether	< .001	mg/l			WG590232	04/29/12 20:29
Methylene Chloride	< .005	mg/l			WG590232	04/29/12 20:29
n-Butylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
n-Propylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
Naphthalene	< .005	mg/l			WG590232	04/29/12 20:29
p-Isopropyltoluene	< .001	mg/l			WG590232	04/29/12 20:29
sec-Butylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
Styrene	< .001	mg/l			WG590232	04/29/12 20:29
tert-Butylbenzene	< .001	mg/l			WG590232	04/29/12 20:29
Tetrachloroethene	< .001	mg/l			WG590232	04/29/12 20:29
Toluene	< .005	mg/l			WG590232	04/29/12 20:29
trans-1,2-Dichloroethene	< .001	mg/l			WG590232	04/29/12 20:29
trans-1,3-Dichloropropene	< .001	mg/l			WG590232	04/29/12 20:29
Trichloroethene	< .001	mg/l			WG590232	04/29/12 20:29
Trichlorofluoromethane	< .005	mg/l			WG590232	04/29/12 20:29
Vinyl chloride	< .001	mg/l			WG590232	04/29/12 20:29
Xylenes, Total	< .003	mg/l			WG590232	04/29/12 20:29
4-Bromofluorobenzene		% Rec.	110.8	82-120	WG590232	04/29/12 20:29
Dibromofluoromethane		% Rec.	95.71	82-126	WG590232	04/29/12 20:29
Toluene-d8		% Rec.	104.9	92-112	WG590232	04/29/12 20:29

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0276	110.	77-128	WG589962
1,1,1-Trichloroethane	mg/l	.025	0.0276	111.	71-126	WG589962
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0259	104.	78-130	WG589962
1,1,2-Trichloroethane	mg/l	.025	0.0274	109.	81-121	WG589962
1,1-Dichloroethane	mg/l	.025	0.0264	106.	73-123	WG589962
1,1-Dichloroethene	mg/l	.025	0.0242	96.9	54-134	WG589962
1,1-Dichloropropene	mg/l	.025	0.0248	99.1	67-127	WG589962
1,2,3-Trichlorobenzene	mg/l	.025	0.0254	102.	77-130	WG589962
1,2,3-Trichloropropane	mg/l	.025	0.0266	106.	68-130	WG589962
1,2,4-Trichlorobenzene	mg/l	.025	0.0248	99.4	76-127	WG589962
1,2,4-Trimethylbenzene	mg/l	.025	0.0275	110.	77-129	WG589962
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0239	95.6	55-142	WG589962
1,2-Dibromoethane	mg/l	.025	0.0249	99.7	78-124	WG589962
1,2-Dichlorobenzene	mg/l	.025	0.0247	98.7	82-121	WG589962
1,2-Dichloroethane	mg/l	.025	0.0267	107.	69-128	WG589962
1,2-Dichloropropane	mg/l	.025	0.0247	98.7	77-121	WG589962
1,3,5-Trimethylbenzene	mg/l	.025	0.0283	113.	78-127	WG589962
1,3-Dichlorobenzene	mg/l	.025	0.0280	112.	77-127	WG589962
1,3-Dichloropropane	mg/l	.025	0.0241	96.3	78-117	WG589962
1,4-Dichlorobenzene	mg/l	.025	0.0247	98.7	79-117	WG589962
2,2-Dichloropropane	mg/l	.025	0.0288	115.	63-130	WG589962
2-Butanone (MEK)	mg/l	.125	0.145	116.	58-144	WG589962
2-Chloroethyl vinyl ether	mg/l	.125	0.122	97.5	26-172	WG589962
2-Chlorotoluene	mg/l	.025	0.0272	109.	78-123	WG589962

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
4-Chlorotoluene	mg/l	.025	0.0275	110.	78-122	WG589962
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.140	112.	58-147	WG589962
Acetone	mg/l	.125	0.203	163.*	49-153	WG589962
Acrolein	mg/l	.125	0.119	94.9	10-181	WG589962
Acrylonitrile	mg/l	.125	0.134	107.	53-153	WG589962
Benzene	mg/l	.025	0.0249	99.4	72-119	WG589962
Bromobenzene	mg/l	.025	0.0265	106.	76-121	WG589962
Bromodichloromethane	mg/l	.025	0.0265	106.	75-127	WG589962
Bromoform	mg/l	.025	0.0265	106.	61-136	WG589962
Bromomethane	mg/l	.025	0.0267	107.	42-172	WG589962
Carbon tetrachloride	mg/l	.025	0.0271	108.	63-129	WG589962
Chlorobenzene	mg/l	.025	0.0266	106.	78-123	WG589962
Chlorodibromomethane	mg/l	.025	0.0262	105.	73-128	WG589962
Chloroethane	mg/l	.025	0.0258	103.	52-164	WG589962
Chloroform	mg/l	.025	0.0274	110.	76-122	WG589962
Chloromethane	mg/l	.025	0.0263	105.	50-141	WG589962
cis-1,2-Dichloroethene	mg/l	.025	0.0259	104.	75-121	WG589962
cis-1,3-Dichloropropene	mg/l	.025	0.0262	105.	74-124	WG589962
Di-isopropyl ether	mg/l	.025	0.0273	109.	66-129	WG589962
Dibromomethane	mg/l	.025	0.0253	101.	77-124	WG589962
Dichlorodifluoromethane	mg/l	.025	0.0297	119.	33-173	WG589962
Ethylbenzene	mg/l	.025	0.0271	108.	77-124	WG589962
Hexachloro-1,3-butadiene	mg/l	.025	0.0241	96.6	71-134	WG589962
Isopropylbenzene	mg/l	.025	0.0292	117.	74-126	WG589962
Methyl tert-butyl ether	mg/l	.025	0.0268	107.	67-127	WG589962
Methylene Chloride	mg/l	.025	0.0237	94.7	67-122	WG589962
n-Butylbenzene	mg/l	.025	0.0260	104.	74-130	WG589962
n-Propylbenzene	mg/l	.025	0.0274	110.	77-125	WG589962
Naphthalene	mg/l	.025	0.0240	96.2	70-134	WG589962
p-Isopropyltoluene	mg/l	.025	0.0288	115.	77-132	WG589962
sec-Butylbenzene	mg/l	.025	0.0286	114.	77-130	WG589962
Styrene	mg/l	.025	0.0273	109.	69-145	WG589962
tert-Butylbenzene	mg/l	.025	0.0291	116.	76-131	WG589962
Tetrachloroethene	mg/l	.025	0.0259	104.	69-131	WG589962
Toluene	mg/l	.025	0.0244	97.4	75-114	WG589962
trans-1,2-Dichloroethene	mg/l	.025	0.0245	98.1	63-127	WG589962
trans-1,3-Dichloropropene	mg/l	.025	0.0249	99.5	69-124	WG589962
Trichloroethene	mg/l	.025	0.0252	101.	69-131	WG589962
Trichlorofluoromethane	mg/l	.025	0.0283	113.	53-161	WG589962
Vinyl chloride	mg/l	.025	0.0249	99.5	55-142	WG589962
Xylenes, Total	mg/l	.075	0.0807	108.	77-123	WG589962
4-Bromofluorobenzene				103.9	82-120	WG589962
Dibromofluoromethane				103.2	82-126	WG589962
Toluene-d8				102.9	92-112	WG589962
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0233	93.0	77-128	WG589989
1,1,1-Trichloroethane	mg/l	.025	0.0213	85.2	71-126	WG589989
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0225	90.2	78-130	WG589989
1,1,2-Trichloroethane	mg/l	.025	0.0228	91.3	81-121	WG589989
1,1-Dichloroethane	mg/l	.025	0.0210	83.8	73-123	WG589989
1,1-Dichloroethene	mg/l	.025	0.0179	71.4	54-134	WG589989
1,1-Dichloropropene	mg/l	.025	0.0193	77.2	67-127	WG589989
1,2,3-Trichlorobenzene	mg/l	.025	0.0228	91.3	77-130	WG589989
1,2,3-Trichloropropane	mg/l	.025	0.0229	91.6	68-130	WG589989
1,2,4-Trichlorobenzene	mg/l	.025	0.0228	91.4	76-127	WG589989
1,2,4-Trimethylbenzene	mg/l	.025	0.0208	83.4	77-129	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0221	88.3	55-142	WG589989
1,2-Dibromoethane	mg/l	.025	0.0243	97.0	78-124	WG589989

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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
1,2-Dichlorobenzene	mg/l	.025	0.0217	86.7	82-121	WG589989
1,2-Dichloroethane	mg/l	.025	0.0221	88.2	69-128	WG589989
1,2-Dichloropropane	mg/l	.025	0.0210	84.1	77-121	WG589989
1,3,5-Trimethylbenzene	mg/l	.025	0.0214	85.5	78-127	WG589989
1,3-Dichlorobenzene	mg/l	.025	0.0221	88.3	77-127	WG589989
1,3-Dichloropropane	mg/l	.025	0.0230	92.0	78-117	WG589989
1,4-Dichlorobenzene	mg/l	.025	0.0217	86.8	79-117	WG589989
2,2-Dichloropropane	mg/l	.025	0.0209	83.8	63-130	WG589989
2-Butanone (MEK)	mg/l	.125	0.123	98.3	58-144	WG589989
2-Chloroethyl vinyl ether	mg/l	.125	0.104	83.2	26-172	WG589989
2-Chlorotoluene	mg/l	.025	0.0212	84.8	78-123	WG589989
4-Chlorotoluene	mg/l	.025	0.0212	85.0	78-122	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.115	92.3	58-147	WG589989
Acetone	mg/l	.125	0.144	116.	49-153	WG589989
Acrolein	mg/l	.125	0.116	92.5	10-181	WG589989
Acrylonitrile	mg/l	.125	0.112	89.3	53-153	WG589989
Benzene	mg/l	.025	0.0196	78.5	72-119	WG589989
Bromobenzene	mg/l	.025	0.0205	81.8	76-121	WG589989
Bromodichloromethane	mg/l	.025	0.0223	89.2	75-127	WG589989
Bromoform	mg/l	.025	0.0240	95.9	61-136	WG589989
Bromomethane	mg/l	.025	0.0138	55.0	42-172	WG589989
Carbon tetrachloride	mg/l	.025	0.0199	79.7	63-129	WG589989
Chlorobenzene	mg/l	.025	0.0210	84.1	78-123	WG589989
Chlorodibromomethane	mg/l	.025	0.0234	93.4	73-128	WG589989
Chloroethane	mg/l	.025	0.0194	77.8	52-164	WG589989
Chloroform	mg/l	.025	0.0216	86.5	76-122	WG589989
Chloromethane	mg/l	.025	0.0154	61.7	50-141	WG589989
cis-1,2-Dichloroethene	mg/l	.025	0.0205	81.9	75-121	WG589989
cis-1,3-Dichloropropene	mg/l	.025	0.0231	92.4	74-124	WG589989
Di-isopropyl ether	mg/l	.025	0.0224	89.8	66-129	WG589989
Dibromomethane	mg/l	.025	0.0243	97.2	77-124	WG589989
Dichlorodifluoromethane	mg/l	.025	0.0172	68.9	33-173	WG589989
Ethylbenzene	mg/l	.025	0.0201	80.3	77-124	WG589989
Hexachloro-1,3-butadiene	mg/l	.025	0.0212	84.8	71-134	WG589989
Isopropylbenzene	mg/l	.025	0.0219	87.7	74-126	WG589989
Methyl tert-butyl ether	mg/l	.025	0.0193	77.1	67-127	WG589989
Methylene Chloride	mg/l	.025	0.0197	78.7	67-122	WG589989
n-Butylbenzene	mg/l	.025	0.0198	79.3	74-130	WG589989
n-Propylbenzene	mg/l	.025	0.0198	79.2	77-125	WG589989
Naphthalene	mg/l	.025	0.0233	93.0	70-134	WG589989
p-Isopropyltoluene	mg/l	.025	0.0215	86.1	77-132	WG589989
sec-Butylbenzene	mg/l	.025	0.0213	85.0	77-130	WG589989
Styrene	mg/l	.025	0.0208	83.2	69-145	WG589989
tert-Butylbenzene	mg/l	.025	0.0219	87.4	76-131	WG589989
Tetrachloroethene	mg/l	.025	0.0203	81.1	69-131	WG589989
Toluene	mg/l	.025	0.0204	81.7	75-114	WG589989
trans-1,2-Dichloroethene	mg/l	.025	0.0192	76.9	63-127	WG589989
trans-1,3-Dichloropropene	mg/l	.025	0.0233	93.4	69-124	WG589989
Trichloroethene	mg/l	.025	0.0207	82.7	69-131	WG589989
Trichlorofluoromethane	mg/l	.025	0.0214	85.8	53-161	WG589989
Vinyl chloride	mg/l	.025	0.0176	70.5	55-142	WG589989
Xylenes, Total	mg/l	.075	0.0611	81.5	77-123	WG589989
4-Bromofluorobenzene				98.86	82-120	WG589989
Dibromofluoromethane				101.5	82-126	WG589989
Toluene-d8				103.4	92-112	WG589989
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0278	111.	77-128	WG590232
1,1,1-Trichloroethane	mg/l	.025	0.0258	103.	71-126	WG590232

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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0270	108.	78-130	WG590232
1,1,2-Trichloroethane	mg/l	.025	0.0269	108.	81-121	WG590232
1,1-Dichloroethane	mg/l	.025	0.0250	99.8	73-123	WG590232
1,1-Dichloroethene	mg/l	.025	0.0234	93.5	54-134	WG590232
1,1-Dichloropropene	mg/l	.025	0.0244	97.5	67-127	WG590232
1,2,3-Trichlorobenzene	mg/l	.025	0.0244	97.7	77-130	WG590232
1,2,3-Trichloropropane	mg/l	.025	0.0272	109.	68-130	WG590232
1,2,4-Trichlorobenzene	mg/l	.025	0.0242	96.9	76-127	WG590232
1,2,4-Trimethylbenzene	mg/l	.025	0.0268	107.	77-129	WG590232
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0247	98.7	55-142	WG590232
1,2-Dibromoethane	mg/l	.025	0.0268	107.	78-124	WG590232
1,2-Dichlorobenzene	mg/l	.025	0.0256	102.	82-121	WG590232
1,2-Dichloroethane	mg/l	.025	0.0260	104.	69-128	WG590232
1,2-Dichloropropane	mg/l	.025	0.0266	107.	77-121	WG590232
1,3,5-Trimethylbenzene	mg/l	.025	0.0269	108.	78-127	WG590232
1,3-Dichlorobenzene	mg/l	.025	0.0271	109.	77-127	WG590232
1,3-Dichloropropane	mg/l	.025	0.0259	103.	78-117	WG590232
1,4-Dichlorobenzene	mg/l	.025	0.0248	99.2	79-117	WG590232
2,2-Dichloropropane	mg/l	.025	0.0245	98.0	63-130	WG590232
2-Butanone (MEK)	mg/l	.125	0.119	95.0	58-144	WG590232
2-Chloroethyl vinyl ether	mg/l	.125	0.116	92.7	26-172	WG590232
2-Chlorotoluene	mg/l	.025	0.0264	106.	78-123	WG590232
4-Chlorotoluene	mg/l	.025	0.0265	106.	78-122	WG590232
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.127	102.	58-147	WG590232
Acetone	mg/l	.125	0.106	84.5	49-153	WG590232
Acrolein	mg/l	.125	0.116	92.4	10-181	WG590232
Acrylonitrile	mg/l	.125	0.121	96.6	53-153	WG590232
Benzene	mg/l	.025	0.0243	97.2	72-119	WG590232
Bromobenzene	mg/l	.025	0.0266	106.	76-121	WG590232
Bromodichloromethane	mg/l	.025	0.0277	111.	75-127	WG590232
Bromoform	mg/l	.025	0.0274	110.	61-136	WG590232
Bromomethane	mg/l	.025	0.0270	108.	42-172	WG590232
Carbon tetrachloride	mg/l	.025	0.0255	102.	63-129	WG590232
Chlorobenzene	mg/l	.025	0.0267	107.	78-123	WG590232
Chlorodibromomethane	mg/l	.025	0.0278	111.	73-128	WG590232
Chloroethane	mg/l	.025	0.0241	96.6	52-164	WG590232
Chloroform	mg/l	.025	0.0257	103.	76-122	WG590232
Chloromethane	mg/l	.025	0.0214	85.7	50-141	WG590232
cis-1,2-Dichloroethene	mg/l	.025	0.0251	101.	75-121	WG590232
cis-1,3-Dichloropropene	mg/l	.025	0.0272	109.	74-124	WG590232
Di-isopropyl ether	mg/l	.025	0.0245	98.1	66-129	WG590232
Dibromomethane	mg/l	.025	0.0270	108.	77-124	WG590232
Dichlorodifluoromethane	mg/l	.025	0.0208	83.3	33-173	WG590232
Ethylbenzene	mg/l	.025	0.0267	107.	77-124	WG590232
Hexachloro-1,3-butadiene	mg/l	.025	0.0248	99.1	71-134	WG590232
Isopropylbenzene	mg/l	.025	0.0272	109.	74-126	WG590232
Methyl tert-butyl ether	mg/l	.025	0.0251	100.	67-127	WG590232
Methylene Chloride	mg/l	.025	0.0235	94.0	67-122	WG590232
n-Butylbenzene	mg/l	.025	0.0243	97.2	74-130	WG590232
n-Propylbenzene	mg/l	.025	0.0262	105.	77-125	WG590232
Naphthalene	mg/l	.025	0.0243	97.2	70-134	WG590232
p-Isopropyltoluene	mg/l	.025	0.0271	109.	77-132	WG590232
sec-Butylbenzene	mg/l	.025	0.0271	108.	77-130	WG590232
Styrene	mg/l	.025	0.0267	107.	69-145	WG590232
tert-Butylbenzene	mg/l	.025	0.0275	110.	76-131	WG590232
Tetrachloroethene	mg/l	.025	0.0260	104.	69-131	WG590232
Toluene	mg/l	.025	0.0266	106.	75-114	WG590232
trans-1,2-Dichloroethene	mg/l	.025	0.0244	97.6	63-127	WG590232
trans-1,3-Dichloropropene	mg/l	.025	0.0274	110.	69-124	WG590232

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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Trichloroethene	mg/l	.025	0.0268	107.	69-131	WG590232
Trichlorofluoromethane	mg/l	.025	0.0251	100.	53-161	WG590232
Vinyl chloride	mg/l	.025	0.0236	94.5	55-142	WG590232
Xylenes, Total	mg/l	.075	0.0791	106.	77-123	WG590232
4-Bromofluorobenzene				110.5	82-120	WG590232
Dibromofluoromethane				97.10	82-126	WG590232
Toluene-d8				106.0	92-112	WG590232

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0257	0.0276	103.	77-128	6.92	20	WG589962
1,1,1-Trichloroethane	mg/l	0.0260	0.0276	104.	71-126	6.13	20	WG589962
1,1,2,2-Tetrachloroethane	mg/l	0.0255	0.0259	102.	78-130	1.75	20	WG589962
1,1,2-Trichloroethane	mg/l	0.0245	0.0274	98.0	81-121	11.0	20	WG589962
1,1-Dichloroethane	mg/l	0.0248	0.0264	99.0	73-123	6.46	20	WG589962
1,1-Dichloroethene	mg/l	0.0234	0.0242	94.0	54-134	3.38	20	WG589962
1,1-Dichloropropene	mg/l	0.0235	0.0248	94.0	67-127	5.28	20	WG589962
1,2,3-Trichlorobenzene	mg/l	0.0238	0.0254	95.0	77-130	6.46	20	WG589962
1,2,3-Trichloropropane	mg/l	0.0266	0.0266	106.	68-130	0.170	20	WG589962
1,2,4-Trichlorobenzene	mg/l	0.0236	0.0248	94.0	76-127	5.09	20	WG589962
1,2,4-Trimethylbenzene	mg/l	0.0256	0.0275	102.	77-129	7.26	20	WG589962
1,2-Dibromo-3-Chloropropane	mg/l	0.0226	0.0239	90.0	55-142	5.81	20	WG589962
1,2-Dibromoethane	mg/l	0.0250	0.0249	100.	78-124	0.330	20	WG589962
1,2-Dichlorobenzene	mg/l	0.0231	0.0247	92.0	82-121	6.83	20	WG589962
1,2-Dichloroethane	mg/l	0.0263	0.0267	105.	69-128	1.42	20	WG589962
1,2-Dichloropropane	mg/l	0.0245	0.0247	98.0	77-121	0.580	20	WG589962
1,3,5-Trimethylbenzene	mg/l	0.0274	0.0283	109.	78-127	3.21	20	WG589962
1,3-Dichlorobenzene	mg/l	0.0271	0.0280	108.	77-127	3.37	20	WG589962
1,3-Dichloropropane	mg/l	0.0245	0.0241	98.0	78-117	1.85	20	WG589962
1,4-Dichlorobenzene	mg/l	0.0230	0.0247	92.0	79-117	6.80	20	WG589962
2,2-Dichloropropane	mg/l	0.0289	0.0288	116.	63-130	0.260	20	WG589962
2-Butanone (MEK)	mg/l	0.147	0.145	118.	58-144	1.48	20	WG589962
2-Chloroethyl vinyl ether	mg/l	0.126	0.122	101.	26-172	3.65	22	WG589962
2-Chlorotoluene	mg/l	0.0256	0.0272	102.	78-123	6.08	20	WG589962
4-Chlorotoluene	mg/l	0.0261	0.0275	104.	78-122	5.40	20	WG589962
4-Methyl-2-pentanone (MIBK)	mg/l	0.133	0.140	106.	58-147	5.24	20	WG589962
Acetone	mg/l	0.194	0.203	156*	49-153	4.39	21	WG589962
Acrolein	mg/l	0.117	0.119	93.0	10-181	1.70	30	WG589962
Acrylonitrile	mg/l	0.132	0.134	106.	53-153	1.35	20	WG589962
Benzene	mg/l	0.0241	0.0249	96.0	72-119	2.90	20	WG589962
Bromobenzene	mg/l	0.0254	0.0265	101.	76-121	4.22	20	WG589962
Bromodichloromethane	mg/l	0.0253	0.0265	101.	75-127	4.82	20	WG589962
Bromoform	mg/l	0.0264	0.0265	106.	61-136	0.450	20	WG589962
Bromomethane	mg/l	0.0250	0.0267	100.	42-172	6.45	20	WG589962
Carbon tetrachloride	mg/l	0.0251	0.0271	100.	63-129	7.40	20	WG589962
Chlorobenzene	mg/l	0.0262	0.0266	105.	78-123	1.36	20	WG589962
Chlorodibromomethane	mg/l	0.0253	0.0262	101.	73-128	3.52	20	WG589962
Chloroethane	mg/l	0.0243	0.0258	97.0	52-164	6.01	20	WG589962
Chloroform	mg/l	0.0258	0.0274	103.	76-122	5.74	20	WG589962
Chloromethane	mg/l	0.0258	0.0263	103.	50-141	2.25	20	WG589962
cis-1,2-Dichloroethene	mg/l	0.0247	0.0259	99.0	75-121	4.64	20	WG589962
cis-1,3-Dichloropropene	mg/l	0.0253	0.0262	101.	74-124	3.55	20	WG589962
Di-isopropyl ether	mg/l	0.0267	0.0273	107.	66-129	2.00	20	WG589962
Dibromomethane	mg/l	0.0232	0.0253	93.0	77-124	8.59	20	WG589962
Dichlorodifluoromethane	mg/l	0.0274	0.0297	110.	33-173	7.99	20	WG589962
Ethylbenzene	mg/l	0.0265	0.0271	106.	77-124	2.11	20	WG589962
Hexachloro-1,3-butadiene	mg/l	0.0233	0.0241	93.0	71-134	3.64	20	WG589962
Isopropylbenzene	mg/l	0.0273	0.0292	109.	74-126	6.48	20	WG589962

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Lee & Ryan Environmental
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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Methyl tert-butyl ether	mg/l	0.0257	0.0268	103.	67-127	4.01	20	WG589962
Methylene Chloride	mg/l	0.0226	0.0237	90.0	67-122	4.61	20	WG589962
n-Butylbenzene	mg/l	0.0243	0.0260	97.0	74-130	6.97	20	WG589962
n-Propylbenzene	mg/l	0.0261	0.0274	104.	77-125	5.16	20	WG589962
Naphthalene	mg/l	0.0227	0.0240	91.0	70-134	5.51	20	WG589962
p-Isopropyltoluene	mg/l	0.0272	0.0288	109.	77-132	5.78	20	WG589962
sec-Butylbenzene	mg/l	0.0266	0.0286	106.	77-130	7.12	20	WG589962
Styrene	mg/l	0.0272	0.0273	109.	69-145	0.400	20	WG589962
tert-Butylbenzene	mg/l	0.0272	0.0291	109.	76-131	6.95	20	WG589962
Tetrachloroethene	mg/l	0.0250	0.0259	100.	69-131	3.85	20	WG589962
Toluene	mg/l	0.0238	0.0244	95.0	75-114	2.42	20	WG589962
trans-1,2-Dichloroethene	mg/l	0.0236	0.0245	94.0	63-127	3.60	20	WG589962
trans-1,3-Dichloropropene	mg/l	0.0254	0.0249	102.	69-124	2.08	20	WG589962
Trichloroethene	mg/l	0.0241	0.0252	96.0	69-131	4.62	20	WG589962
Trichlorofluoromethane	mg/l	0.0270	0.0283	108.	53-161	4.72	20	WG589962
Vinyl chloride	mg/l	0.0232	0.0249	93.0	55-142	7.10	20	WG589962
Xylenes, Total	mg/l	0.0767	0.0807	102.	77-123	5.02	20	WG589962
4-Bromofluorobenzene				108.6	82-120			WG589962
Dibromofluoromethane				101.0	82-126			WG589962
Toluene-d8				101.0	92-112			WG589962
1,1,1,2-Tetrachloroethane	mg/l	0.0259	0.0233	103.	77-128	10.7	20	WG589989
1,1,1-Trichloroethane	mg/l	0.0219	0.0213	88.0	71-126	2.69	20	WG589989
1,1,2,2-Tetrachloroethane	mg/l	0.0248	0.0225	99.0	78-130	9.38	20	WG589989
1,1,2-Trichloroethane	mg/l	0.0251	0.0228	100.	81-121	9.36	20	WG589989
1,1-Dichloroethane	mg/l	0.0216	0.0210	86.0	73-123	2.88	20	WG589989
1,1-Dichloroethene	mg/l	0.0187	0.0179	75.0	54-134	4.36	20	WG589989
1,1-Dichloropropene	mg/l	0.0196	0.0193	78.0	67-127	1.33	20	WG589989
1,2,3-Trichlorobenzene	mg/l	0.0249	0.0228	100.	77-130	8.57	20	WG589989
1,2,3-Trichloropropane	mg/l	0.0262	0.0229	105.	68-130	13.4	20	WG589989
1,2,4-Trichlorobenzene	mg/l	0.0248	0.0228	99.0	76-127	8.27	20	WG589989
1,2,4-Trimethylbenzene	mg/l	0.0229	0.0208	92.0	77-129	9.31	20	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	0.0241	0.0221	96.0	55-142	8.58	20	WG589989
1,2-Dibromoethane	mg/l	0.0263	0.0243	105.	78-124	8.21	20	WG589989
1,2-Dichlorobenzene	mg/l	0.0238	0.0217	95.0	82-121	9.26	20	WG589989
1,2-Dichloroethane	mg/l	0.0228	0.0221	91.0	69-128	3.46	20	WG589989
1,2-Dichloropropane	mg/l	0.0228	0.0210	91.0	77-121	8.03	20	WG589989
1,3,5-Trimethylbenzene	mg/l	0.0235	0.0214	94.0	78-127	9.40	20	WG589989
1,3-Dichlorobenzene	mg/l	0.0250	0.0221	100.	77-127	12.2	20	WG589989
1,3-Dichloropropane	mg/l	0.0252	0.0230	101.	78-117	9.00	20	WG589989
1,4-Dichlorobenzene	mg/l	0.0239	0.0217	96.0	79-117	9.63	20	WG589989
2,2-Dichloropropane	mg/l	0.0224	0.0209	89.0	63-130	6.56	20	WG589989
2-Butanone (MEK)	mg/l	0.131	0.123	104.	58-144	6.19	20	WG589989
2-Chloroethyl vinyl ether	mg/l	0.105	0.104	84.0	26-172	0.710	22	WG589989
2-Chlorotoluene	mg/l	0.0233	0.0212	93.0	78-123	9.60	20	WG589989
4-Chlorotoluene	mg/l	0.0236	0.0212	94.0	78-122	10.5	20	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	0.126	0.115	101.	58-147	9.05	20	WG589989
Acetone	mg/l	0.153	0.144	123.	49-153	6.01	21	WG589989
Acrolein	mg/l	0.121	0.116	97.0	10-181	4.66	30	WG589989
Acrylonitrile	mg/l	0.114	0.112	91.0	53-153	2.25	20	WG589989
Benzene	mg/l	0.0204	0.0196	81.0	72-119	3.71	20	WG589989
Bromobenzene	mg/l	0.0231	0.0205	92.0	76-121	12.0	20	WG589989
Bromodichloromethane	mg/l	0.0239	0.0223	96.0	75-127	6.86	20	WG589989
Bromoform	mg/l	0.0267	0.0240	107.	61-136	10.6	20	WG589989
Bromomethane	mg/l	0.0151	0.0138	60.0	42-172	9.27	20	WG589989
Carbon tetrachloride	mg/l	0.0203	0.0199	81.0	63-129	1.78	20	WG589989
Chlorobenzene	mg/l	0.0228	0.0210	91.0	78-123	7.98	20	WG589989
Chlorodibromomethane	mg/l	0.0261	0.0234	104.	73-128	11.1	20	WG589989

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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Chloroethane	mg/l	0.0197	0.0194	79.0	52-164	1.38	20	WG589989
Chloroform	mg/l	0.0227	0.0216	91.0	76-122	4.74	20	WG589989
Chloromethane	mg/l	0.0161	0.0154	64.0	50-141	4.29	20	WG589989
cis-1,2-Dichloroethene	mg/l	0.0220	0.0205	88.0	75-121	6.93	20	WG589989
cis-1,3-Dichloropropene	mg/l	0.0249	0.0231	99.0	74-124	7.38	20	WG589989
Di-isopropyl ether	mg/l	0.0233	0.0224	93.0	66-129	3.60	20	WG589989
Dibromomethane	mg/l	0.0260	0.0243	104.	77-124	6.67	20	WG589989
Dichlorodifluoromethane	mg/l	0.0176	0.0172	70.0	33-173	2.28	20	WG589989
Ethylbenzene	mg/l	0.0219	0.0201	88.0	77-124	8.74	20	WG589989
Hexachloro-1,3-butadiene	mg/l	0.0229	0.0212	92.0	71-134	7.79	20	WG589989
Isopropylbenzene	mg/l	0.0242	0.0219	97.0	74-126	9.99	20	WG589989
Methyl tert-butyl ether	mg/l	0.0198	0.0193	79.0	67-127	2.84	20	WG589989
Methylene Chloride	mg/l	0.0206	0.0197	82.0	67-122	4.63	20	WG589989
n-Butylbenzene	mg/l	0.0216	0.0198	86.0	74-130	8.64	20	WG589989
n-Propylbenzene	mg/l	0.0217	0.0198	87.0	77-125	9.35	20	WG589989
Naphthalene	mg/l	0.0252	0.0233	101.	70-134	8.10	20	WG589989
p-Isopropyltoluene	mg/l	0.0240	0.0215	96.0	77-132	11.1	20	WG589989
sec-Butylbenzene	mg/l	0.0236	0.0213	94.0	77-130	10.4	20	WG589989
Styrene	mg/l	0.0228	0.0208	91.0	69-145	9.31	20	WG589989
tert-Butylbenzene	mg/l	0.0243	0.0219	97.0	76-131	10.4	20	WG589989
Tetrachloroethene	mg/l	0.0213	0.0203	85.0	69-131	4.82	20	WG589989
Toluene	mg/l	0.0212	0.0204	85.0	75-114	3.82	20	WG589989
trans-1,2-Dichloroethene	mg/l	0.0193	0.0192	77.0	63-127	0.180	20	WG589989
trans-1,3-Dichloropropene	mg/l	0.0256	0.0233	102.	69-124	9.08	20	WG589989
Trichloroethene	mg/l	0.0214	0.0207	86.0	69-131	3.49	20	WG589989
Trichlorofluoromethane	mg/l	0.0220	0.0214	88.0	53-161	2.64	20	WG589989
Vinyl chloride	mg/l	0.0179	0.0176	72.0	55-142	1.61	20	WG589989
Xylenes, Total	mg/l	0.0657	0.0611	88.0	77-123	7.18	20	WG589989
4-Bromofluorobenzene				97.54	82-120			WG589989
Dibromofluoromethane				101.1	82-126			WG589989
Toluene-d8				101.5	92-112			WG589989
1,1,1,2-Tetrachloroethane	mg/l	0.0275	0.0278	110.	77-128	1.13	20	WG590232
1,1,1-Trichloroethane	mg/l	0.0254	0.0258	101.	71-126	1.83	20	WG590232
1,1,2,2-Tetrachloroethane	mg/l	0.0268	0.0270	107.	78-130	0.950	20	WG590232
1,1,2-Trichloroethane	mg/l	0.0265	0.0269	106.	81-121	1.37	20	WG590232
1,1-Dichloroethane	mg/l	0.0247	0.0250	99.0	73-123	1.21	20	WG590232
1,1-Dichloroethene	mg/l	0.0233	0.0234	93.0	54-134	0.550	20	WG590232
1,1-Dichloropropene	mg/l	0.0240	0.0244	96.0	67-127	1.40	20	WG590232
1,2,3-Trichlorobenzene	mg/l	0.0242	0.0244	97.0	77-130	0.960	20	WG590232
1,2,3-Trichloropropane	mg/l	0.0274	0.0272	110.	68-130	0.780	20	WG590232
1,2,4-Trichlorobenzene	mg/l	0.0238	0.0242	95.0	76-127	1.66	20	WG590232
1,2,4-Trimethylbenzene	mg/l	0.0268	0.0268	107.	77-129	0.200	20	WG590232
1,2-Dibromo-3-Chloropropane	mg/l	0.0243	0.0247	97.0	55-142	1.72	20	WG590232
1,2-Dibromoethane	mg/l	0.0264	0.0268	105.	78-124	1.60	20	WG590232
1,2-Dichlorobenzene	mg/l	0.0253	0.0256	101.	82-121	0.910	20	WG590232
1,2-Dichloroethane	mg/l	0.0254	0.0260	102.	69-128	2.40	20	WG590232
1,2-Dichloropropane	mg/l	0.0261	0.0266	104.	77-121	1.98	20	WG590232
1,3,5-Trimethylbenzene	mg/l	0.0270	0.0269	108.	78-127	0.410	20	WG590232
1,3-Dichlorobenzene	mg/l	0.0273	0.0271	109.	77-127	0.480	20	WG590232
1,3-Dichloropropane	mg/l	0.0257	0.0259	103.	78-117	0.430	20	WG590232
1,4-Dichlorobenzene	mg/l	0.0248	0.0248	99.0	79-117	0.230	20	WG590232
2,2-Dichloropropane	mg/l	0.0239	0.0245	96.0	63-130	2.59	20	WG590232
2-Butanone (MEK)	mg/l	0.109	0.119	87.0	58-144	8.92	20	WG590232
2-Chloroethyl vinyl ether	mg/l	0.115	0.116	92.0	26-172	0.700	22	WG590232
2-Chlorotoluene	mg/l	0.0265	0.0264	106.	78-123	0.100	20	WG590232
4-Chlorotoluene	mg/l	0.0267	0.0265	107.	78-122	0.790	20	WG590232
4-Methyl-2-pentanone (MIBK)	mg/l	0.124	0.127	99.0	58-147	2.49	20	WG590232

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April 30, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Acetone	mg/l	0.0932	0.106	74.0	49-153	12.6	21	WG590232
Acrolein	mg/l	0.114	0.116	91.0	10-181	1.67	30	WG590232
Acrylonitrile	mg/l	0.120	0.121	96.0	53-153	0.610	20	WG590232
Benzene	mg/l	0.0240	0.0243	96.0	72-119	1.32	20	WG590232
Bromobenzene	mg/l	0.0265	0.0266	106.	76-121	0.240	20	WG590232
Bromodichloromethane	mg/l	0.0271	0.0277	108.	75-127	2.34	20	WG590232
Bromoform	mg/l	0.0276	0.0274	110.	61-136	0.780	20	WG590232
Bromomethane	mg/l	0.0256	0.0270	102.	42-172	5.21	20	WG590232
Carbon tetrachloride	mg/l	0.0250	0.0255	100.	63-129	1.87	20	WG590232
Chlorobenzene	mg/l	0.0268	0.0267	107.	78-123	0.340	20	WG590232
Chlorodibromomethane	mg/l	0.0272	0.0278	109.	73-128	2.12	20	WG590232
Chloroethane	mg/l	0.0239	0.0241	95.0	52-164	1.10	20	WG590232
Chloroform	mg/l	0.0256	0.0257	102.	76-122	0.300	20	WG590232
Chloromethane	mg/l	0.0211	0.0214	84.0	50-141	1.76	20	WG590232
cis-1,2-Dichloroethene	mg/l	0.0249	0.0251	99.0	75-121	1.04	20	WG590232
cis-1,3-Dichloropropene	mg/l	0.0267	0.0272	107.	74-124	2.00	20	WG590232
Di-isopropyl ether	mg/l	0.0241	0.0245	96.0	66-129	1.91	20	WG590232
Dibromomethane	mg/l	0.0265	0.0270	106.	77-124	1.90	20	WG590232
Dichlorodifluoromethane	mg/l	0.0208	0.0208	83.0	33-173	0.330	20	WG590232
Ethylbenzene	mg/l	0.0266	0.0267	106.	77-124	0.400	20	WG590232
Hexachloro-1,3-butadiene	mg/l	0.0238	0.0248	95.0	71-134	3.86	20	WG590232
Isopropylbenzene	mg/l	0.0268	0.0272	107.	74-126	1.48	20	WG590232
Methyl tert-butyl ether	mg/l	0.0252	0.0251	101.	67-127	0.350	20	WG590232
Methylene Chloride	mg/l	0.0234	0.0235	94.0	67-122	0.300	20	WG590232
n-Butylbenzene	mg/l	0.0240	0.0243	96.0	74-130	1.29	20	WG590232
n-Propylbenzene	mg/l	0.0262	0.0262	105.	77-125	0.210	20	WG590232
Naphthalene	mg/l	0.0238	0.0243	95.0	70-134	1.92	20	WG590232
p-Isopropyltoluene	mg/l	0.0272	0.0271	109.	77-132	0.250	20	WG590232
sec-Butylbenzene	mg/l	0.0269	0.0271	107.	77-130	0.790	20	WG590232
Styrene	mg/l	0.0265	0.0267	106.	69-145	0.730	20	WG590232
tert-Butylbenzene	mg/l	0.0275	0.0275	110.	76-131	0.280	20	WG590232
Tetrachloroethene	mg/l	0.0259	0.0260	104.	69-131	0.520	20	WG590232
Toluene	mg/l	0.0263	0.0266	105.	75-114	1.00	20	WG590232
trans-1,2-Dichloroethene	mg/l	0.0246	0.0244	98.0	63-127	0.680	20	WG590232
trans-1,3-Dichloropropene	mg/l	0.0267	0.0274	107.	69-124	2.78	20	WG590232
Trichloroethene	mg/l	0.0262	0.0268	105.	69-131	2.48	20	WG590232
Trichlorofluoromethane	mg/l	0.0247	0.0251	99.0	53-161	1.51	20	WG590232
Vinyl chloride	mg/l	0.0235	0.0236	94.0	55-142	0.650	20	WG590232
Xylenes, Total	mg/l	0.0794	0.0791	106.	77-123	0.320	20	WG590232
4-Bromofluorobenzene				111.0	82-120			WG590232
Dibromofluoromethane				96.72	82-126			WG590232
Toluene-d8				105.6	92-112			WG590232

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0220	0	.025	87.9	71-130	L572138-20	WG589962
1,1,1-Trichloroethane	mg/l	0.0268	0	.025	107.	58-137	L572138-20	WG589962
1,1,2,2-Tetrachloroethane	mg/l	0.0243	0	.025	97.1	64-149	L572138-20	WG589962
1,1,2-Trichloroethane	mg/l	0.0235	0	.025	93.9	73-128	L572138-20	WG589962
1,1-Dichloroethane	mg/l	0.0234	0	.025	93.8	58-133	L572138-20	WG589962
1,1-Dichloroethene	mg/l	0.0223	0	.025	89.2	32-152	L572138-20	WG589962
1,1-Dichloropropene	mg/l	0.0229	0	.025	91.5	50-140	L572138-20	WG589962
1,2,3-Trichlorobenzene	mg/l	0.0228	0	.025	91.2	68-135	L572138-20	WG589962
1,2,3-Trichloropropane	mg/l	0.0251	0	.025	100.	74-137	L572138-20	WG589962
1,2,4-Trichlorobenzene	mg/l	0.0236	0	.025	94.2	67-133	L572138-20	WG589962
1,2,4-Trimethylbenzene	mg/l	0.0226	0	.025	90.5	62-141	L572138-20	WG589962
1,2-Dibromo-3-Chloropropane	mg/l	0.0235	0	.025	94.2	55-148	L572138-20	WG589962
1,2-Dibromoethane	mg/l	0.0217	0	.025	86.8	71-129	L572138-20	WG589962

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L572138

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Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,2-Dichlorobenzene	mg/l	0.0230	0	.025	91.8	75-125	L572138-20	WG589962
1,2-Dichloroethane	mg/l	0.0246	0	.025	98.5	59-135	L572138-20	WG589962
1,2-Dichloropropane	mg/l	0.0238	0	.025	95.2	68-126	L572138-20	WG589962
1,3,5-Trimethylbenzene	mg/l	0.0237	0	.025	94.9	67-136	L572138-20	WG589962
1,3-Dichlorobenzene	mg/l	0.0240	0	.025	96.1	69-131	L572138-20	WG589962
1,3-Dichloropropane	mg/l	0.0216	0	.025	86.4	70-122	L572138-20	WG589962
1,4-Dichlorobenzene	mg/l	0.0228	0	.025	91.3	70-123	L572138-20	WG589962
2,2-Dichloropropane	mg/l	0.0288	0	.025	115.	51-141	L572138-20	WG589962
2-Butanone (MEK)	mg/l	0.126	0	.125	101.	51-149	L572138-20	WG589962
2-Chloroethyl vinyl ether	mg/l	0.0466	0	.125	37.2	10-161	L572138-20	WG589962
2-Chlorotoluene	mg/l	0.0231	0	.025	92.4	65-133	L572138-20	WG589962
4-Chlorotoluene	mg/l	0.0235	0	.025	93.9	67-129	L572138-20	WG589962
4-Methyl-2-pentanone (MIBK)	mg/l	0.145	0	.125	116.	53-154	L572138-20	WG589962
Acetone	mg/l	0.132	0	.125	106.	34-146	L572138-20	WG589962
Acrolein	mg/l	0.151	0	.125	121.	10-189	L572138-20	WG589962
Acrylonitrile	mg/l	0.141	0	.125	113.	49-162	L572138-20	WG589962
Benzene	mg/l	0.0227	0	.025	90.9	51-134	L572138-20	WG589962
Bromobenzene	mg/l	0.0220	0	.025	87.9	64-130	L572138-20	WG589962
Bromodichloromethane	mg/l	0.0245	0	.025	97.9	67-132	L572138-20	WG589962
Bromoform	mg/l	0.0237	0	.025	94.9	59-137	L572138-20	WG589962
Bromomethane	mg/l	0.0223	0	.025	89.3	23-177	L572138-20	WG589962
Carbon tetrachloride	mg/l	0.0252	0	.025	101.	49-140	L572138-20	WG589962
Chlorobenzene	mg/l	0.0230	0	.025	92.2	69-126	L572138-20	WG589962
Chlorodibromomethane	mg/l	0.0224	0	.025	89.8	68-130	L572138-20	WG589962
Chloroethane	mg/l	0.0231	0	.025	92.4	32-177	L572138-20	WG589962
Chloroform	mg/l	0.0254	0	.025	102.	64-130	L572138-20	WG589962
Chloromethane	mg/l	0.0212	0	.025	85.0	27-155	L572138-20	WG589962
cis-1,2-Dichloroethene	mg/l	0.0289	0.00510	.025	95.2	54-137	L572138-20	WG589962
cis-1,3-Dichloropropene	mg/l	0.0246	0	.025	98.6	63-127	L572138-20	WG589962
Di-isopropyl ether	mg/l	0.0249	0	.025	99.4	58-133	L572138-20	WG589962
Dibromomethane	mg/l	0.0248	0	.025	99.3	68-131	L572138-20	WG589962
Dichlorodifluoromethane	mg/l	0.0255	0	.025	102.	16-188	L572138-20	WG589962
Ethylbenzene	mg/l	0.0239	0	.025	95.6	64-135	L572138-20	WG589962
Hexachloro-1,3-butadiene	mg/l	0.0225	0	.025	89.9	64-140	L572138-20	WG589962
Isopropylbenzene	mg/l	0.0243	0	.025	97.2	62-134	L572138-20	WG589962
Methyl tert-butyl ether	mg/l	0.0242	0	.025	96.8	55-136	L572138-20	WG589962
Methylene Chloride	mg/l	0.0212	0	.025	84.8	52-130	L572138-20	WG589962
n-Butylbenzene	mg/l	0.0247	0	.025	98.7	62-142	L572138-20	WG589962
n-Propylbenzene	mg/l	0.0235	0	.025	93.9	62-137	L572138-20	WG589962
Naphthalene	mg/l	0.0233	0	.025	93.1	65-140	L572138-20	WG589962
p-Isopropyltoluene	mg/l	0.0242	0	.025	96.7	64-142	L572138-20	WG589962
sec-Butylbenzene	mg/l	0.0235	0	.025	94.0	67-139	L572138-20	WG589962
Styrene	mg/l	0.0230	0	.025	91.8	58-152	L572138-20	WG589962
tert-Butylbenzene	mg/l	0.0241	0	.025	96.2	66-139	L572138-20	WG589962
Tetrachloroethene	mg/l	0.0217	0	.025	86.8	56-139	L572138-20	WG589962
Toluene	mg/l	0.0238	0	.025	95.0	61-126	L572138-20	WG589962
trans-1,2-Dichloroethene	mg/l	0.0230	0.00190	.025	84.6	45-137	L572138-20	WG589962
trans-1,3-Dichloropropene	mg/l	0.0240	0	.025	96.1	59-130	L572138-20	WG589962
Trichloroethene	mg/l	0.0253	0.00100	.025	97.3	40-155	L572138-20	WG589962
Trichlorofluoromethane	mg/l	0.0264	0	.025	106.	35-177	L572138-20	WG589962
Vinyl chloride	mg/l	0.0215	0	.025	85.9	32-159	L572138-20	WG589962
Xylenes, Total	mg/l	0.0676	0	.075	90.2	64-133	L572138-20	WG589962
4-Bromofluorobenzene					96.20	82-120		WG589962
Dibromofluoromethane					99.46	82-126		WG589962
Toluene-d8					104.3	92-112		WG589962
1,1,1,2-Tetrachloroethane	mg/l	0.0237	0	.025	94.7	71-130	L572035-12	WG589989
1,1,1-Trichloroethane	mg/l	0.0235	0	.025	93.9	58-137	L572035-12	WG589989

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Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,2,2-Tetrachloroethane	mg/l	0.0222	0	.025	89.0	64-149	L572035-12	WG589989
1,1,2-Trichloroethane	mg/l	0.0225	0	.025	90.1	73-128	L572035-12	WG589989
1,1-Dichloroethane	mg/l	0.0226	0	.025	90.2	58-133	L572035-12	WG589989
1,1-Dichloroethene	mg/l	0.0222	0	.025	88.7	32-152	L572035-12	WG589989
1,1-Dichloropropene	mg/l	0.0228	0	.025	91.1	50-140	L572035-12	WG589989
1,2,3-Trichlorobenzene	mg/l	0.0222	0	.025	88.7	68-135	L572035-12	WG589989
1,2,3-Trichloropropane	mg/l	0.0223	0	.025	89.2	74-137	L572035-12	WG589989
1,2,4-Trichlorobenzene	mg/l	0.0231	0	.025	92.6	67-133	L572035-12	WG589989
1,2,4-Trimethylbenzene	mg/l	0.0222	0	.025	88.7	62-141	L572035-12	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	0.0215	0	.025	85.8	55-148	L572035-12	WG589989
1,2-Dibromoethane	mg/l	0.0249	0	.025	99.7	71-129	L572035-12	WG589989
1,2-Dichlorobenzene	mg/l	0.0220	0	.025	88.1	75-125	L572035-12	WG589989
1,2-Dichloroethane	mg/l	0.0229	0	.025	91.4	59-135	L572035-12	WG589989
1,2-Dichloropropane	mg/l	0.0226	0	.025	90.4	68-126	L572035-12	WG589989
1,3,5-Trimethylbenzene	mg/l	0.0231	0	.025	92.5	67-136	L572035-12	WG589989
1,3-Dichlorobenzene	mg/l	0.0229	0	.025	91.7	69-131	L572035-12	WG589989
1,3-Dichloropropane	mg/l	0.0235	0	.025	94.0	70-122	L572035-12	WG589989
1,4-Dichlorobenzene	mg/l	0.0223	0	.025	89.3	70-123	L572035-12	WG589989
2,2-Dichloropropane	mg/l	0.0235	0	.025	94.0	51-141	L572035-12	WG589989
2-Butanone (MEK)	mg/l	0.109	0.0140	.125	75.8	51-149	L572035-12	WG589989
2-Chloroethyl vinyl ether	mg/l	0.0372	0	.125	29.7	10-161	L572035-12	WG589989
2-Chlorotoluene	mg/l	0.0225	0	.025	90.0	65-133	L572035-12	WG589989
4-Chlorotoluene	mg/l	0.0223	0	.025	89.3	67-129	L572035-12	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	0.114	0	.125	91.2	53-154	L572035-12	WG589989
Acetone	mg/l	0.103	0	.125	82.5	34-146	L572035-12	WG589989
Acrolein	mg/l	0.116	0	.125	93.0	10-189	L572035-12	WG589989
Acrylonitrile	mg/l	0.114	0	.125	90.9	49-162	L572035-12	WG589989
Benzene	mg/l	0.0219	0	.025	87.5	51-134	L572035-12	WG589989
Bromobenzene	mg/l	0.0214	0	.025	85.5	64-130	L572035-12	WG589989
Bromodichloromethane	mg/l	0.0230	0	.025	92.0	67-132	L572035-12	WG589989
Bromoform	mg/l	0.0236	0	.025	94.2	59-137	L572035-12	WG589989
Bromomethane	mg/l	0.0187	0	.025	74.8	23-177	L572035-12	WG589989
Carbon tetrachloride	mg/l	0.0226	0	.025	90.4	49-140	L572035-12	WG589989
Chlorobenzene	mg/l	0.0223	0	.025	89.0	69-126	L572035-12	WG589989
Chlorodibromomethane	mg/l	0.0237	0	.025	94.7	68-130	L572035-12	WG589989
Chloroethane	mg/l	0.0231	0	.025	92.5	32-177	L572035-12	WG589989
Chloroform	mg/l	0.0223	0	.025	89.1	64-130	L572035-12	WG589989
Chloromethane	mg/l	0.0188	0	.025	75.4	27-155	L572035-12	WG589989
cis-1,2-Dichloroethene	mg/l	0.0259	0.00360	.025	89.4	54-137	L572035-12	WG589989
cis-1,3-Dichloropropene	mg/l	0.0248	0	.025	99.2	63-127	L572035-12	WG589989
Di-isopropyl ether	mg/l	0.0231	0	.025	92.3	58-133	L572035-12	WG589989
Dibromomethane	mg/l	0.0263	0	.025	105.	68-131	L572035-12	WG589989
Dichlorodifluoromethane	mg/l	0.0215	0	.025	86.1	16-188	L572035-12	WG589989
Ethylbenzene	mg/l	0.0220	0	.025	88.1	64-135	L572035-12	WG589989
Hexachloro-1,3-butadiene	mg/l	0.0233	0	.025	93.1	64-140	L572035-12	WG589989
Isopropylbenzene	mg/l	0.0237	0	.025	95.0	62-134	L572035-12	WG589989
Methyl tert-butyl ether	mg/l	0.0194	0	.025	77.7	55-136	L572035-12	WG589989
Methylene Chloride	mg/l	0.0216	0	.025	86.3	52-130	L572035-12	WG589989
n-Butylbenzene	mg/l	0.0224	0	.025	89.6	62-142	L572035-12	WG589989
n-Propylbenzene	mg/l	0.0218	0	.025	87.1	62-137	L572035-12	WG589989
Naphthalene	mg/l	0.0220	0	.025	88.1	65-140	L572035-12	WG589989
p-Isopropyltoluene	mg/l	0.0238	0	.025	95.1	64-142	L572035-12	WG589989
sec-Butylbenzene	mg/l	0.0232	0	.025	92.8	67-139	L572035-12	WG589989
Styrene	mg/l	0.0212	0	.025	85.0	58-152	L572035-12	WG589989
tert-Butylbenzene	mg/l	0.0234	0	.025	93.8	66-139	L572035-12	WG589989
Tetrachloroethene	mg/l	0.0233	0	.025	93.3	56-139	L572035-12	WG589989
Toluene	mg/l	0.0221	0	.025	88.5	61-126	L572035-12	WG589989
trans-1,2-Dichloroethene	mg/l	0.0223	0	.025	89.2	45-137	L572035-12	WG589989
trans-1,3-Dichloropropene	mg/l	0.0245	0	.025	98.1	59-130	L572035-12	WG589989

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Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Trichloroethene	mg/l	0.0232	0	.025	92.6	40-155	L572035-12	WG589989
Trichlorofluoromethane	mg/l	0.0261	0	.025	104.	35-177	L572035-12	WG589989
Vinyl chloride	mg/l	0.0221	0	.025	88.5	32-159	L572035-12	WG589989
Xylenes, Total	mg/l	0.0655	0	.075	87.4	64-133	L572035-12	WG589989
4-Bromofluorobenzene					98.07	82-120		WG589989
Dibromofluoromethane					102.0	82-126		WG589989
Toluene-d8					103.8	92-112		WG589989
1,1,1,2-Tetrachloroethane	mg/l	0.0268	0	.025	107.	71-130	L572479-01	WG590232
1,1,1-Trichloroethane	mg/l	0.0262	0	.025	105.	58-137	L572479-01	WG590232
1,1,2,2-Tetrachloroethane	mg/l	0.0260	0	.025	104.	64-149	L572479-01	WG590232
1,1,2-Trichloroethane	mg/l	0.0256	0	.025	102.	73-128	L572479-01	WG590232
1,1-Dichloroethane	mg/l	0.0239	0	.025	95.5	58-133	L572479-01	WG590232
1,1-Dichloroethene	mg/l	0.0236	0	.025	94.4	32-152	L572479-01	WG590232
1,1-Dichloropropene	mg/l	0.0246	0	.025	98.2	50-140	L572479-01	WG590232
1,2,3-Trichlorobenzene	mg/l	0.0245	0	.025	97.9	68-135	L572479-01	WG590232
1,2,3-Trichloropropane	mg/l	0.0270	0	.025	108.	74-137	L572479-01	WG590232
1,2,4-Trichlorobenzene	mg/l	0.0245	0	.025	98.0	67-133	L572479-01	WG590232
1,2,4-Trimethylbenzene	mg/l	0.0265	0	.025	106.	62-141	L572479-01	WG590232
1,2-Dibromo-3-Chloropropane	mg/l	0.0238	0	.025	95.1	55-148	L572479-01	WG590232
1,2-Dibromoethane	mg/l	0.0255	0	.025	102.	71-129	L572479-01	WG590232
1,2-Dichlorobenzene	mg/l	0.0246	0	.025	98.6	75-125	L572479-01	WG590232
1,2-Dichloroethane	mg/l	0.0247	0	.025	98.7	59-135	L572479-01	WG590232
1,2-Dichloropropane	mg/l	0.0249	0	.025	99.4	68-126	L572479-01	WG590232
1,3,5-Trimethylbenzene	mg/l	0.0267	0	.025	107.	67-136	L572479-01	WG590232
1,3-Dichlorobenzene	mg/l	0.0269	0	.025	108.	69-131	L572479-01	WG590232
1,3-Dichloropropane	mg/l	0.0245	0	.025	98.0	70-122	L572479-01	WG590232
1,4-Dichlorobenzene	mg/l	0.0247	0	.025	99.0	70-123	L572479-01	WG590232
2,2-Dichloropropane	mg/l	0.0260	0	.025	104.	51-141	L572479-01	WG590232
2-Butanone (MEK)	mg/l	0.0938	0	.125	75.0	51-149	L572479-01	WG590232
2-Chloroethyl vinyl ether	mg/l	0.0154	0	.125	12.3	10-161	L572479-01	WG590232
2-Chlorotoluene	mg/l	0.0263	0	.025	105.	65-133	L572479-01	WG590232
4-Chlorotoluene	mg/l	0.0264	0	.025	105.	67-129	L572479-01	WG590232
4-Methyl-2-pentanone (MIBK)	mg/l	0.121	0	.125	96.7	53-154	L572479-01	WG590232
Acetone	mg/l	0.0648	0	.125	51.8	34-146	L572479-01	WG590232
Acrolein	mg/l	0.108	0	.125	86.4	10-189	L572479-01	WG590232
Acrylonitrile	mg/l	0.113	0	.125	90.7	49-162	L572479-01	WG590232
Benzene	mg/l	0.0233	0	.025	93.1	51-134	L572479-01	WG590232
Bromobenzene	mg/l	0.0257	0	.025	103.	64-130	L572479-01	WG590232
Bromodichloromethane	mg/l	0.0261	0	.025	104.	67-132	L572479-01	WG590232
Bromoform	mg/l	0.0264	0	.025	105.	59-137	L572479-01	WG590232
Bromomethane	mg/l	0.0259	0	.025	104.	23-177	L572479-01	WG590232
Carbon tetrachloride	mg/l	0.0260	0	.025	104.	49-140	L572479-01	WG590232
Chlorobenzene	mg/l	0.0259	0	.025	103.	69-126	L572479-01	WG590232
Chlorodibromomethane	mg/l	0.0262	0	.025	105.	68-130	L572479-01	WG590232
Chloroethane	mg/l	0.0237	0	.025	95.0	32-177	L572479-01	WG590232
Chloroform	mg/l	0.0247	0	.025	98.9	64-130	L572479-01	WG590232
Chloromethane	mg/l	0.0205	0	.025	81.9	27-155	L572479-01	WG590232
cis-1,2-Dichloroethene	mg/l	0.0242	0	.025	96.7	54-137	L572479-01	WG590232
cis-1,3-Dichloropropene	mg/l	0.0252	0	.025	101.	63-127	L572479-01	WG590232
Di-isopropyl ether	mg/l	0.0230	0	.025	91.9	58-133	L572479-01	WG590232
Dibromomethane	mg/l	0.0254	0	.025	102.	68-131	L572479-01	WG590232
Dichlorodifluoromethane	mg/l	0.0221	0	.025	88.4	16-188	L572479-01	WG590232
Ethylbenzene	mg/l	0.0265	0	.025	106.	64-135	L572479-01	WG590232
Hexachloro-1,3-butadiene	mg/l	0.0244	0	.025	97.8	64-140	L572479-01	WG590232
Isopropylbenzene	mg/l	0.0270	0	.025	108.	62-134	L572479-01	WG590232
Methyl tert-butyl ether	mg/l	0.0236	0	.025	94.3	55-136	L572479-01	WG590232
Methylene Chloride	mg/l	0.0223	0	.025	89.1	52-130	L572479-01	WG590232

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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
n-Butylbenzene	mg/l	0.0251	0	.025	100.	62-142	L572479-01	WG590232
n-Propylbenzene	mg/l	0.0266	0	.025	106.	62-137	L572479-01	WG590232
Naphthalene	mg/l	0.0236	0	.025	94.5	65-140	L572479-01	WG590232
p-Isopropyltoluene	mg/l	0.0276	0	.025	110.	64-142	L572479-01	WG590232
sec-Butylbenzene	mg/l	0.0275	0	.025	110.	67-139	L572479-01	WG590232
Styrene	mg/l	0.0256	0	.025	102.	58-152	L572479-01	WG590232
tert-Butylbenzene	mg/l	0.0278	0	.025	111.	66-139	L572479-01	WG590232
Tetrachloroethene	mg/l	0.0264	0	.025	105.	56-139	L572479-01	WG590232
Toluene	mg/l	0.0279	0.00230	.025	102.	61-126	L572479-01	WG590232
trans-1,2-Dichloroethene	mg/l	0.0238	0	.025	95.3	45-137	L572479-01	WG590232
trans-1,3-Dichloropropene	mg/l	0.0257	0	.025	103.	59-130	L572479-01	WG590232
Trichloroethene	mg/l	0.0258	0	.025	103.	40-155	L572479-01	WG590232
Trichlorofluoromethane	mg/l	0.0262	0	.025	105.	35-177	L572479-01	WG590232
Vinyl chloride	mg/l	0.0235	0	.025	93.9	32-159	L572479-01	WG590232
Xylenes, Total	mg/l	0.0783	0	.075	104.	64-133	L572479-01	WG590232
4-Bromofluorobenzene					111.6	82-120		WG590232
Dibromofluoromethane					97.10	82-126		WG590232
Toluene-d8					106.1	92-112		WG590232

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0235	0.0220	94.0	71-130	6.70	20	L572138-20	WG589962
1,1,1-Trichloroethane	mg/l	0.0263	0.0268	105.	58-137	1.99	20	L572138-20	WG589962
1,1,2,2-Tetrachloroethane	mg/l	0.0235	0.0243	93.9	64-149	3.32	20	L572138-20	WG589962
1,1,2-Trichloroethane	mg/l	0.0226	0.0235	90.4	73-128	3.83	20	L572138-20	WG589962
1,1-Dichloroethane	mg/l	0.0239	0.0234	95.7	58-133	2.02	20	L572138-20	WG589962
1,1-Dichloroethene	mg/l	0.0223	0.0223	89.2	32-152	0.0600	20	L572138-20	WG589962
1,1-Dichloropropene	mg/l	0.0237	0.0229	94.8	50-140	3.53	20	L572138-20	WG589962
1,2,3-Trichlorobenzene	mg/l	0.0253	0.0228	101.	68-135	10.4	20	L572138-20	WG589962
1,2,3-Trichloropropane	mg/l	0.0255	0.0251	102.	74-137	1.39	20	L572138-20	WG589962
1,2,4-Trichlorobenzene	mg/l	0.0245	0.0236	97.9	67-133	3.86	20	L572138-20	WG589962
1,2,4-Trimethylbenzene	mg/l	0.0233	0.0226	93.4	62-141	3.15	20	L572138-20	WG589962
1,2-Dibromo-3-Chloropropane	mg/l	0.0250	0.0235	99.9	55-148	5.90	22	L572138-20	WG589962
1,2-Dibromoethane	mg/l	0.0215	0.0217	86.2	71-129	0.670	20	L572138-20	WG589962
1,2-Dichlorobenzene	mg/l	0.0240	0.0230	96.1	75-125	4.60	20	L572138-20	WG589962
1,2-Dichloroethane	mg/l	0.0249	0.0246	99.4	59-135	0.910	20	L572138-20	WG589962
1,2-Dichloropropane	mg/l	0.0245	0.0238	98.2	68-126	3.11	20	L572138-20	WG589962
1,3,5-Trimethylbenzene	mg/l	0.0242	0.0237	96.7	67-136	1.94	20	L572138-20	WG589962
1,3-Dichlorobenzene	mg/l	0.0242	0.0240	96.7	69-131	0.650	20	L572138-20	WG589962
1,3-Dichloropropane	mg/l	0.0214	0.0216	85.5	70-122	1.05	20	L572138-20	WG589962
1,4-Dichlorobenzene	mg/l	0.0240	0.0228	96.0	70-123	5.02	20	L572138-20	WG589962
2,2-Dichloropropane	mg/l	0.0289	0.0288	115.	51-141	0.280	20	L572138-20	WG589962
2-Butanone (MEK)	mg/l	0.132	0.126	105.	51-149	3.92	22	L572138-20	WG589962
2-Chloroethyl vinyl ether	mg/l	0.0117	0.0466	9.34*	10-161	120.*	40	L572138-20	WG589962
2-Chlorotoluene	mg/l	0.0234	0.0231	93.5	65-133	1.15	20	L572138-20	WG589962
4-Chlorotoluene	mg/l	0.0242	0.0235	96.6	67-129	2.80	20	L572138-20	WG589962
4-Methyl-2-pentanone (MIBK)	mg/l	0.140	0.145	112.	53-154	3.63	21	L572138-20	WG589962
Acetone	mg/l	0.131	0.132	105.	34-146	0.550	22	L572138-20	WG589962
Acrolein	mg/l	0.155	0.151	124.	10-189	2.35	30	L572138-20	WG589962
Acrylonitrile	mg/l	0.141	0.141	113.	49-162	0.0500	20	L572138-20	WG589962
Benzene	mg/l	0.0238	0.0227	95.0	51-134	4.43	20	L572138-20	WG589962
Bromobenzene	mg/l	0.0230	0.0220	91.9	64-130	4.45	20	L572138-20	WG589962
Bromodichloromethane	mg/l	0.0255	0.0245	102.	67-132	4.08	20	L572138-20	WG589962
Bromoform	mg/l	0.0240	0.0237	96.0	59-137	1.20	20	L572138-20	WG589962
Bromomethane	mg/l	0.0220	0.0223	87.9	23-177	1.53	21	L572138-20	WG589962
Carbon tetrachloride	mg/l	0.0264	0.0252	106.	49-140	4.73	20	L572138-20	WG589962
Chlorobenzene	mg/l	0.0232	0.0230	92.7	69-126	0.620	20	L572138-20	WG589962
Chlorodibromomethane	mg/l	0.0230	0.0224	91.9	68-130	2.31	20	L572138-20	WG589962

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Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	MSD	Matrix Spike Ref	Duplicate %Rec	Limit	RPD	Limit	Ref Samp	Batch
Chloroethane	mg/l	0.0248	0.0231	99.1	32-177	7.00	21	L572138-20	WG589962
Chloroform	mg/l	0.0255	0.0254	102.	64-130	0.270	20	L572138-20	WG589962
Chloromethane	mg/l	0.0217	0.0212	86.8	27-155	2.08	20	L572138-20	WG589962
cis-1,2-Dichloroethene	mg/l	0.0295	0.0289	97.7	54-137	2.11	20	L572138-20	WG589962
cis-1,3-Dichloropropene	mg/l	0.0239	0.0246	95.5	63-127	3.20	20	L572138-20	WG589962
Di-isopropyl ether	mg/l	0.0256	0.0249	102.	58-133	2.86	20	L572138-20	WG589962
Dibromomethane	mg/l	0.0240	0.0248	95.9	68-131	3.48	20	L572138-20	WG589962
Dichlorodifluoromethane	mg/l	0.0261	0.0255	104.	16-188	2.15	22	L572138-20	WG589962
Ethylbenzene	mg/l	0.0232	0.0239	92.7	64-135	3.04	20	L572138-20	WG589962
Hexachloro-1,3-butadiene	mg/l	0.0232	0.0225	92.8	64-140	3.23	20	L572138-20	WG589962
Isopropylbenzene	mg/l	0.0245	0.0243	98.1	62-134	0.940	20	L572138-20	WG589962
Methyl tert-butyl ether	mg/l	0.0248	0.0242	99.2	55-136	2.46	20	L572138-20	WG589962
Methylene Chloride	mg/l	0.0218	0.0212	87.3	52-130	2.91	20	L572138-20	WG589962
n-Butylbenzene	mg/l	0.0249	0.0247	99.6	62-142	0.850	20	L572138-20	WG589962
n-Propylbenzene	mg/l	0.0234	0.0235	93.7	62-137	0.160	20	L572138-20	WG589962
Naphthalene	mg/l	0.0239	0.0233	95.7	65-140	2.78	20	L572138-20	WG589962
p-Isopropyltoluene	mg/l	0.0248	0.0242	99.3	64-142	2.58	20	L572138-20	WG589962
sec-Butylbenzene	mg/l	0.0245	0.0235	97.9	67-139	4.08	20	L572138-20	WG589962
Styrene	mg/l	0.0237	0.0230	94.8	58-152	3.14	20	L572138-20	WG589962
tert-Butylbenzene	mg/l	0.0250	0.0241	100.	66-139	4.01	20	L572138-20	WG589962
Tetrachloroethene	mg/l	0.0226	0.0217	90.4	56-139	4.01	20	L572138-20	WG589962
Toluene	mg/l	0.0237	0.0238	94.8	61-126	0.210	20	L572138-20	WG589962
trans-1,2-Dichloroethene	mg/l	0.0239	0.0230	88.0	45-137	3.63	20	L572138-20	WG589962
trans-1,3-Dichloropropene	mg/l	0.0253	0.0240	101.	59-130	5.28	20	L572138-20	WG589962
Trichloroethene	mg/l	0.0254	0.0253	97.4	40-155	0.0600	20	L572138-20	WG589962
Trichlorofluoromethane	mg/l	0.0265	0.0264	106.	35-177	0.330	23	L572138-20	WG589962
Vinyl chloride	mg/l	0.0216	0.0215	86.3	32-159	0.480	21	L572138-20	WG589962
Xylenes, Total	mg/l	0.0681	0.0676	90.8	64-133	0.750	20	L572138-20	WG589962
4-Bromofluorobenzene				97.17	82-120				WG589962
Dibromofluoromethane				101.2	82-126				WG589962
Toluene-d8				103.8	92-112				WG589962
1,1,1,2-Tetrachloroethane	mg/l	0.0238	0.0237	95.2	71-130	0.470	20	L572035-12	WG589989
1,1,1-Trichloroethane	mg/l	0.0240	0.0235	96.1	58-137	2.32	20	L572035-12	WG589989
1,1,2,2-Tetrachloroethane	mg/l	0.0234	0.0222	93.8	64-149	5.25	20	L572035-12	WG589989
1,1,2-Trichloroethane	mg/l	0.0239	0.0225	95.5	73-128	5.81	20	L572035-12	WG589989
1,1-Dichloroethane	mg/l	0.0233	0.0226	93.2	58-133	3.21	20	L572035-12	WG589989
1,1-Dichloroethene	mg/l	0.0220	0.0222	88.2	32-152	0.640	20	L572035-12	WG589989
1,1-Dichloropropene	mg/l	0.0239	0.0228	95.7	50-140	4.95	20	L572035-12	WG589989
1,2,3-Trichlorobenzene	mg/l	0.0234	0.0222	93.8	68-135	5.52	20	L572035-12	WG589989
1,2,3-Trichloropropane	mg/l	0.0238	0.0223	95.3	74-137	6.63	20	L572035-12	WG589989
1,2,4-Trichlorobenzene	mg/l	0.0243	0.0231	97.2	67-133	4.86	20	L572035-12	WG589989
1,2,4-Trimethylbenzene	mg/l	0.0227	0.0222	90.7	62-141	2.18	20	L572035-12	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	0.0230	0.0215	92.1	55-148	7.03	22	L572035-12	WG589989
1,2-Dibromoethane	mg/l	0.0251	0.0249	100.	71-129	0.580	20	L572035-12	WG589989
1,2-Dichlorobenzene	mg/l	0.0225	0.0220	90.1	75-125	2.27	20	L572035-12	WG589989
1,2-Dichloroethane	mg/l	0.0237	0.0229	94.8	59-135	3.65	20	L572035-12	WG589989
1,2-Dichloropropane	mg/l	0.0232	0.0226	92.7	68-126	2.51	20	L572035-12	WG589989
1,3,5-Trimethylbenzene	mg/l	0.0234	0.0231	93.4	67-136	1.01	20	L572035-12	WG589989
1,3-Dichlorobenzene	mg/l	0.0234	0.0229	93.6	69-131	2.05	20	L572035-12	WG589989
1,3-Dichloropropane	mg/l	0.0238	0.0235	95.1	70-122	1.18	20	L572035-12	WG589989
1,4-Dichlorobenzene	mg/l	0.0231	0.0223	92.3	70-123	3.33	20	L572035-12	WG589989
2,2-Dichloropropane	mg/l	0.0245	0.0235	97.8	51-141	4.02	20	L572035-12	WG589989
2-Butanone (MEK)	mg/l	0.126	0.109	89.4	51-149	14.6	22	L572035-12	WG589989
2-Chloroethyl vinyl ether	mg/l	0.0164	0.0372	13.1	10-161	77.8*	40	L572035-12	WG589989
2-Chlorotoluene	mg/l	0.0227	0.0225	91.0	65-133	1.10	20	L572035-12	WG589989
4-Chlorotoluene	mg/l	0.0227	0.0223	90.6	67-129	1.49	20	L572035-12	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	0.123	0.114	98.7	53-154	7.87	21	L572035-12	WG589989

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Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Acetone	mg/l	0.108	0.103	86.6	34-146	4.89	22	L572035-12	WG589989
Acrolein	mg/l	0.127	0.116	102.	10-189	8.95	30	L572035-12	WG589989
Acrylonitrile	mg/l	0.122	0.114	97.4	49-162	6.85	20	L572035-12	WG589989
Benzene	mg/l	0.0222	0.0219	88.6	51-134	1.28	20	L572035-12	WG589989
Bromobenzene	mg/l	0.0215	0.0214	86.0	64-130	0.590	20	L572035-12	WG589989
Bromodichloromethane	mg/l	0.0234	0.0230	93.6	67-132	1.80	20	L572035-12	WG589989
Bromoform	mg/l	0.0247	0.0236	98.7	59-137	4.57	20	L572035-12	WG589989
Bromomethane	mg/l	0.0179	0.0187	71.7	23-177	4.22	21	L572035-12	WG589989
Carbon tetrachloride	mg/l	0.0244	0.0226	97.5	49-140	7.49	20	L572035-12	WG589989
Chlorobenzene	mg/l	0.0221	0.0223	88.2	69-126	0.880	20	L572035-12	WG589989
Chlorodibromomethane	mg/l	0.0238	0.0237	95.1	68-130	0.490	20	L572035-12	WG589989
Chloroethane	mg/l	0.0229	0.0231	91.6	32-177	0.920	21	L572035-12	WG589989
Chloroform	mg/l	0.0233	0.0223	93.2	64-130	4.53	20	L572035-12	WG589989
Chloromethane	mg/l	0.0197	0.0188	78.7	27-155	4.29	20	L572035-12	WG589989
cis-1,2-Dichloroethene	mg/l	0.0268	0.0259	92.9	54-137	3.37	20	L572035-12	WG589989
cis-1,3-Dichloropropene	mg/l	0.0238	0.0248	95.3	63-127	4.02	20	L572035-12	WG589989
Di-isopropyl ether	mg/l	0.0240	0.0231	95.9	58-133	3.80	20	L572035-12	WG589989
Dibromomethane	mg/l	0.0264	0.0263	106.	68-131	0.570	20	L572035-12	WG589989
Dichlorodifluoromethane	mg/l	0.0226	0.0215	90.4	16-188	4.80	22	L572035-12	WG589989
Ethylbenzene	mg/l	0.0224	0.0220	89.4	64-135	1.47	20	L572035-12	WG589989
Hexachloro-1,3-butadiene	mg/l	0.0237	0.0233	94.6	64-140	1.64	20	L572035-12	WG589989
Isopropylbenzene	mg/l	0.0241	0.0237	96.6	62-134	1.67	20	L572035-12	WG589989
Methyl tert-butyl ether	mg/l	0.0200	0.0194	79.8	55-136	2.72	20	L572035-12	WG589989
Methylene Chloride	mg/l	0.0223	0.0216	89.1	52-130	3.21	20	L572035-12	WG589989
n-Butylbenzene	mg/l	0.0228	0.0224	91.2	62-142	1.84	20	L572035-12	WG589989
n-Propylbenzene	mg/l	0.0222	0.0218	88.8	62-137	1.89	20	L572035-12	WG589989
Naphthalene	mg/l	0.0236	0.0220	94.4	65-140	6.83	20	L572035-12	WG589989
p-Isopropyltoluene	mg/l	0.0242	0.0238	96.9	64-142	1.89	20	L572035-12	WG589989
sec-Butylbenzene	mg/l	0.0235	0.0232	93.9	67-139	1.13	20	L572035-12	WG589989
Styrene	mg/l	0.0216	0.0212	86.3	58-152	1.60	20	L572035-12	WG589989
tert-Butylbenzene	mg/l	0.0238	0.0234	95.1	66-139	1.38	20	L572035-12	WG589989
Tetrachloroethene	mg/l	0.0236	0.0233	94.6	56-139	1.37	20	L572035-12	WG589989
Toluene	mg/l	0.0228	0.0221	91.3	61-126	3.03	20	L572035-12	WG589989
trans-1,2-Dichloroethene	mg/l	0.0238	0.0223	95.1	45-137	6.33	20	L572035-12	WG589989
trans-1,3-Dichloropropene	mg/l	0.0249	0.0245	99.6	59-130	1.57	20	L572035-12	WG589989
Trichloroethene	mg/l	0.0237	0.0232	94.7	40-155	2.27	20	L572035-12	WG589989
Trichlorofluoromethane	mg/l	0.0269	0.0261	108.	35-177	3.13	23	L572035-12	WG589989
Vinyl chloride	mg/l	0.0228	0.0221	91.3	32-159	3.11	21	L572035-12	WG589989
Xylenes, Total	mg/l	0.0666	0.0655	88.7	64-133	1.57	20	L572035-12	WG589989
4-Bromofluorobenzene				97.24	82-120				WG589989
Dibromofluoromethane				103.1	82-126				WG589989
Toluene-d8				102.3	92-112				WG589989
1,1,1,2-Tetrachloroethane	mg/l	0.0266	0.0268	106.	71-130	0.790	20	L572479-01	WG590232
1,1,1-Trichloroethane	mg/l	0.0261	0.0262	104.	58-137	0.450	20	L572479-01	WG590232
1,1,2,2-Tetrachloroethane	mg/l	0.0254	0.0260	102.	64-149	2.36	20	L572479-01	WG590232
1,1,2-Trichloroethane	mg/l	0.0249	0.0256	99.5	73-128	2.99	20	L572479-01	WG590232
1,1-Dichloroethane	mg/l	0.0239	0.0239	95.4	58-133	0.0400	20	L572479-01	WG590232
1,1-Dichloroethene	mg/l	0.0236	0.0236	94.3	32-152	0.0400	20	L572479-01	WG590232
1,1-Dichloropropene	mg/l	0.0238	0.0246	95.1	50-140	3.19	20	L572479-01	WG590232
1,2,3-Trichlorobenzene	mg/l	0.0246	0.0245	98.3	68-135	0.490	20	L572479-01	WG590232
1,2,3-Trichloropropane	mg/l	0.0260	0.0270	104.	74-137	3.95	20	L572479-01	WG590232
1,2,4-Trichlorobenzene	mg/l	0.0244	0.0245	97.5	67-133	0.460	20	L572479-01	WG590232
1,2,4-Trimethylbenzene	mg/l	0.0264	0.0265	105.	62-141	0.620	20	L572479-01	WG590232
1,2-Dibromo-3-Chloropropane	mg/l	0.0229	0.0238	91.6	55-148	3.70	22	L572479-01	WG590232
1,2-Dibromoethane	mg/l	0.0248	0.0255	99.1	71-129	2.74	20	L572479-01	WG590232
1,2-Dichlorobenzene	mg/l	0.0244	0.0246	97.6	75-125	1.06	20	L572479-01	WG590232
1,2-Dichloroethane	mg/l	0.0241	0.0247	96.5	59-135	2.27	20	L572479-01	WG590232

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572138

April 30, 2012

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,2-Dichloropropane	mg/l	0.0245	0.0249	97.8	68-126	1.62	20	L572479-01	WG590232
1,3,5-Trimethylbenzene	mg/l	0.0265	0.0267	106.	67-136	1.11	20	L572479-01	WG590232
1,3-Dichlorobenzene	mg/l	0.0265	0.0269	106.	69-131	1.54	20	L572479-01	WG590232
1,3-Dichloropropane	mg/l	0.0240	0.0245	95.8	70-122	2.16	20	L572479-01	WG590232
1,4-Dichlorobenzene	mg/l	0.0238	0.0247	95.4	70-123	3.72	20	L572479-01	WG590232
2,2-Dichloropropane	mg/l	0.0267	0.0260	107.	51-141	2.34	20	L572479-01	WG590232
2-Butanone (MEK)	mg/l	0.0922	0.0938	73.8	51-149	1.67	22	L572479-01	WG590232
2-Chloroethyl vinyl ether	mg/l	0.00669	0.0154	5.35*	10-161	78.9*	40	L572479-01	WG590232
2-Chlorotoluene	mg/l	0.0257	0.0263	103.	65-133	2.45	20	L572479-01	WG590232
4-Chlorotoluene	mg/l	0.0258	0.0264	103.	67-129	2.20	20	L572479-01	WG590232
4-Methyl-2-pentanone (MIBK)	mg/l	0.121	0.121	96.6	53-154	0.150	21	L572479-01	WG590232
Acetone	mg/l	0.0646	0.0648	51.7	34-146	0.240	22	L572479-01	WG590232
Acrolein	mg/l	0.108	0.108	86.2	10-189	0.270	30	L572479-01	WG590232
Acrylonitrile	mg/l	0.114	0.113	91.0	49-162	0.300	20	L572479-01	WG590232
Benzene	mg/l	0.0228	0.0233	91.2	51-134	2.04	20	L572479-01	WG590232
Bromobenzene	mg/l	0.0252	0.0257	101.	64-130	2.13	20	L572479-01	WG590232
Bromodichloromethane	mg/l	0.0256	0.0261	102.	67-132	1.84	20	L572479-01	WG590232
Bromoform	mg/l	0.0256	0.0264	102.	59-137	3.08	20	L572479-01	WG590232
Bromomethane	mg/l	0.0258	0.0259	103.	23-177	0.580	21	L572479-01	WG590232
Carbon tetrachloride	mg/l	0.0255	0.0260	102.	49-140	1.84	20	L572479-01	WG590232
Chlorobenzene	mg/l	0.0253	0.0259	101.	69-126	2.29	20	L572479-01	WG590232
Chlorodibromomethane	mg/l	0.0255	0.0262	102.	68-130	2.81	20	L572479-01	WG590232
Chloroethane	mg/l	0.0236	0.0237	94.4	32-177	0.610	21	L572479-01	WG590232
Chloroform	mg/l	0.0247	0.0247	98.6	64-130	0.290	20	L572479-01	WG590232
Chloromethane	mg/l	0.0204	0.0205	81.6	27-155	0.290	20	L572479-01	WG590232
cis-1,2-Dichloroethene	mg/l	0.0237	0.0242	94.6	54-137	2.13	20	L572479-01	WG590232
cis-1,3-Dichloropropene	mg/l	0.0245	0.0252	98.0	63-127	2.97	20	L572479-01	WG590232
Di-isopropyl ether	mg/l	0.0230	0.0230	92.0	58-133	0.0500	20	L572479-01	WG590232
Dibromomethane	mg/l	0.0249	0.0254	99.8	68-131	1.75	20	L572479-01	WG590232
Dichlorodifluoromethane	mg/l	0.0220	0.0221	88.0	16-188	0.390	22	L572479-01	WG590232
Ethylbenzene	mg/l	0.0257	0.0265	103.	64-135	3.38	20	L572479-01	WG590232
Hexachloro-1,3-butadiene	mg/l	0.0248	0.0244	99.3	64-140	1.57	20	L572479-01	WG590232
Isopropylbenzene	mg/l	0.0265	0.0270	106.	62-134	1.83	20	L572479-01	WG590232
Methyl tert-butyl ether	mg/l	0.0240	0.0236	96.0	55-136	1.70	20	L572479-01	WG590232
Methylene Chloride	mg/l	0.0228	0.0223	91.2	52-130	2.32	20	L572479-01	WG590232
n-Butylbenzene	mg/l	0.0248	0.0251	99.1	62-142	1.40	20	L572479-01	WG590232
n-Propylbenzene	mg/l	0.0260	0.0266	104.	62-137	2.15	20	L572479-01	WG590232
Naphthalene	mg/l	0.0237	0.0236	94.9	65-140	0.460	20	L572479-01	WG590232
p-Isopropyltoluene	mg/l	0.0274	0.0276	110.	64-142	0.670	20	L572479-01	WG590232
sec-Butylbenzene	mg/l	0.0272	0.0275	109.	67-139	0.920	20	L572479-01	WG590232
Styrene	mg/l	0.0250	0.0256	100.	58-152	2.29	20	L572479-01	WG590232
tert-Butylbenzene	mg/l	0.0273	0.0278	109.	66-139	1.88	20	L572479-01	WG590232
Tetrachloroethene	mg/l	0.0259	0.0264	103.	56-139	1.87	20	L572479-01	WG590232
Toluene	mg/l	0.0273	0.0279	99.8	61-126	2.34	20	L572479-01	WG590232
trans-1,2-Dichloroethene	mg/l	0.0235	0.0238	94.1	45-137	1.31	20	L572479-01	WG590232
trans-1,3-Dichloropropene	mg/l	0.0249	0.0257	99.5	59-130	3.30	20	L572479-01	WG590232
Trichloroethene	mg/l	0.0256	0.0258	102.	40-155	0.770	20	L572479-01	WG590232
Trichlorofluoromethane	mg/l	0.0259	0.0262	104.	35-177	0.860	23	L572479-01	WG590232
Vinyl chloride	mg/l	0.0232	0.0235	92.8	32-159	1.22	21	L572479-01	WG590232
Xylenes, Total	mg/l	0.0769	0.0783	102.	64-133	1.78	20	L572479-01	WG590232
4-Bromofluorobenzene				110.6	82-120				WG590232
Dibromofluoromethane				99.02	82-126				WG590232
Toluene-d8				105.9	92-112				WG590232

Batch number /Run number / Sample number cross reference

WG589962: R2147794: L572138-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 20 21 22
WG589989: R2147833: L572138-23
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report
Level II

L572138

April 30, 2012

WG590232: R2148233: L572138-09 11 13 15 19

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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April 30, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

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Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

Report Summary

Monday April 30, 2012

Report Number: L572035
Samples Received: 04/26/12
Client Project: 11259

Description: Navy EMAC Millington, TN

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Alan Harvill

T. Alan Harvill , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-01

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 14:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	93.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-01

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 14:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	3.2	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	98.6		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	96.1		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-02

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 14:53

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	78.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-02

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 14:53

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	2.9	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	101.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	96.2		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-03

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 15:37

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	75.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-03

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 15:37

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	3.0	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	99.4		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	97.7		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-04

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 16:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	4.6	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-04

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 50FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 16:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	14.	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	99.7		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-05

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : DUP 2 LF

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	4.1	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-05

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : DUP 2 LF

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	12.	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	99.4		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	99.4		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	97.3		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-06

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 16:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	86.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-06

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 16:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	3.4	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	95.8		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	98.3		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-07

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 17:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	4.1	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-07

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 60FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 17:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	97.8		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	92.0		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30, 2012

ESC Sample # : L572035-08

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 18:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	90.	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30, 2012

ESC Sample # : L572035-08

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 18:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	3.0	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	101.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	107.		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30, 2012

ESC Sample # : L572035-09

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 90FT MS

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 18:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.

Volatile Organics Matrix Spike
See QC Report for % Rec. and RPD

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-10

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 24 LF 90FT MSD

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 18:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.

Volatile Organics MSD
See QC Report for % Rec and RPD

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-11

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 18:47

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	4.2	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-11

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 70FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 18:47

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	99.4		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	96.2		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-12

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 19:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	3.6	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-12

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 80FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 19:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	14.	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	102.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	96.6		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
.
Reported: 04/30/12 09:05 Printed: 04/30/12 09:06

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-13

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 20:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/27/12	1
Acrolein	BDL	50.	ug/l	8260B	04/27/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/27/12	1
Benzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/27/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/27/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/27/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/27/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/27/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/27/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/27/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/27/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,2-Dichloroethene	3.7	1.0	ug/l	8260B	04/27/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/27/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/27/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/27/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 30,2012

ESC Sample # : L572035-13

Date Received : April 26, 2012
Description : Navy EMAC Millington, TN

Site ID : NSA MIDSOUTH

Sample ID : 39 G 23 LF 90FT

Project # : 11259

Collected By : John Hall
Collection Date : 04/25/12 20:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	10.	10.	ug/l	8260B	04/27/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/27/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/27/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/27/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/27/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Styrene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Toluene	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/27/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/27/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/27/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/27/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/27/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/27/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/27/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/27/12	1
Dibromofluoromethane	104.		% Rec.	8260B	04/27/12	1
4-Bromofluorobenzene	91.3		% Rec.	8260B	04/27/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 04/30/12 09:05 Printed: 04/30/12 09:06

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L572035-08	WG589869	SAMP	Acetone	R2147793	J4J5
L572035-12	WG589989	SAMP	2-Chloroethyl vinyl ether	R2147833	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
04/30/12 at 09:06:15

TSR Signing Reports: 364
R3 - Rush: Two Day

Sample: L572035-01 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-02 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-03 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-04 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-05 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-06 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-07 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-08 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-09 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-10 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-11 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-12 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

Sample: L572035-13 Account: LEERYAN Received: 04/26/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/30/12 09:05

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589841	04/26/12 20:07
1,1,1-Trichloroethane	< .001	mg/l			WG589841	04/26/12 20:07
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589841	04/26/12 20:07
1,1,2-Trichloroethane	< .001	mg/l			WG589841	04/26/12 20:07
1,1-Dichloroethane	< .001	mg/l			WG589841	04/26/12 20:07
1,1-Dichloroethene	< .001	mg/l			WG589841	04/26/12 20:07
1,1-Dichloropropene	< .001	mg/l			WG589841	04/26/12 20:07
1,2,3-Trichlorobenzene	< .001	mg/l			WG589841	04/26/12 20:07
1,2,3-Trichloropropane	< .001	mg/l			WG589841	04/26/12 20:07
1,2,4-Trichlorobenzene	< .001	mg/l			WG589841	04/26/12 20:07
1,2,4-Trimethylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589841	04/26/12 20:07
1,2-Dibromoethane	< .001	mg/l			WG589841	04/26/12 20:07
1,2-Dichlorobenzene	< .001	mg/l			WG589841	04/26/12 20:07
1,2-Dichloroethane	< .001	mg/l			WG589841	04/26/12 20:07
1,2-Dichloropropane	< .001	mg/l			WG589841	04/26/12 20:07
1,3,5-Trimethylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
1,3-Dichlorobenzene	< .001	mg/l			WG589841	04/26/12 20:07
1,3-Dichloropropane	< .001	mg/l			WG589841	04/26/12 20:07
1,4-Dichlorobenzene	< .001	mg/l			WG589841	04/26/12 20:07
2,2-Dichloropropane	< .001	mg/l			WG589841	04/26/12 20:07
2-Butanone (MEK)	< .01	mg/l			WG589841	04/26/12 20:07
2-Chloroethyl vinyl ether	< .05	mg/l			WG589841	04/26/12 20:07
2-Chlorotoluene	< .001	mg/l			WG589841	04/26/12 20:07
4-Chlorotoluene	< .001	mg/l			WG589841	04/26/12 20:07
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589841	04/26/12 20:07
Acetone	< .05	mg/l			WG589841	04/26/12 20:07
Acrolein	< .025	mg/l			WG589841	04/26/12 20:07
Acrylonitrile	< .01	mg/l			WG589841	04/26/12 20:07
Benzene	< .001	mg/l			WG589841	04/26/12 20:07
Bromobenzene	< .001	mg/l			WG589841	04/26/12 20:07
Bromodichloromethane	< .001	mg/l			WG589841	04/26/12 20:07
Bromoform	< .001	mg/l			WG589841	04/26/12 20:07
Bromomethane	< .005	mg/l			WG589841	04/26/12 20:07
Carbon tetrachloride	< .001	mg/l			WG589841	04/26/12 20:07
Chlorobenzene	< .001	mg/l			WG589841	04/26/12 20:07
Chlorodibromomethane	< .001	mg/l			WG589841	04/26/12 20:07
Chloroethane	< .005	mg/l			WG589841	04/26/12 20:07
Chloroform	< .005	mg/l			WG589841	04/26/12 20:07
Chloromethane	< .0025	mg/l			WG589841	04/26/12 20:07
cis-1,2-Dichloroethene	< .001	mg/l			WG589841	04/26/12 20:07
cis-1,3-Dichloropropene	< .001	mg/l			WG589841	04/26/12 20:07
Di-isopropyl ether	< .001	mg/l			WG589841	04/26/12 20:07
Dibromomethane	< .001	mg/l			WG589841	04/26/12 20:07
Dichlorodifluoromethane	< .005	mg/l			WG589841	04/26/12 20:07
Ethylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
Hexachloro-1,3-butadiene	< .001	mg/l			WG589841	04/26/12 20:07
Isopropylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
Methyl tert-butyl ether	< .001	mg/l			WG589841	04/26/12 20:07
Methylene Chloride	< .005	mg/l			WG589841	04/26/12 20:07
n-Butylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
n-Propylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
Naphthalene	< .005	mg/l			WG589841	04/26/12 20:07
p-Isopropyltoluene	< .001	mg/l			WG589841	04/26/12 20:07
sec-Butylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
Styrene	< .001	mg/l			WG589841	04/26/12 20:07
tert-Butylbenzene	< .001	mg/l			WG589841	04/26/12 20:07
Tetrachloroethene	< .001	mg/l			WG589841	04/26/12 20:07
Toluene	< .005	mg/l			WG589841	04/26/12 20:07

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
trans-1,2-Dichloroethene	< .001	mg/l			WG589841	04/26/12 20:07
trans-1,3-Dichloropropene	< .001	mg/l			WG589841	04/26/12 20:07
Trichloroethene	< .001	mg/l			WG589841	04/26/12 20:07
Trichlorofluoromethane	< .005	mg/l			WG589841	04/26/12 20:07
Vinyl chloride	< .001	mg/l			WG589841	04/26/12 20:07
Xylenes, Total	< .003	mg/l			WG589841	04/26/12 20:07
4-Bromofluorobenzene		% Rec.	94.77	82-120	WG589841	04/26/12 20:07
Dibromofluoromethane		% Rec.	95.56	82-126	WG589841	04/26/12 20:07
Toluene-d8		% Rec.	101.1	92-112	WG589841	04/26/12 20:07
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589869	04/27/12 01:17
1,1,1-Trichloroethane	< .001	mg/l			WG589869	04/27/12 01:17
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589869	04/27/12 01:17
1,1,2-Trichloroethane	< .001	mg/l			WG589869	04/27/12 01:17
1,1-Dichloroethane	< .001	mg/l			WG589869	04/27/12 01:17
1,1-Dichloroethene	< .001	mg/l			WG589869	04/27/12 01:17
1,1-Dichloropropene	< .001	mg/l			WG589869	04/27/12 01:17
1,2,3-Trichlorobenzene	< .001	mg/l			WG589869	04/27/12 01:17
1,2,3-Trichloropropane	< .001	mg/l			WG589869	04/27/12 01:17
1,2,4-Trichlorobenzene	< .001	mg/l			WG589869	04/27/12 01:17
1,2,4-Trimethylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589869	04/27/12 01:17
1,2-Dibromoethane	< .001	mg/l			WG589869	04/27/12 01:17
1,2-Dichlorobenzene	< .001	mg/l			WG589869	04/27/12 01:17
1,2-Dichloroethane	< .001	mg/l			WG589869	04/27/12 01:17
1,2-Dichloropropane	< .001	mg/l			WG589869	04/27/12 01:17
1,3,5-Trimethylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
1,3-Dichlorobenzene	< .001	mg/l			WG589869	04/27/12 01:17
1,3-Dichloropropane	< .001	mg/l			WG589869	04/27/12 01:17
1,4-Dichlorobenzene	< .001	mg/l			WG589869	04/27/12 01:17
2,2-Dichloropropane	< .001	mg/l			WG589869	04/27/12 01:17
2-Butanone (MEK)	< .01	mg/l			WG589869	04/27/12 01:17
2-Chloroethyl vinyl ether	< .05	mg/l			WG589869	04/27/12 01:17
2-Chlorotoluene	< .001	mg/l			WG589869	04/27/12 01:17
4-Chlorotoluene	< .001	mg/l			WG589869	04/27/12 01:17
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589869	04/27/12 01:17
Acetone	< .05	mg/l			WG589869	04/27/12 01:17
Acrolein	< .025	mg/l			WG589869	04/27/12 01:17
Acrylonitrile	< .01	mg/l			WG589869	04/27/12 01:17
Benzene	< .001	mg/l			WG589869	04/27/12 01:17
Bromobenzene	< .001	mg/l			WG589869	04/27/12 01:17
Bromodichloromethane	< .001	mg/l			WG589869	04/27/12 01:17
Bromoform	< .001	mg/l			WG589869	04/27/12 01:17
Bromomethane	< .005	mg/l			WG589869	04/27/12 01:17
Carbon tetrachloride	< .001	mg/l			WG589869	04/27/12 01:17
Chlorobenzene	< .001	mg/l			WG589869	04/27/12 01:17
Chlorodibromomethane	< .001	mg/l			WG589869	04/27/12 01:17
Chloroethane	< .005	mg/l			WG589869	04/27/12 01:17
Chloroform	< .005	mg/l			WG589869	04/27/12 01:17
Chloromethane	< .0025	mg/l			WG589869	04/27/12 01:17
cis-1,2-Dichloroethene	< .001	mg/l			WG589869	04/27/12 01:17
cis-1,3-Dichloropropene	< .001	mg/l			WG589869	04/27/12 01:17
Di-isopropyl ether	< .001	mg/l			WG589869	04/27/12 01:17
Dibromomethane	< .001	mg/l			WG589869	04/27/12 01:17
Dichlorodifluoromethane	< .005	mg/l			WG589869	04/27/12 01:17
Ethylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
Hexachloro-1,3-butadiene	< .001	mg/l			WG589869	04/27/12 01:17
Isopropylbenzene	< .001	mg/l			WG589869	04/27/12 01:17

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Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Methyl tert-butyl ether	< .001	mg/l			WG589869	04/27/12 01:17
Methylene Chloride	< .005	mg/l			WG589869	04/27/12 01:17
n-Butylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
n-Propylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
Naphthalene	< .005	mg/l			WG589869	04/27/12 01:17
p-Isopropyltoluene	< .001	mg/l			WG589869	04/27/12 01:17
sec-Butylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
Styrene	< .001	mg/l			WG589869	04/27/12 01:17
tert-Butylbenzene	< .001	mg/l			WG589869	04/27/12 01:17
Tetrachloroethene	< .001	mg/l			WG589869	04/27/12 01:17
Toluene	< .005	mg/l			WG589869	04/27/12 01:17
trans-1,2-Dichloroethene	< .001	mg/l			WG589869	04/27/12 01:17
trans-1,3-Dichloropropene	< .001	mg/l			WG589869	04/27/12 01:17
Trichloroethene	< .001	mg/l			WG589869	04/27/12 01:17
Trichlorofluoromethane	< .005	mg/l			WG589869	04/27/12 01:17
Vinyl chloride	< .001	mg/l			WG589869	04/27/12 01:17
Xylenes, Total	< .003	mg/l			WG589869	04/27/12 01:17
4-Bromofluorobenzene		% Rec.	99.36	82-120	WG589869	04/27/12 01:17
Dibromofluoromethane		% Rec.	101.2	82-126	WG589869	04/27/12 01:17
Toluene-d8		% Rec.	103.1	92-112	WG589869	04/27/12 01:17
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1,1-Trichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1,2-Trichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1-Dichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,1-Dichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
1,1-Dichloropropene	< .001	mg/l			WG589989	04/27/12 13:56
1,2,3-Trichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2,3-Trichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
1,2,4-Trichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2,4-Trimethylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589989	04/27/12 13:56
1,2-Dibromoethane	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dichloroethane	< .001	mg/l			WG589989	04/27/12 13:56
1,2-Dichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
1,3,5-Trimethylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,3-Dichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
1,3-Dichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
1,4-Dichlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
2,2-Dichloropropane	< .001	mg/l			WG589989	04/27/12 13:56
2-Butanone (MEK)	< .01	mg/l			WG589989	04/27/12 13:56
2-Chloroethyl vinyl ether	< .05	mg/l			WG589989	04/27/12 13:56
2-Chlorotoluene	< .001	mg/l			WG589989	04/27/12 13:56
4-Chlorotoluene	< .001	mg/l			WG589989	04/27/12 13:56
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589989	04/27/12 13:56
Acetone	< .05	mg/l			WG589989	04/27/12 13:56
Acrolein	< .025	mg/l			WG589989	04/27/12 13:56
Acrylonitrile	< .01	mg/l			WG589989	04/27/12 13:56
Benzene	< .001	mg/l			WG589989	04/27/12 13:56
Bromobenzene	< .001	mg/l			WG589989	04/27/12 13:56
Bromodichloromethane	< .001	mg/l			WG589989	04/27/12 13:56
Bromoform	< .001	mg/l			WG589989	04/27/12 13:56
Bromomethane	< .005	mg/l			WG589989	04/27/12 13:56
Carbon tetrachloride	< .001	mg/l			WG589989	04/27/12 13:56
Chlorobenzene	< .001	mg/l			WG589989	04/27/12 13:56
Chlorodibromomethane	< .001	mg/l			WG589989	04/27/12 13:56

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Quality Assurance Report
Level II

L572035

April 30, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chloroethane	< .005	mg/l			WG589989	04/27/12 13:56
Chloroform	< .005	mg/l			WG589989	04/27/12 13:56
Chloromethane	< .0025	mg/l			WG589989	04/27/12 13:56
cis-1,2-Dichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
cis-1,3-Dichloropropene	< .001	mg/l			WG589989	04/27/12 13:56
Di-isopropyl ether	< .001	mg/l			WG589989	04/27/12 13:56
Dibromomethane	< .001	mg/l			WG589989	04/27/12 13:56
Dichlorodifluoromethane	< .005	mg/l			WG589989	04/27/12 13:56
Ethylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Hexachloro-1,3-butadiene	< .001	mg/l			WG589989	04/27/12 13:56
Isopropylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Methyl tert-butyl ether	< .001	mg/l			WG589989	04/27/12 13:56
Methylene Chloride	< .005	mg/l			WG589989	04/27/12 13:56
n-Butylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
n-Propylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Naphthalene	< .005	mg/l			WG589989	04/27/12 13:56
p-Isopropyltoluene	< .001	mg/l			WG589989	04/27/12 13:56
sec-Butylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Styrene	< .001	mg/l			WG589989	04/27/12 13:56
tert-Butylbenzene	< .001	mg/l			WG589989	04/27/12 13:56
Tetrachloroethene	< .001	mg/l			WG589989	04/27/12 13:56
Toluene	< .005	mg/l			WG589989	04/27/12 13:56
trans-1,2-Dichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
trans-1,3-Dichloropropene	< .001	mg/l			WG589989	04/27/12 13:56
Trichloroethene	< .001	mg/l			WG589989	04/27/12 13:56
Trichlorofluoromethane	< .005	mg/l			WG589989	04/27/12 13:56
Vinyl chloride	< .001	mg/l			WG589989	04/27/12 13:56
Xylenes, Total	< .003	mg/l			WG589989	04/27/12 13:56
4-Bromofluorobenzene		% Rec.	93.72	82-120	WG589989	04/27/12 13:56
Dibromofluoromethane		% Rec.	103.2	82-126	WG589989	04/27/12 13:56
Toluene-d8		% Rec.	101.8	92-112	WG589989	04/27/12 13:56

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0225	89.9	77-128	WG589841
1,1,1-Trichloroethane	mg/l	.025	0.0215	86.1	71-126	WG589841
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0196	78.4	78-130	WG589841
1,1,2-Trichloroethane	mg/l	.025	0.0211	84.6	81-121	WG589841
1,1-Dichloroethane	mg/l	.025	0.0213	85.2	73-123	WG589841
1,1-Dichloroethene	mg/l	.025	0.0213	85.1	54-134	WG589841
1,1-Dichloropropene	mg/l	.025	0.0209	83.5	67-127	WG589841
1,2,3-Trichlorobenzene	mg/l	.025	0.0208	83.3	77-130	WG589841
1,2,3-Trichloropropane	mg/l	.025	0.0219	87.5	68-130	WG589841
1,2,4-Trichlorobenzene	mg/l	.025	0.0231	92.3	76-127	WG589841
1,2,4-Trimethylbenzene	mg/l	.025	0.0231	92.5	77-129	WG589841
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0183	73.1	55-142	WG589841
1,2-Dibromoethane	mg/l	.025	0.0208	83.3	78-124	WG589841
1,2-Dichlorobenzene	mg/l	.025	0.0224	89.5	82-121	WG589841
1,2-Dichloroethane	mg/l	.025	0.0197	78.6	69-128	WG589841
1,2-Dichloropropane	mg/l	.025	0.0215	86.0	77-121	WG589841
1,3,5-Trimethylbenzene	mg/l	.025	0.0235	93.8	78-127	WG589841
1,3-Dichlorobenzene	mg/l	.025	0.0233	93.2	77-127	WG589841
1,3-Dichloropropane	mg/l	.025	0.0215	86.0	78-117	WG589841
1,4-Dichlorobenzene	mg/l	.025	0.0225	89.8	79-117	WG589841
2,2-Dichloropropane	mg/l	.025	0.0219	87.5	63-130	WG589841
2-Butanone (MEK)	mg/l	.125	0.115	91.8	58-144	WG589841
2-Chloroethyl vinyl ether	mg/l	.125	0.107	85.7	26-172	WG589841
2-Chlorotoluene	mg/l	.025	0.0226	90.5	78-123	WG589841

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Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
4-Chlorotoluene	mg/l	.025	0.0230	92.1	78-122	WG589841
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.0965	77.2	58-147	WG589841
Acetone	mg/l	.125	0.134	107.	49-153	WG589841
Acrolein	mg/l	.125	0.100	80.1	10-181	WG589841
Acrylonitrile	mg/l	.125	0.0938	75.0	53-153	WG589841
Benzene	mg/l	.025	0.0213	85.2	72-119	WG589841
Bromobenzene	mg/l	.025	0.0222	88.7	76-121	WG589841
Bromodichloromethane	mg/l	.025	0.0207	82.8	75-127	WG589841
Bromoform	mg/l	.025	0.0202	80.9	61-136	WG589841
Bromomethane	mg/l	.025	0.0231	92.2	42-172	WG589841
Carbon tetrachloride	mg/l	.025	0.0218	87.1	63-129	WG589841
Chlorobenzene	mg/l	.025	0.0235	94.0	78-123	WG589841
Chlorodibromomethane	mg/l	.025	0.0213	85.4	73-128	WG589841
Chloroethane	mg/l	.025	0.0240	96.1	52-164	WG589841
Chloroform	mg/l	.025	0.0218	87.1	76-122	WG589841
Chloromethane	mg/l	.025	0.0203	81.2	50-141	WG589841
cis-1,2-Dichloroethene	mg/l	.025	0.0212	84.7	75-121	WG589841
cis-1,3-Dichloropropene	mg/l	.025	0.0209	83.5	74-124	WG589841
Di-isopropyl ether	mg/l	.025	0.0204	81.5	66-129	WG589841
Dibromomethane	mg/l	.025	0.0211	84.3	77-124	WG589841
Dichlorodifluoromethane	mg/l	.025	0.0209	83.7	33-173	WG589841
Ethylbenzene	mg/l	.025	0.0234	93.6	77-124	WG589841
Hexachloro-1,3-butadiene	mg/l	.025	0.0226	90.4	71-134	WG589841
Isopropylbenzene	mg/l	.025	0.0249	99.7	74-126	WG589841
Methyl tert-butyl ether	mg/l	.025	0.0196	78.3	67-127	WG589841
Methylene Chloride	mg/l	.025	0.0195	77.9	67-122	WG589841
n-Butylbenzene	mg/l	.025	0.0239	95.7	74-130	WG589841
n-Propylbenzene	mg/l	.025	0.0238	95.1	77-125	WG589841
Naphthalene	mg/l	.025	0.0186	74.3	70-134	WG589841
p-Isopropyltoluene	mg/l	.025	0.0237	94.9	77-132	WG589841
sec-Butylbenzene	mg/l	.025	0.0240	95.8	77-130	WG589841
Styrene	mg/l	.025	0.0225	90.0	69-145	WG589841
tert-Butylbenzene	mg/l	.025	0.0241	96.5	76-131	WG589841
Tetrachloroethene	mg/l	.025	0.0236	94.2	69-131	WG589841
Toluene	mg/l	.025	0.0215	86.0	75-114	WG589841
trans-1,2-Dichloroethene	mg/l	.025	0.0212	84.9	63-127	WG589841
trans-1,3-Dichloropropene	mg/l	.025	0.0213	85.1	69-124	WG589841
Trichloroethene	mg/l	.025	0.0225	90.0	69-131	WG589841
Trichlorofluoromethane	mg/l	.025	0.0227	90.8	53-161	WG589841
Vinyl chloride	mg/l	.025	0.0215	86.1	55-142	WG589841
Xylenes, Total	mg/l	.075	0.0701	93.5	77-123	WG589841
4-Bromofluorobenzene				99.37	82-120	WG589841
Dibromofluoromethane				94.88	82-126	WG589841
Toluene-d8				101.1	92-112	WG589841
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0246	98.5	77-128	WG589869
1,1,1-Trichloroethane	mg/l	.025	0.0268	107.	71-126	WG589869
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0240	95.9	78-130	WG589869
1,1,2-Trichloroethane	mg/l	.025	0.0255	102.	81-121	WG589869
1,1-Dichloroethane	mg/l	.025	0.0247	98.8	73-123	WG589869
1,1-Dichloroethene	mg/l	.025	0.0250	99.9	54-134	WG589869
1,1-Dichloropropene	mg/l	.025	0.0249	99.6	67-127	WG589869
1,2,3-Trichlorobenzene	mg/l	.025	0.0248	99.1	77-130	WG589869
1,2,3-Trichloropropane	mg/l	.025	0.0248	99.0	68-130	WG589869
1,2,4-Trichlorobenzene	mg/l	.025	0.0250	100.	76-127	WG589869
1,2,4-Trimethylbenzene	mg/l	.025	0.0259	104.	77-129	WG589869
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0217	86.6	55-142	WG589869
1,2-Dibromoethane	mg/l	.025	0.0240	95.8	78-124	WG589869

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Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
1,2-Dichlorobenzene	mg/l	.025	0.0244	97.8	82-121	WG589869
1,2-Dichloroethane	mg/l	.025	0.0236	94.3	69-128	WG589869
1,2-Dichloropropane	mg/l	.025	0.0233	93.3	77-121	WG589869
1,3,5-Trimethylbenzene	mg/l	.025	0.0273	109.	78-127	WG589869
1,3-Dichlorobenzene	mg/l	.025	0.0269	108.	77-127	WG589869
1,3-Dichloropropane	mg/l	.025	0.0236	94.3	78-117	WG589869
1,4-Dichlorobenzene	mg/l	.025	0.0244	97.8	79-117	WG589869
2,2-Dichloropropane	mg/l	.025	0.0274	110.	63-130	WG589869
2-Butanone (MEK)	mg/l	.125	0.143	114.	58-144	WG589869
2-Chloroethyl vinyl ether	mg/l	.125	0.116	93.0	26-172	WG589869
2-Chlorotoluene	mg/l	.025	0.0262	105.	78-123	WG589869
4-Chlorotoluene	mg/l	.025	0.0261	104.	78-122	WG589869
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.123	98.3	58-147	WG589869
Acetone	mg/l	.125	0.177	141.	49-153	WG589869
Acrolein	mg/l	.125	0.110	88.4	10-181	WG589869
Acrylonitrile	mg/l	.125	0.119	95.2	53-153	WG589869
Benzene	mg/l	.025	0.0248	99.2	72-119	WG589869
Bromobenzene	mg/l	.025	0.0246	98.5	76-121	WG589869
Bromodichloromethane	mg/l	.025	0.0244	97.6	75-127	WG589869
Bromoform	mg/l	.025	0.0237	95.0	61-136	WG589869
Bromomethane	mg/l	.025	0.0263	105.	42-172	WG589869
Carbon tetrachloride	mg/l	.025	0.0258	103.	63-129	WG589869
Chlorobenzene	mg/l	.025	0.0261	105.	78-123	WG589869
Chlorodibromomethane	mg/l	.025	0.0248	99.1	73-128	WG589869
Chloroethane	mg/l	.025	0.0277	111.	52-164	WG589869
Chloroform	mg/l	.025	0.0250	99.8	76-122	WG589869
Chloromethane	mg/l	.025	0.0280	112.	50-141	WG589869
cis-1,2-Dichloroethene	mg/l	.025	0.0255	102.	75-121	WG589869
cis-1,3-Dichloropropene	mg/l	.025	0.0255	102.	74-124	WG589869
Di-isopropyl ether	mg/l	.025	0.0248	99.2	66-129	WG589869
Dibromomethane	mg/l	.025	0.0248	99.0	77-124	WG589869
Dichlorodifluoromethane	mg/l	.025	0.0283	113.	33-173	WG589869
Ethylbenzene	mg/l	.025	0.0271	108.	77-124	WG589869
Hexachloro-1,3-butadiene	mg/l	.025	0.0244	97.6	71-134	WG589869
Isopropylbenzene	mg/l	.025	0.0277	111.	74-126	WG589869
Methyl tert-butyl ether	mg/l	.025	0.0243	97.0	67-127	WG589869
Methylene Chloride	mg/l	.025	0.0243	97.1	67-122	WG589869
n-Butylbenzene	mg/l	.025	0.0266	106.	74-130	WG589869
n-Propylbenzene	mg/l	.025	0.0267	107.	77-125	WG589869
Naphthalene	mg/l	.025	0.0226	90.3	70-134	WG589869
p-Isopropyltoluene	mg/l	.025	0.0272	109.	77-132	WG589869
sec-Butylbenzene	mg/l	.025	0.0271	108.	77-130	WG589869
Styrene	mg/l	.025	0.0270	108.	69-145	WG589869
tert-Butylbenzene	mg/l	.025	0.0271	108.	76-131	WG589869
Tetrachloroethene	mg/l	.025	0.0264	106.	69-131	WG589869
Toluene	mg/l	.025	0.0241	96.3	75-114	WG589869
trans-1,2-Dichloroethene	mg/l	.025	0.0246	98.5	63-127	WG589869
trans-1,3-Dichloropropene	mg/l	.025	0.0240	96.1	69-124	WG589869
Trichloroethene	mg/l	.025	0.0251	101.	69-131	WG589869
Trichlorofluoromethane	mg/l	.025	0.0278	111.	53-161	WG589869
Vinyl chloride	mg/l	.025	0.0241	96.5	55-142	WG589869
Xylenes, Total	mg/l	.075	0.0784	104.	77-123	WG589869
4-Bromofluorobenzene				108.0	82-120	WG589869
Dibromofluoromethane				97.98	82-126	WG589869
Toluene-d8				102.4	92-112	WG589869
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0233	93.0	77-128	WG589989
1,1,1-Trichloroethane	mg/l	.025	0.0213	85.2	71-126	WG589989

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Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0225	90.2	78-130	WG589989
1,1,2-Trichloroethane	mg/l	.025	0.0228	91.3	81-121	WG589989
1,1-Dichloroethane	mg/l	.025	0.0210	83.8	73-123	WG589989
1,1-Dichloroethene	mg/l	.025	0.0179	71.4	54-134	WG589989
1,1-Dichloropropene	mg/l	.025	0.0193	77.2	67-127	WG589989
1,2,3-Trichlorobenzene	mg/l	.025	0.0228	91.3	77-130	WG589989
1,2,3-Trichloropropane	mg/l	.025	0.0229	91.6	68-130	WG589989
1,2,4-Trichlorobenzene	mg/l	.025	0.0228	91.4	76-127	WG589989
1,2,4-Trimethylbenzene	mg/l	.025	0.0208	83.4	77-129	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0221	88.3	55-142	WG589989
1,2-Dibromoethane	mg/l	.025	0.0243	97.0	78-124	WG589989
1,2-Dichlorobenzene	mg/l	.025	0.0217	86.7	82-121	WG589989
1,2-Dichloroethane	mg/l	.025	0.0221	88.2	69-128	WG589989
1,2-Dichloropropane	mg/l	.025	0.0210	84.1	77-121	WG589989
1,3,5-Trimethylbenzene	mg/l	.025	0.0214	85.5	78-127	WG589989
1,3-Dichlorobenzene	mg/l	.025	0.0221	88.3	77-127	WG589989
1,3-Dichloropropane	mg/l	.025	0.0230	92.0	78-117	WG589989
1,4-Dichlorobenzene	mg/l	.025	0.0217	86.8	79-117	WG589989
2,2-Dichloropropane	mg/l	.025	0.0209	83.8	63-130	WG589989
2-Butanone (MEK)	mg/l	.125	0.123	98.3	58-144	WG589989
2-Chloroethyl vinyl ether	mg/l	.125	0.104	83.2	26-172	WG589989
2-Chlorotoluene	mg/l	.025	0.0212	84.8	78-123	WG589989
4-Chlorotoluene	mg/l	.025	0.0212	85.0	78-122	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.115	92.3	58-147	WG589989
Acetone	mg/l	.125	0.144	116.	49-153	WG589989
Acrolein	mg/l	.125	0.116	92.5	10-181	WG589989
Acrylonitrile	mg/l	.125	0.112	89.3	53-153	WG589989
Benzene	mg/l	.025	0.0196	78.5	72-119	WG589989
Bromobenzene	mg/l	.025	0.0205	81.8	76-121	WG589989
Bromodichloromethane	mg/l	.025	0.0223	89.2	75-127	WG589989
Bromoform	mg/l	.025	0.0240	95.9	61-136	WG589989
Bromomethane	mg/l	.025	0.0138	55.0	42-172	WG589989
Carbon tetrachloride	mg/l	.025	0.0199	79.7	63-129	WG589989
Chlorobenzene	mg/l	.025	0.0210	84.1	78-123	WG589989
Chlorodibromomethane	mg/l	.025	0.0234	93.4	73-128	WG589989
Chloroethane	mg/l	.025	0.0194	77.8	52-164	WG589989
Chloroform	mg/l	.025	0.0216	86.5	76-122	WG589989
Chloromethane	mg/l	.025	0.0154	61.7	50-141	WG589989
cis-1,2-Dichloroethene	mg/l	.025	0.0205	81.9	75-121	WG589989
cis-1,3-Dichloropropene	mg/l	.025	0.0231	92.4	74-124	WG589989
Di-isopropyl ether	mg/l	.025	0.0224	89.8	66-129	WG589989
Dibromomethane	mg/l	.025	0.0243	97.2	77-124	WG589989
Dichlorodifluoromethane	mg/l	.025	0.0172	68.9	33-173	WG589989
Ethylbenzene	mg/l	.025	0.0201	80.3	77-124	WG589989
Hexachloro-1,3-butadiene	mg/l	.025	0.0212	84.8	71-134	WG589989
Isopropylbenzene	mg/l	.025	0.0219	87.7	74-126	WG589989
Methyl tert-butyl ether	mg/l	.025	0.0193	77.1	67-127	WG589989
Methylene Chloride	mg/l	.025	0.0197	78.7	67-122	WG589989
n-Butylbenzene	mg/l	.025	0.0198	79.3	74-130	WG589989
n-Propylbenzene	mg/l	.025	0.0198	79.2	77-125	WG589989
Naphthalene	mg/l	.025	0.0233	93.0	70-134	WG589989
p-Isopropyltoluene	mg/l	.025	0.0215	86.1	77-132	WG589989
sec-Butylbenzene	mg/l	.025	0.0213	85.0	77-130	WG589989
Styrene	mg/l	.025	0.0208	83.2	69-145	WG589989
tert-Butylbenzene	mg/l	.025	0.0219	87.4	76-131	WG589989
Tetrachloroethene	mg/l	.025	0.0203	81.1	69-131	WG589989
Toluene	mg/l	.025	0.0204	81.7	75-114	WG589989
trans-1,2-Dichloroethene	mg/l	.025	0.0192	76.9	63-127	WG589989
trans-1,3-Dichloropropene	mg/l	.025	0.0233	93.4	69-124	WG589989

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Mr. Scott Randall
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Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Trichloroethene	mg/l	.025	0.0207	82.7	69-131	WG589989
Trichlorofluoromethane	mg/l	.025	0.0214	85.8	53-161	WG589989
Vinyl chloride	mg/l	.025	0.0176	70.5	55-142	WG589989
Xylenes, Total	mg/l	.075	0.0611	81.5	77-123	WG589989
4-Bromofluorobenzene				98.86	82-120	WG589989
Dibromofluoromethane				101.5	82-126	WG589989
Toluene-d8				103.4	92-112	WG589989

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0228	0.0225	91.0	77-128	1.58	20	WG589841
1,1,1-Trichloroethane	mg/l	0.0220	0.0215	88.0	71-126	2.31	20	WG589841
1,1,2,2-Tetrachloroethane	mg/l	0.0198	0.0196	79.0	78-130	0.820	20	WG589841
1,1,2-Trichloroethane	mg/l	0.0220	0.0211	88.0	81-121	4.10	20	WG589841
1,1-Dichloroethane	mg/l	0.0217	0.0213	87.0	73-123	2.07	20	WG589841
1,1-Dichloroethene	mg/l	0.0215	0.0213	86.0	54-134	1.27	20	WG589841
1,1-Dichloropropene	mg/l	0.0221	0.0209	88.0	67-127	5.86	20	WG589841
1,2,3-Trichlorobenzene	mg/l	0.0216	0.0208	86.0	77-130	3.44	20	WG589841
1,2,3-Trichloropropane	mg/l	0.0209	0.0219	84.0	68-130	4.43	20	WG589841
1,2,4-Trichlorobenzene	mg/l	0.0242	0.0231	97.0	76-127	4.68	20	WG589841
1,2,4-Trimethylbenzene	mg/l	0.0228	0.0231	91.0	77-129	1.61	20	WG589841
1,2-Dibromo-3-Chloropropane	mg/l	0.0187	0.0183	75.0	55-142	2.57	20	WG589841
1,2-Dibromoethane	mg/l	0.0216	0.0208	86.0	78-124	3.52	20	WG589841
1,2-Dichlorobenzene	mg/l	0.0225	0.0224	90.0	82-121	0.740	20	WG589841
1,2-Dichloroethane	mg/l	0.0201	0.0197	80.0	69-128	2.41	20	WG589841
1,2-Dichloropropane	mg/l	0.0215	0.0215	86.0	77-121	0.0800	20	WG589841
1,3,5-Trimethylbenzene	mg/l	0.0230	0.0235	92.0	78-127	1.80	20	WG589841
1,3-Dichlorobenzene	mg/l	0.0236	0.0233	94.0	77-127	1.53	20	WG589841
1,3-Dichloropropane	mg/l	0.0215	0.0215	86.0	78-117	0.160	20	WG589841
1,4-Dichlorobenzene	mg/l	0.0227	0.0225	91.0	79-117	1.08	20	WG589841
2,2-Dichloropropane	mg/l	0.0215	0.0219	86.0	63-130	1.66	20	WG589841
2-Butanone (MEK)	mg/l	0.117	0.115	94.0	58-144	1.95	20	WG589841
2-Chloroethyl vinyl ether	mg/l	0.109	0.107	87.0	26-172	1.92	22	WG589841
2-Chlorotoluene	mg/l	0.0222	0.0226	89.0	78-123	1.71	20	WG589841
4-Chlorotoluene	mg/l	0.0229	0.0230	92.0	78-122	0.560	20	WG589841
4-Methyl-2-pentanone (MIBK)	mg/l	0.101	0.0965	81.0	58-147	4.53	20	WG589841
Acetone	mg/l	0.130	0.134	104.	49-153	2.72	21	WG589841
Acrolein	mg/l	0.105	0.100	84.0	10-181	4.57	30	WG589841
Acrylonitrile	mg/l	0.0988	0.0938	79.0	53-153	5.18	20	WG589841
Benzene	mg/l	0.0218	0.0213	87.0	72-119	2.41	20	WG589841
Bromobenzene	mg/l	0.0220	0.0222	88.0	76-121	0.930	20	WG589841
Bromodichloromethane	mg/l	0.0211	0.0207	84.0	75-127	2.16	20	WG589841
Bromoform	mg/l	0.0210	0.0202	84.0	61-136	3.77	20	WG589841
Bromomethane	mg/l	0.0224	0.0231	90.0	42-172	2.83	20	WG589841
Carbon tetrachloride	mg/l	0.0217	0.0218	87.0	63-129	0.140	20	WG589841
Chlorobenzene	mg/l	0.0230	0.0235	92.0	78-123	2.20	20	WG589841
Chlorodibromomethane	mg/l	0.0212	0.0213	85.0	73-128	0.680	20	WG589841
Chloroethane	mg/l	0.0236	0.0240	94.0	52-164	1.71	20	WG589841
Chloroform	mg/l	0.0222	0.0218	89.0	76-122	1.95	20	WG589841
Chloromethane	mg/l	0.0207	0.0203	83.0	50-141	2.12	20	WG589841
cis-1,2-Dichloroethene	mg/l	0.0219	0.0212	88.0	75-121	3.40	20	WG589841
cis-1,3-Dichloropropene	mg/l	0.0213	0.0209	85.0	74-124	2.03	20	WG589841
Di-isopropyl ether	mg/l	0.0211	0.0204	84.0	66-129	3.35	20	WG589841
Dibromomethane	mg/l	0.0206	0.0211	82.0	77-124	2.06	20	WG589841
Dichlorodifluoromethane	mg/l	0.0203	0.0209	81.0	33-173	3.03	20	WG589841
Ethylbenzene	mg/l	0.0232	0.0234	93.0	77-124	1.01	20	WG589841
Hexachloro-1,3-butadiene	mg/l	0.0231	0.0226	92.0	71-134	2.08	20	WG589841
Isopropylbenzene	mg/l	0.0242	0.0249	97.0	74-126	3.09	20	WG589841

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Quality Assurance Report
Level II

L572035

April 30, 2012

		Laboratory Control Sample Duplicate						
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Methyl tert-butyl ether	mg/l	0.0210	0.0196	84.0	67-127	6.88	20	WG589841
Methylene Chloride	mg/l	0.0199	0.0195	79.0	67-122	1.97	20	WG589841
n-Butylbenzene	mg/l	0.0238	0.0239	95.0	74-130	0.690	20	WG589841
n-Propylbenzene	mg/l	0.0232	0.0238	93.0	77-125	2.36	20	WG589841
Naphthalene	mg/l	0.0187	0.0186	75.0	70-134	0.930	20	WG589841
p-Isopropyltoluene	mg/l	0.0235	0.0237	94.0	77-132	1.11	20	WG589841
sec-Butylbenzene	mg/l	0.0235	0.0240	94.0	77-130	1.72	20	WG589841
Styrene	mg/l	0.0229	0.0225	92.0	69-145	1.85	20	WG589841
tert-Butylbenzene	mg/l	0.0234	0.0241	94.0	76-131	3.00	20	WG589841
Tetrachloroethene	mg/l	0.0224	0.0236	89.0	69-131	5.24	20	WG589841
Toluene	mg/l	0.0220	0.0215	88.0	75-114	2.53	20	WG589841
trans-1,2-Dichloroethene	mg/l	0.0216	0.0212	86.0	63-127	1.98	20	WG589841
trans-1,3-Dichloropropene	mg/l	0.0212	0.0213	85.0	69-124	0.380	20	WG589841
Trichloroethene	mg/l	0.0226	0.0225	90.0	69-131	0.440	20	WG589841
Trichlorofluoromethane	mg/l	0.0233	0.0227	93.0	53-161	2.82	20	WG589841
Vinyl chloride	mg/l	0.0211	0.0215	84.0	55-142	2.06	20	WG589841
Xylenes, Total	mg/l	0.0692	0.0701	92.0	77-123	1.37	20	WG589841
4-Bromofluorobenzene				97.56	82-120			WG589841
Dibromofluoromethane				95.10	82-126			WG589841
Toluene-d8				101.2	92-112			WG589841
1,1,1,2-Tetrachloroethane	mg/l	0.0226	0.0246	90.0	77-128	8.49	20	WG589869
1,1,1-Trichloroethane	mg/l	0.0263	0.0268	105.	71-126	1.74	20	WG589869
1,1,2,2-Tetrachloroethane	mg/l	0.0233	0.0240	93.0	78-130	3.00	20	WG589869
1,1,2-Trichloroethane	mg/l	0.0241	0.0255	96.0	81-121	5.50	20	WG589869
1,1-Dichloroethane	mg/l	0.0252	0.0247	101.	73-123	1.93	20	WG589869
1,1-Dichloroethene	mg/l	0.0252	0.0250	101.	54-134	0.900	20	WG589869
1,1-Dichloropropene	mg/l	0.0254	0.0249	102.	67-127	2.12	20	WG589869
1,2,3-Trichlorobenzene	mg/l	0.0228	0.0248	91.0	77-130	8.10	20	WG589869
1,2,3-Trichloropropane	mg/l	0.0239	0.0248	95.0	68-130	3.64	20	WG589869
1,2,4-Trichlorobenzene	mg/l	0.0231	0.0250	92.0	76-127	8.03	20	WG589869
1,2,4-Trimethylbenzene	mg/l	0.0245	0.0259	98.0	77-129	5.28	20	WG589869
1,2-Dibromo-3-Chloropropane	mg/l	0.0229	0.0217	91.0	55-142	5.38	20	WG589869
1,2-Dibromoethane	mg/l	0.0227	0.0240	91.0	78-124	5.28	20	WG589869
1,2-Dichlorobenzene	mg/l	0.0233	0.0244	93.0	82-121	4.98	20	WG589869
1,2-Dichloroethane	mg/l	0.0248	0.0236	99.0	69-128	5.07	20	WG589869
1,2-Dichloropropane	mg/l	0.0248	0.0233	99.0	77-121	6.07	20	WG589869
1,3,5-Trimethylbenzene	mg/l	0.0255	0.0273	102.	78-127	6.76	20	WG589869
1,3-Dichlorobenzene	mg/l	0.0253	0.0269	101.	77-127	6.20	20	WG589869
1,3-Dichloropropane	mg/l	0.0231	0.0236	92.0	78-117	1.99	20	WG589869
1,4-Dichlorobenzene	mg/l	0.0227	0.0244	91.0	79-117	7.49	20	WG589869
2,2-Dichloropropane	mg/l	0.0277	0.0274	111.	63-130	0.910	20	WG589869
2-Butanone (MEK)	mg/l	0.159	0.143	127.	58-144	10.9	20	WG589869
2-Chloroethyl vinyl ether	mg/l	0.126	0.116	101.	26-172	8.40	22	WG589869
2-Chlorotoluene	mg/l	0.0249	0.0262	99.0	78-123	5.32	20	WG589869
4-Chlorotoluene	mg/l	0.0246	0.0261	98.0	78-122	5.90	20	WG589869
4-Methyl-2-pentanone (MIBK)	mg/l	0.136	0.123	109.	58-147	10.3	20	WG589869
Acetone	mg/l	0.201	0.177	161*	49-153	12.9	21	WG589869
Acrolein	mg/l	0.120	0.110	96.0	10-181	8.00	30	WG589869
Acrylonitrile	mg/l	0.131	0.119	105.	53-153	9.79	20	WG589869
Benzene	mg/l	0.0251	0.0248	100.	72-119	1.06	20	WG589869
Bromobenzene	mg/l	0.0238	0.0246	95.0	76-121	3.43	20	WG589869
Bromodichloromethane	mg/l	0.0246	0.0244	98.0	75-127	0.830	20	WG589869
Bromoform	mg/l	0.0241	0.0237	96.0	61-136	1.29	20	WG589869
Bromomethane	mg/l	0.0291	0.0263	116.	42-172	10.2	20	WG589869
Carbon tetrachloride	mg/l	0.0249	0.0258	99.0	63-129	3.54	20	WG589869
Chlorobenzene	mg/l	0.0245	0.0261	98.0	78-123	6.35	20	WG589869
Chlorodibromomethane	mg/l	0.0225	0.0248	90.0	73-128	9.41	20	WG589869

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Chloroethane	mg/l	0.0272	0.0277	109.	52-164	1.67	20	WG589869
Chloroform	mg/l	0.0249	0.0250	100.	76-122	0.0600	20	WG589869
Chloromethane	mg/l	0.0286	0.0280	114.	50-141	2.30	20	WG589869
cis-1,2-Dichloroethene	mg/l	0.0254	0.0255	102.	75-121	0.0800	20	WG589869
cis-1,3-Dichloropropene	mg/l	0.0255	0.0255	102.	74-124	0.260	20	WG589869
Di-isopropyl ether	mg/l	0.0250	0.0248	100.	66-129	0.750	20	WG589869
Dibromomethane	mg/l	0.0250	0.0248	100.	77-124	1.07	20	WG589869
Dichlorodifluoromethane	mg/l	0.0279	0.0283	112.	33-173	1.32	20	WG589869
Ethylbenzene	mg/l	0.0252	0.0271	101.	77-124	7.17	20	WG589869
Hexachloro-1,3-butadiene	mg/l	0.0232	0.0244	93.0	71-134	4.93	20	WG589869
Isopropylbenzene	mg/l	0.0261	0.0277	104.	74-126	5.86	20	WG589869
Methyl tert-butyl ether	mg/l	0.0245	0.0243	98.0	67-127	1.11	20	WG589869
Methylene Chloride	mg/l	0.0242	0.0243	97.0	67-122	0.100	20	WG589869
n-Butylbenzene	mg/l	0.0244	0.0266	98.0	74-130	8.64	20	WG589869
n-Propylbenzene	mg/l	0.0251	0.0267	100.	77-125	6.40	20	WG589869
Naphthalene	mg/l	0.0217	0.0226	87.0	70-134	3.87	20	WG589869
p-Isopropyltoluene	mg/l	0.0256	0.0272	102.	77-132	6.20	20	WG589869
sec-Butylbenzene	mg/l	0.0256	0.0271	102.	77-130	5.83	20	WG589869
Styrene	mg/l	0.0253	0.0270	101.	69-145	6.30	20	WG589869
tert-Butylbenzene	mg/l	0.0255	0.0271	102.	76-131	6.24	20	WG589869
Tetrachloroethene	mg/l	0.0253	0.0264	101.	69-131	4.49	20	WG589869
Toluene	mg/l	0.0250	0.0241	100.	75-114	3.89	20	WG589869
trans-1,2-Dichloroethene	mg/l	0.0254	0.0246	102.	63-127	3.08	20	WG589869
trans-1,3-Dichloropropene	mg/l	0.0245	0.0240	98.0	69-124	1.75	20	WG589869
Trichloroethene	mg/l	0.0244	0.0251	98.0	69-131	2.77	20	WG589869
Trichlorofluoromethane	mg/l	0.0291	0.0278	116.	53-161	4.46	20	WG589869
Vinyl chloride	mg/l	0.0248	0.0241	99.0	55-142	2.99	20	WG589869
Xylenes, Total	mg/l	0.0720	0.0784	96.0	77-123	8.40	20	WG589869
4-Bromofluorobenzene				98.63	82-120			WG589869
Dibromofluoromethane				100.6	82-126			WG589869
Toluene-d8				103.2	92-112			WG589869
1,1,1,2-Tetrachloroethane	mg/l	0.0259	0.0233	103.	77-128	10.7	20	WG589989
1,1,1-Trichloroethane	mg/l	0.0219	0.0213	88.0	71-126	2.69	20	WG589989
1,1,2,2-Tetrachloroethane	mg/l	0.0248	0.0225	99.0	78-130	9.38	20	WG589989
1,1,2-Trichloroethane	mg/l	0.0251	0.0228	100.	81-121	9.36	20	WG589989
1,1-Dichloroethane	mg/l	0.0216	0.0210	86.0	73-123	2.88	20	WG589989
1,1-Dichloroethene	mg/l	0.0187	0.0179	75.0	54-134	4.36	20	WG589989
1,1-Dichloropropene	mg/l	0.0196	0.0193	78.0	67-127	1.33	20	WG589989
1,2,3-Trichlorobenzene	mg/l	0.0249	0.0228	100.	77-130	8.57	20	WG589989
1,2,3-Trichloropropane	mg/l	0.0262	0.0229	105.	68-130	13.4	20	WG589989
1,2,4-Trichlorobenzene	mg/l	0.0248	0.0228	99.0	76-127	8.27	20	WG589989
1,2,4-Trimethylbenzene	mg/l	0.0229	0.0208	92.0	77-129	9.31	20	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	0.0241	0.0221	96.0	55-142	8.58	20	WG589989
1,2-Dibromoethane	mg/l	0.0263	0.0243	105.	78-124	8.21	20	WG589989
1,2-Dichlorobenzene	mg/l	0.0238	0.0217	95.0	82-121	9.26	20	WG589989
1,2-Dichloroethane	mg/l	0.0228	0.0221	91.0	69-128	3.46	20	WG589989
1,2-Dichloropropane	mg/l	0.0228	0.0210	91.0	77-121	8.03	20	WG589989
1,3,5-Trimethylbenzene	mg/l	0.0235	0.0214	94.0	78-127	9.40	20	WG589989
1,3-Dichlorobenzene	mg/l	0.0250	0.0221	100.	77-127	12.2	20	WG589989
1,3-Dichloropropane	mg/l	0.0252	0.0230	101.	78-117	9.00	20	WG589989
1,4-Dichlorobenzene	mg/l	0.0239	0.0217	96.0	79-117	9.63	20	WG589989
2,2-Dichloropropane	mg/l	0.0224	0.0209	89.0	63-130	6.56	20	WG589989
2-Butanone (MEK)	mg/l	0.131	0.123	104.	58-144	6.19	20	WG589989
2-Chloroethyl vinyl ether	mg/l	0.105	0.104	84.0	26-172	0.710	22	WG589989
2-Chlorotoluene	mg/l	0.0233	0.0212	93.0	78-123	9.60	20	WG589989
4-Chlorotoluene	mg/l	0.0236	0.0212	94.0	78-122	10.5	20	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	0.126	0.115	101.	58-147	9.05	20	WG589989

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Quality Assurance Report
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L572035

April 30, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
Acetone	mg/l	0.153	0.144	123.	49-153	6.01	21	WG589989
Acrolein	mg/l	0.121	0.116	97.0	10-181	4.66	30	WG589989
Acrylonitrile	mg/l	0.114	0.112	91.0	53-153	2.25	20	WG589989
Benzene	mg/l	0.0204	0.0196	81.0	72-119	3.71	20	WG589989
Bromobenzene	mg/l	0.0231	0.0205	92.0	76-121	12.0	20	WG589989
Bromodichloromethane	mg/l	0.0239	0.0223	96.0	75-127	6.86	20	WG589989
Bromoform	mg/l	0.0267	0.0240	107.	61-136	10.6	20	WG589989
Bromomethane	mg/l	0.0151	0.0138	60.0	42-172	9.27	20	WG589989
Carbon tetrachloride	mg/l	0.0203	0.0199	81.0	63-129	1.78	20	WG589989
Chlorobenzene	mg/l	0.0228	0.0210	91.0	78-123	7.98	20	WG589989
Chlorodibromomethane	mg/l	0.0261	0.0234	104.	73-128	11.1	20	WG589989
Chloroethane	mg/l	0.0197	0.0194	79.0	52-164	1.38	20	WG589989
Chloroform	mg/l	0.0227	0.0216	91.0	76-122	4.74	20	WG589989
Chloromethane	mg/l	0.0161	0.0154	64.0	50-141	4.29	20	WG589989
cis-1,2-Dichloroethene	mg/l	0.0220	0.0205	88.0	75-121	6.93	20	WG589989
cis-1,3-Dichloropropene	mg/l	0.0249	0.0231	99.0	74-124	7.38	20	WG589989
Di-isopropyl ether	mg/l	0.0233	0.0224	93.0	66-129	3.60	20	WG589989
Dibromomethane	mg/l	0.0260	0.0243	104.	77-124	6.67	20	WG589989
Dichlorodifluoromethane	mg/l	0.0176	0.0172	70.0	33-173	2.28	20	WG589989
Ethylbenzene	mg/l	0.0219	0.0201	88.0	77-124	8.74	20	WG589989
Hexachloro-1,3-butadiene	mg/l	0.0229	0.0212	92.0	71-134	7.79	20	WG589989
Isopropylbenzene	mg/l	0.0242	0.0219	97.0	74-126	9.99	20	WG589989
Methyl tert-butyl ether	mg/l	0.0198	0.0193	79.0	67-127	2.84	20	WG589989
Methylene Chloride	mg/l	0.0206	0.0197	82.0	67-122	4.63	20	WG589989
n-Butylbenzene	mg/l	0.0216	0.0198	86.0	74-130	8.64	20	WG589989
n-Propylbenzene	mg/l	0.0217	0.0198	87.0	77-125	9.35	20	WG589989
Naphthalene	mg/l	0.0252	0.0233	101.	70-134	8.10	20	WG589989
p-Isopropyltoluene	mg/l	0.0240	0.0215	96.0	77-132	11.1	20	WG589989
sec-Butylbenzene	mg/l	0.0236	0.0213	94.0	77-130	10.4	20	WG589989
Styrene	mg/l	0.0228	0.0208	91.0	69-145	9.31	20	WG589989
tert-Butylbenzene	mg/l	0.0243	0.0219	97.0	76-131	10.4	20	WG589989
Tetrachloroethene	mg/l	0.0213	0.0203	85.0	69-131	4.82	20	WG589989
Toluene	mg/l	0.0212	0.0204	85.0	75-114	3.82	20	WG589989
trans-1,2-Dichloroethene	mg/l	0.0193	0.0192	77.0	63-127	0.180	20	WG589989
trans-1,3-Dichloropropene	mg/l	0.0256	0.0233	102.	69-124	9.08	20	WG589989
Trichloroethene	mg/l	0.0214	0.0207	86.0	69-131	3.49	20	WG589989
Trichlorofluoromethane	mg/l	0.0220	0.0214	88.0	53-161	2.64	20	WG589989
Vinyl chloride	mg/l	0.0179	0.0176	72.0	55-142	1.61	20	WG589989
Xylenes, Total	mg/l	0.0657	0.0611	88.0	77-123	7.18	20	WG589989
4-Bromofluorobenzene				97.54	82-120			WG589989
Dibromofluoromethane				101.1	82-126			WG589989
Toluene-d8				101.5	92-112			WG589989

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0237	0	.025	94.8	71-130	L571688-01	WG589841
1,1,1-Trichloroethane	mg/l	0.0222	0	.025	88.7	58-137	L571688-01	WG589841
1,1,2,2-Tetrachloroethane	mg/l	0.0208	0	.025	83.1	64-149	L571688-01	WG589841
1,1,2-Trichloroethane	mg/l	0.0228	0	.025	91.0	73-128	L571688-01	WG589841
1,1-Dichloroethane	mg/l	0.0221	0	.025	88.5	58-133	L571688-01	WG589841
1,1-Dichloroethene	mg/l	0.0218	0	.025	87.1	32-152	L571688-01	WG589841
1,1-Dichloropropene	mg/l	0.0219	0	.025	87.6	50-140	L571688-01	WG589841
1,2,3-Trichlorobenzene	mg/l	0.0212	0	.025	84.7	68-135	L571688-01	WG589841
1,2,3-Trichloropropane	mg/l	0.0219	0	.025	87.7	74-137	L571688-01	WG589841
1,2,4-Trichlorobenzene	mg/l	0.0244	0	.025	97.4	67-133	L571688-01	WG589841
1,2,4-Trimethylbenzene	mg/l	0.0230	0	.025	92.1	62-141	L571688-01	WG589841
1,2-Dibromo-3-Chloropropane	mg/l	0.0203	0	.025	81.3	55-148	L571688-01	WG589841
1,2-Dibromoethane	mg/l	0.0223	0	.025	89.3	71-129	L571688-01	WG589841

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Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,2-Dichlorobenzene	mg/l	0.0226	0	.025	90.2	75-125	L571688-01	WG589841
1,2-Dichloroethane	mg/l	0.0209	0	.025	83.7	59-135	L571688-01	WG589841
1,2-Dichloropropane	mg/l	0.0225	0	.025	90.0	68-126	L571688-01	WG589841
1,3,5-Trimethylbenzene	mg/l	0.0232	0	.025	92.7	67-136	L571688-01	WG589841
1,3-Dichlorobenzene	mg/l	0.0235	0	.025	93.9	69-131	L571688-01	WG589841
1,3-Dichloropropane	mg/l	0.0217	0	.025	86.8	70-122	L571688-01	WG589841
1,4-Dichlorobenzene	mg/l	0.0228	0	.025	91.3	70-123	L571688-01	WG589841
2,2-Dichloropropane	mg/l	0.0227	0	.025	90.9	51-141	L571688-01	WG589841
2-Butanone (MEK)	mg/l	0.103	0	.125	82.0	51-149	L571688-01	WG589841
2-Chloroethyl vinyl ether	mg/l	0.0471	0	.125	37.7	10-161	L571688-01	WG589841
2-Chlorotoluene	mg/l	0.0227	0	.025	90.7	65-133	L571688-01	WG589841
4-Chlorotoluene	mg/l	0.0232	0	.025	93.0	67-129	L571688-01	WG589841
4-Methyl-2-pentanone (MIBK)	mg/l	0.106	0	.125	85.2	53-154	L571688-01	WG589841
Acetone	mg/l	0.141	0.0590	.125	66.0	34-146	L571688-01	WG589841
Acrolein	mg/l	0.120	0	.125	95.7	10-189	L571688-01	WG589841
Acrylonitrile	mg/l	0.109	0	.125	87.0	49-162	L571688-01	WG589841
Benzene	mg/l	0.0221	0	.025	88.2	51-134	L571688-01	WG589841
Bromobenzene	mg/l	0.0221	0	.025	88.3	64-130	L571688-01	WG589841
Bromodichloromethane	mg/l	0.0216	0	.025	86.6	67-132	L571688-01	WG589841
Bromoform	mg/l	0.0206	0	.025	82.4	59-137	L571688-01	WG589841
Bromomethane	mg/l	0.0235	0	.025	94.2	23-177	L571688-01	WG589841
Carbon tetrachloride	mg/l	0.0218	0	.025	87.3	49-140	L571688-01	WG589841
Chlorobenzene	mg/l	0.0234	0	.025	93.5	69-126	L571688-01	WG589841
Chlorodibromomethane	mg/l	0.0214	0	.025	85.4	68-130	L571688-01	WG589841
Chloroethane	mg/l	0.0248	0	.025	99.2	32-177	L571688-01	WG589841
Chloroform	mg/l	0.0222	0	.025	88.8	64-130	L571688-01	WG589841
Chloromethane	mg/l	0.0211	0	.025	84.2	27-155	L571688-01	WG589841
cis-1,2-Dichloroethene	mg/l	0.0225	0	.025	90.2	54-137	L571688-01	WG589841
cis-1,3-Dichloropropene	mg/l	0.0216	0	.025	86.4	63-127	L571688-01	WG589841
Di-isopropyl ether	mg/l	0.0212	0	.025	84.8	58-133	L571688-01	WG589841
Dibromomethane	mg/l	0.0219	0	.025	87.6	68-131	L571688-01	WG589841
Dichlorodifluoromethane	mg/l	0.0226	0	.025	90.6	16-188	L571688-01	WG589841
Ethylbenzene	mg/l	0.0228	0	.025	91.3	64-135	L571688-01	WG589841
Hexachloro-1,3-butadiene	mg/l	0.0224	0	.025	89.5	64-140	L571688-01	WG589841
Isopropylbenzene	mg/l	0.0246	0	.025	98.4	62-134	L571688-01	WG589841
Methyl tert-butyl ether	mg/l	0.0213	0	.025	85.3	55-136	L571688-01	WG589841
Methylene Chloride	mg/l	0.0199	0	.025	79.5	52-130	L571688-01	WG589841
n-Butylbenzene	mg/l	0.0237	0	.025	95.0	62-142	L571688-01	WG589841
n-Propylbenzene	mg/l	0.0232	0	.025	92.8	62-137	L571688-01	WG589841
Naphthalene	mg/l	0.0188	0	.025	75.1	65-140	L571688-01	WG589841
p-Isopropyltoluene	mg/l	0.0235	0	.025	94.1	64-142	L571688-01	WG589841
sec-Butylbenzene	mg/l	0.0237	0	.025	94.6	67-139	L571688-01	WG589841
Styrene	mg/l	0.0237	0	.025	94.7	58-152	L571688-01	WG589841
tert-Butylbenzene	mg/l	0.0235	0	.025	94.0	66-139	L571688-01	WG589841
Tetrachloroethene	mg/l	0.0236	0	.025	94.2	56-139	L571688-01	WG589841
Toluene	mg/l	0.0225	0	.025	89.9	61-126	L571688-01	WG589841
trans-1,2-Dichloroethene	mg/l	0.0222	0	.025	88.7	45-137	L571688-01	WG589841
trans-1,3-Dichloropropene	mg/l	0.0219	0	.025	87.6	59-130	L571688-01	WG589841
Trichloroethene	mg/l	0.0227	0	.025	91.0	40-155	L571688-01	WG589841
Trichlorofluoromethane	mg/l	0.0237	0	.025	94.7	35-177	L571688-01	WG589841
Vinyl chloride	mg/l	0.0227	0	.025	90.8	32-159	L571688-01	WG589841
Xylenes, Total	mg/l	0.0690	0	.075	91.9	64-133	L571688-01	WG589841
4-Bromofluorobenzene					98.79	82-120		WG589841
Dibromofluoromethane					98.00	82-126		WG589841
Toluene-d8					102.3	92-112		WG589841
1,1,1,2-Tetrachloroethane	mg/l	0.0241	0	.025	96.3	71-130	L572035-08	WG589869
1,1,1-Trichloroethane	mg/l	0.0285	0	.025	114.	58-137	L572035-08	WG589869

* Performance of this Analyte is outside of established criteria.
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12065 Lebanon Rd.
Mt. Juliet, TN 37122
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Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,2,2-Tetrachloroethane	mg/l	0.0242	0	.025	96.9	64-149	L572035-08	WG589869
1,1,2-Trichloroethane	mg/l	0.0241	0	.025	96.5	73-128	L572035-08	WG589869
1,1-Dichloroethane	mg/l	0.0261	0	.025	104.	58-133	L572035-08	WG589869
1,1-Dichloroethene	mg/l	0.0272	0	.025	109.	32-152	L572035-08	WG589869
1,1-Dichloropropene	mg/l	0.0266	0	.025	106.	50-140	L572035-08	WG589869
1,2,3-Trichlorobenzene	mg/l	0.0257	0	.025	103.	68-135	L572035-08	WG589869
1,2,3-Trichloropropane	mg/l	0.0247	0	.025	98.7	74-137	L572035-08	WG589869
1,2,4-Trichlorobenzene	mg/l	0.0256	0	.025	102.	67-133	L572035-08	WG589869
1,2,4-Trimethylbenzene	mg/l	0.0251	0	.025	100.	62-141	L572035-08	WG589869
1,2-Dibromo-3-Chloropropane	mg/l	0.0240	0	.025	96.0	55-148	L572035-08	WG589869
1,2-Dibromoethane	mg/l	0.0229	0	.025	91.5	71-129	L572035-08	WG589869
1,2-Dichlorobenzene	mg/l	0.0244	0	.025	97.4	75-125	L572035-08	WG589869
1,2-Dichloroethane	mg/l	0.0253	0	.025	101.	59-135	L572035-08	WG589869
1,2-Dichloropropane	mg/l	0.0263	0	.025	105.	68-126	L572035-08	WG589869
1,3,5-Trimethylbenzene	mg/l	0.0267	0	.025	107.	67-136	L572035-08	WG589869
1,3-Dichlorobenzene	mg/l	0.0253	0	.025	101.	69-131	L572035-08	WG589869
1,3-Dichloropropane	mg/l	0.0228	0	.025	91.3	70-122	L572035-08	WG589869
1,4-Dichlorobenzene	mg/l	0.0245	0	.025	98.0	70-123	L572035-08	WG589869
2,2-Dichloropropane	mg/l	0.0299	0	.025	120.	51-141	L572035-08	WG589869
2-Butanone (MEK)	mg/l	0.165	0	.125	132.	51-149	L572035-08	WG589869
2-Chloroethyl vinyl ether	mg/l	0.128	0	.125	102.	10-161	L572035-08	WG589869
2-Chlorotoluene	mg/l	0.0257	0	.025	103.	65-133	L572035-08	WG589869
4-Chlorotoluene	mg/l	0.0250	0	.025	100.	67-129	L572035-08	WG589869
4-Methyl-2-pentanone (MIBK)	mg/l	0.147	0	.125	118.	53-154	L572035-08	WG589869
Acetone	mg/l	0.217	0	.125	174.*	34-146	L572035-08	WG589869
Acrolein	mg/l	0.130	0	.125	104.	10-189	L572035-08	WG589869
Acrylonitrile	mg/l	0.139	0	.125	112.	49-162	L572035-08	WG589869
Benzene	mg/l	0.0263	0	.025	105.	51-134	L572035-08	WG589869
Bromobenzene	mg/l	0.0242	0	.025	96.8	64-130	L572035-08	WG589869
Bromodichloromethane	mg/l	0.0258	0	.025	103.	67-132	L572035-08	WG589869
Bromoform	mg/l	0.0241	0	.025	96.3	59-137	L572035-08	WG589869
Bromomethane	mg/l	0.0268	0	.025	107.	23-177	L572035-08	WG589869
Carbon tetrachloride	mg/l	0.0275	0	.025	110.	49-140	L572035-08	WG589869
Chlorobenzene	mg/l	0.0249	0	.025	99.8	69-126	L572035-08	WG589869
Chlorodibromomethane	mg/l	0.0233	0	.025	93.3	68-130	L572035-08	WG589869
Chloroethane	mg/l	0.0282	0	.025	113.	32-177	L572035-08	WG589869
Chloroform	mg/l	0.0258	0	.025	103.	64-130	L572035-08	WG589869
Chloromethane	mg/l	0.0281	0	.025	112.	27-155	L572035-08	WG589869
cis-1,2-Dichloroethene	mg/l	0.108	0.0900	.025	73.6	54-137	L572035-08	WG589869
cis-1,3-Dichloropropene	mg/l	0.0262	0	.025	105.	63-127	L572035-08	WG589869
Di-isopropyl ether	mg/l	0.0269	0	.025	108.	58-133	L572035-08	WG589869
Dibromomethane	mg/l	0.0261	0	.025	104.	68-131	L572035-08	WG589869
Dichlorodifluoromethane	mg/l	0.0298	0	.025	119.	16-188	L572035-08	WG589869
Ethylbenzene	mg/l	0.0266	0	.025	106.	64-135	L572035-08	WG589869
Hexachloro-1,3-butadiene	mg/l	0.0246	0	.025	98.3	64-140	L572035-08	WG589869
Isopropylbenzene	mg/l	0.0277	0	.025	111.	62-134	L572035-08	WG589869
Methyl tert-butyl ether	mg/l	0.0264	0	.025	106.	55-136	L572035-08	WG589869
Methylene Chloride	mg/l	0.0256	0	.025	102.	52-130	L572035-08	WG589869
n-Butylbenzene	mg/l	0.0267	0	.025	107.	62-142	L572035-08	WG589869
n-Propylbenzene	mg/l	0.0261	0	.025	104.	62-137	L572035-08	WG589869
Naphthalene	mg/l	0.0245	0	.025	98.2	65-140	L572035-08	WG589869
p-Isopropyltoluene	mg/l	0.0269	0	.025	107.	64-142	L572035-08	WG589869
sec-Butylbenzene	mg/l	0.0269	0	.025	108.	67-139	L572035-08	WG589869
Styrene	mg/l	0.0259	0	.025	104.	58-152	L572035-08	WG589869
tert-Butylbenzene	mg/l	0.0271	0	.025	108.	66-139	L572035-08	WG589869
Tetrachloroethene	mg/l	0.0258	0	.025	103.	56-139	L572035-08	WG589869
Toluene	mg/l	0.0262	0	.025	105.	61-126	L572035-08	WG589869
trans-1,2-Dichloroethene	mg/l	0.0272	0	.025	109.	45-137	L572035-08	WG589869
trans-1,3-Dichloropropene	mg/l	0.0256	0	.025	102.	59-130	L572035-08	WG589869

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Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Trichloroethene	mg/l	0.0266	0	.025	106.	40-155	L572035-08	WG589869
Trichlorofluoromethane	mg/l	0.0317	0	.025	127.	35-177	L572035-08	WG589869
Vinyl chloride	mg/l	0.0284	0.00300	.025	102.	32-159	L572035-08	WG589869
Xylenes, Total	mg/l	0.0747	0	.075	99.6	64-133	L572035-08	WG589869
4-Bromofluorobenzene					99.72	82-120		WG589869
Dibromofluoromethane					100.6	82-126		WG589869
Toluene-d8					102.5	92-112		WG589869
1,1,1,2-Tetrachloroethane	mg/l	0.0237	0	.025	94.7	71-130	L572035-12	WG589989
1,1,1-Trichloroethane	mg/l	0.0235	0	.025	93.9	58-137	L572035-12	WG589989
1,1,2,2-Tetrachloroethane	mg/l	0.0222	0	.025	89.0	64-149	L572035-12	WG589989
1,1,2-Trichloroethane	mg/l	0.0225	0	.025	90.1	73-128	L572035-12	WG589989
1,1-Dichloroethane	mg/l	0.0226	0	.025	90.2	58-133	L572035-12	WG589989
1,1-Dichloroethene	mg/l	0.0222	0	.025	88.7	32-152	L572035-12	WG589989
1,1-Dichloropropene	mg/l	0.0228	0	.025	91.1	50-140	L572035-12	WG589989
1,2,3-Trichlorobenzene	mg/l	0.0222	0	.025	88.7	68-135	L572035-12	WG589989
1,2,3-Trichloropropane	mg/l	0.0223	0	.025	89.2	74-137	L572035-12	WG589989
1,2,4-Trichlorobenzene	mg/l	0.0231	0	.025	92.6	67-133	L572035-12	WG589989
1,2,4-Trimethylbenzene	mg/l	0.0222	0	.025	88.7	62-141	L572035-12	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	0.0215	0	.025	85.8	55-148	L572035-12	WG589989
1,2-Dibromoethane	mg/l	0.0249	0	.025	99.7	71-129	L572035-12	WG589989
1,2-Dichlorobenzene	mg/l	0.0220	0	.025	88.1	75-125	L572035-12	WG589989
1,2-Dichloroethane	mg/l	0.0229	0	.025	91.4	59-135	L572035-12	WG589989
1,2-Dichloropropane	mg/l	0.0226	0	.025	90.4	68-126	L572035-12	WG589989
1,3,5-Trimethylbenzene	mg/l	0.0231	0	.025	92.5	67-136	L572035-12	WG589989
1,3-Dichlorobenzene	mg/l	0.0229	0	.025	91.7	69-131	L572035-12	WG589989
1,3-Dichloropropane	mg/l	0.0235	0	.025	94.0	70-122	L572035-12	WG589989
1,4-Dichlorobenzene	mg/l	0.0223	0	.025	89.3	70-123	L572035-12	WG589989
2,2-Dichloropropane	mg/l	0.0235	0	.025	94.0	51-141	L572035-12	WG589989
2-Butanone (MEK)	mg/l	0.109	0.0140	.125	75.8	51-149	L572035-12	WG589989
2-Chloroethyl vinyl ether	mg/l	0.0372	0	.125	29.7	10-161	L572035-12	WG589989
2-Chlorotoluene	mg/l	0.0225	0	.025	90.0	65-133	L572035-12	WG589989
4-Chlorotoluene	mg/l	0.0223	0	.025	89.3	67-129	L572035-12	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	0.114	0	.125	91.2	53-154	L572035-12	WG589989
Acetone	mg/l	0.103	0	.125	82.5	34-146	L572035-12	WG589989
Acrolein	mg/l	0.116	0	.125	93.0	10-189	L572035-12	WG589989
Acrylonitrile	mg/l	0.114	0	.125	90.9	49-162	L572035-12	WG589989
Benzene	mg/l	0.0219	0	.025	87.5	51-134	L572035-12	WG589989
Bromobenzene	mg/l	0.0214	0	.025	85.5	64-130	L572035-12	WG589989
Bromodichloromethane	mg/l	0.0230	0	.025	92.0	67-132	L572035-12	WG589989
Bromoform	mg/l	0.0236	0	.025	94.2	59-137	L572035-12	WG589989
Bromomethane	mg/l	0.0187	0	.025	74.8	23-177	L572035-12	WG589989
Carbon tetrachloride	mg/l	0.0226	0	.025	90.4	49-140	L572035-12	WG589989
Chlorobenzene	mg/l	0.0223	0	.025	89.0	69-126	L572035-12	WG589989
Chlorodibromomethane	mg/l	0.0237	0	.025	94.7	68-130	L572035-12	WG589989
Chloroethane	mg/l	0.0231	0	.025	92.5	32-177	L572035-12	WG589989
Chloroform	mg/l	0.0223	0	.025	89.1	64-130	L572035-12	WG589989
Chloromethane	mg/l	0.0188	0	.025	75.4	27-155	L572035-12	WG589989
cis-1,2-Dichloroethene	mg/l	0.0259	0.00360	.025	89.4	54-137	L572035-12	WG589989
cis-1,3-Dichloropropene	mg/l	0.0248	0	.025	99.2	63-127	L572035-12	WG589989
Di-isopropyl ether	mg/l	0.0231	0	.025	92.3	58-133	L572035-12	WG589989
Dibromomethane	mg/l	0.0263	0	.025	105.	68-131	L572035-12	WG589989
Dichlorodifluoromethane	mg/l	0.0215	0	.025	86.1	16-188	L572035-12	WG589989
Ethylbenzene	mg/l	0.0220	0	.025	88.1	64-135	L572035-12	WG589989
Hexachloro-1,3-butadiene	mg/l	0.0233	0	.025	93.1	64-140	L572035-12	WG589989
Isopropylbenzene	mg/l	0.0237	0	.025	95.0	62-134	L572035-12	WG589989
Methyl tert-butyl ether	mg/l	0.0194	0	.025	77.7	55-136	L572035-12	WG589989
Methylene Chloride	mg/l	0.0216	0	.025	86.3	52-130	L572035-12	WG589989

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Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
n-Butylbenzene	mg/l	0.0224	0	.025	89.6	62-142	L572035-12	WG589989
n-Propylbenzene	mg/l	0.0218	0	.025	87.1	62-137	L572035-12	WG589989
Naphthalene	mg/l	0.0220	0	.025	88.1	65-140	L572035-12	WG589989
p-Isopropyltoluene	mg/l	0.0238	0	.025	95.1	64-142	L572035-12	WG589989
sec-Butylbenzene	mg/l	0.0232	0	.025	92.8	67-139	L572035-12	WG589989
Styrene	mg/l	0.0212	0	.025	85.0	58-152	L572035-12	WG589989
tert-Butylbenzene	mg/l	0.0234	0	.025	93.8	66-139	L572035-12	WG589989
Tetrachloroethene	mg/l	0.0233	0	.025	93.3	56-139	L572035-12	WG589989
Toluene	mg/l	0.0221	0	.025	88.5	61-126	L572035-12	WG589989
trans-1,2-Dichloroethene	mg/l	0.0223	0	.025	89.2	45-137	L572035-12	WG589989
trans-1,3-Dichloropropene	mg/l	0.0245	0	.025	98.1	59-130	L572035-12	WG589989
Trichloroethene	mg/l	0.0232	0	.025	92.6	40-155	L572035-12	WG589989
Trichlorofluoromethane	mg/l	0.0261	0	.025	104.	35-177	L572035-12	WG589989
Vinyl chloride	mg/l	0.0221	0	.025	88.5	32-159	L572035-12	WG589989
Xylenes, Total	mg/l	0.0655	0	.075	87.4	64-133	L572035-12	WG589989
4-Bromofluorobenzene					98.07	82-120		WG589989
Dibromofluoromethane					102.0	82-126		WG589989
Toluene-d8					103.8	92-112		WG589989

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0232	0.0237	92.8	71-130	2.08	20	L571688-01	WG589841
1,1,1-Trichloroethane	mg/l	0.0237	0.0222	94.7	58-137	6.53	20	L571688-01	WG589841
1,1,2,2-Tetrachloroethane	mg/l	0.0215	0.0208	86.0	64-149	3.33	20	L571688-01	WG589841
1,1,2-Trichloroethane	mg/l	0.0227	0.0228	90.9	73-128	0.150	20	L571688-01	WG589841
1,1-Dichloroethane	mg/l	0.0234	0.0221	93.8	58-133	5.81	20	L571688-01	WG589841
1,1-Dichloroethene	mg/l	0.0236	0.0218	94.4	32-152	8.09	20	L571688-01	WG589841
1,1-Dichloropropene	mg/l	0.0238	0.0219	95.1	50-140	8.17	20	L571688-01	WG589841
1,2,3-Trichlorobenzene	mg/l	0.0233	0.0212	93.2	68-135	9.50	20	L571688-01	WG589841
1,2,3-Trichloropropane	mg/l	0.0229	0.0219	91.5	74-137	4.23	20	L571688-01	WG589841
1,2,4-Trichlorobenzene	mg/l	0.0251	0.0244	100.	67-133	3.11	20	L571688-01	WG589841
1,2,4-Trimethylbenzene	mg/l	0.0232	0.0230	93.0	62-141	0.980	20	L571688-01	WG589841
1,2-Dibromo-3-Chloropropane	mg/l	0.0200	0.0203	80.0	55-148	1.63	22	L571688-01	WG589841
1,2-Dibromoethane	mg/l	0.0219	0.0223	87.5	71-129	2.01	20	L571688-01	WG589841
1,2-Dichlorobenzene	mg/l	0.0241	0.0226	96.5	75-125	6.77	20	L571688-01	WG589841
1,2-Dichloroethane	mg/l	0.0223	0.0209	89.2	59-135	6.39	20	L571688-01	WG589841
1,2-Dichloropropane	mg/l	0.0236	0.0225	94.2	68-126	4.55	20	L571688-01	WG589841
1,3,5-Trimethylbenzene	mg/l	0.0233	0.0232	93.3	67-136	0.650	20	L571688-01	WG589841
1,3-Dichlorobenzene	mg/l	0.0236	0.0235	94.5	69-131	0.550	20	L571688-01	WG589841
1,3-Dichloropropane	mg/l	0.0217	0.0217	87.0	70-122	0.140	20	L571688-01	WG589841
1,4-Dichlorobenzene	mg/l	0.0244	0.0228	97.7	70-123	6.77	20	L571688-01	WG589841
2,2-Dichloropropane	mg/l	0.0243	0.0227	97.3	51-141	6.82	20	L571688-01	WG589841
2-Butanone (MEK)	mg/l	0.112	0.103	89.8	51-149	9.06	22	L571688-01	WG589841
2-Chloroethyl vinyl ether	mg/l	0.00862	0.0471	6.89*	10-161	138.*	40	L571688-01	WG589841
2-Chlorotoluene	mg/l	0.0230	0.0227	92.0	65-133	1.46	20	L571688-01	WG589841
4-Chlorotoluene	mg/l	0.0235	0.0232	93.9	67-129	0.960	20	L571688-01	WG589841
4-Methyl-2-pentanone (MIBK)	mg/l	0.110	0.106	87.9	53-154	3.13	21	L571688-01	WG589841
Acetone	mg/l	0.143	0.141	67.4	34-146	1.27	22	L571688-01	WG589841
Acrolein	mg/l	0.127	0.120	102.	10-189	6.11	30	L571688-01	WG589841
Acrylonitrile	mg/l	0.114	0.109	91.1	49-162	4.59	20	L571688-01	WG589841
Benzene	mg/l	0.0237	0.0221	94.9	51-134	7.27	20	L571688-01	WG589841
Bromobenzene	mg/l	0.0224	0.0221	89.5	64-130	1.36	20	L571688-01	WG589841
Bromodichloromethane	mg/l	0.0232	0.0216	92.9	67-132	7.11	20	L571688-01	WG589841
Bromoform	mg/l	0.0227	0.0206	90.7	59-137	9.60	20	L571688-01	WG589841
Bromomethane	mg/l	0.0249	0.0235	99.5	23-177	5.55	21	L571688-01	WG589841
Carbon tetrachloride	mg/l	0.0240	0.0218	96.1	49-140	9.67	20	L571688-01	WG589841
Chlorobenzene	mg/l	0.0233	0.0234	93.3	69-126	0.250	20	L571688-01	WG589841
Chlorodibromomethane	mg/l	0.0216	0.0214	86.6	68-130	1.34	20	L571688-01	WG589841

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Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	MSD	Matrix Spike Ref	Duplicate %Rec	Limit	RPD	Limit	Ref Samp	Batch
Chloroethane	mg/l	0.0265	0.0248	106.	32-177	6.75	21	L571688-01	WG589841
Chloroform	mg/l	0.0242	0.0222	96.9	64-130	8.74	20	L571688-01	WG589841
Chloromethane	mg/l	0.0225	0.0211	90.2	27-155	6.83	20	L571688-01	WG589841
cis-1,2-Dichloroethene	mg/l	0.0244	0.0225	97.5	54-137	7.83	20	L571688-01	WG589841
cis-1,3-Dichloropropene	mg/l	0.0223	0.0216	89.3	63-127	3.23	20	L571688-01	WG589841
Di-isopropyl ether	mg/l	0.0227	0.0212	90.8	58-133	6.81	20	L571688-01	WG589841
Dibromomethane	mg/l	0.0240	0.0219	96.0	68-131	9.09	20	L571688-01	WG589841
Dichlorodifluoromethane	mg/l	0.0229	0.0226	91.5	16-188	0.990	22	L571688-01	WG589841
Ethylbenzene	mg/l	0.0233	0.0228	93.4	64-135	2.21	20	L571688-01	WG589841
Hexachloro-1,3-butadiene	mg/l	0.0243	0.0224	97.4	64-140	8.42	20	L571688-01	WG589841
Isopropylbenzene	mg/l	0.0250	0.0246	100.	62-134	1.82	20	L571688-01	WG589841
Methyl tert-butyl ether	mg/l	0.0225	0.0213	90.0	55-136	5.38	20	L571688-01	WG589841
Methylene Chloride	mg/l	0.0215	0.0199	85.9	52-130	7.75	20	L571688-01	WG589841
n-Butylbenzene	mg/l	0.0253	0.0237	101.	62-142	6.28	20	L571688-01	WG589841
n-Propylbenzene	mg/l	0.0236	0.0232	94.6	62-137	1.86	20	L571688-01	WG589841
Naphthalene	mg/l	0.0199	0.0188	79.7	65-140	5.86	20	L571688-01	WG589841
p-Isopropyltoluene	mg/l	0.0242	0.0235	96.7	64-142	2.78	20	L571688-01	WG589841
sec-Butylbenzene	mg/l	0.0242	0.0237	96.8	67-139	2.29	20	L571688-01	WG589841
Styrene	mg/l	0.0228	0.0237	91.2	58-152	3.71	20	L571688-01	WG589841
tert-Butylbenzene	mg/l	0.0243	0.0235	97.3	66-139	3.50	20	L571688-01	WG589841
Tetrachloroethene	mg/l	0.0243	0.0236	97.3	56-139	3.20	20	L571688-01	WG589841
Toluene	mg/l	0.0235	0.0225	94.0	61-126	4.40	20	L571688-01	WG589841
trans-1,2-Dichloroethene	mg/l	0.0230	0.0222	91.9	45-137	3.53	20	L571688-01	WG589841
trans-1,3-Dichloropropene	mg/l	0.0240	0.0219	96.1	59-130	9.26	20	L571688-01	WG589841
Trichloroethene	mg/l	0.0240	0.0227	96.0	40-155	5.36	20	L571688-01	WG589841
Trichlorofluoromethane	mg/l	0.0251	0.0237	100.	35-177	5.86	23	L571688-01	WG589841
Vinyl chloride	mg/l	0.0243	0.0227	97.1	32-159	6.66	21	L571688-01	WG589841
Xylenes, Total	mg/l	0.0710	0.0690	94.6	64-133	2.87	20	L571688-01	WG589841
4-Bromofluorobenzene				94.59	82-120				WG589841
Dibromofluoromethane				99.74	82-126				WG589841
Toluene-d8				100.5	92-112				WG589841
1,1,1,2-Tetrachloroethane	mg/l	0.0237	0.0241	94.8	71-130	1.59	20	L572035-08	WG589869
1,1,1-Trichloroethane	mg/l	0.0274	0.0285	110.	58-137	3.92	20	L572035-08	WG589869
1,1,2,2-Tetrachloroethane	mg/l	0.0238	0.0242	95.1	64-149	1.87	20	L572035-08	WG589869
1,1,2-Trichloroethane	mg/l	0.0229	0.0241	91.8	73-128	5.08	20	L572035-08	WG589869
1,1-Dichloroethane	mg/l	0.0253	0.0261	101.	58-133	3.06	20	L572035-08	WG589869
1,1-Dichloroethene	mg/l	0.0267	0.0272	107.	32-152	1.94	20	L572035-08	WG589869
1,1-Dichloropropene	mg/l	0.0260	0.0266	104.	50-140	2.06	20	L572035-08	WG589869
1,2,3-Trichlorobenzene	mg/l	0.0242	0.0257	96.9	68-135	5.89	20	L572035-08	WG589869
1,2,3-Trichloropropane	mg/l	0.0231	0.0247	92.4	74-137	6.56	20	L572035-08	WG589869
1,2,4-Trichlorobenzene	mg/l	0.0249	0.0256	99.6	67-133	2.73	20	L572035-08	WG589869
1,2,4-Trimethylbenzene	mg/l	0.0243	0.0251	97.4	62-141	3.10	20	L572035-08	WG589869
1,2-Dibromo-3-Chloropropane	mg/l	0.0224	0.0240	89.6	55-148	6.91	22	L572035-08	WG589869
1,2-Dibromoethane	mg/l	0.0221	0.0229	88.3	71-129	3.55	20	L572035-08	WG589869
1,2-Dichlorobenzene	mg/l	0.0236	0.0244	94.5	75-125	3.06	20	L572035-08	WG589869
1,2-Dichloroethane	mg/l	0.0249	0.0253	99.7	59-135	1.47	20	L572035-08	WG589869
1,2-Dichloropropane	mg/l	0.0246	0.0263	98.4	68-126	6.77	20	L572035-08	WG589869
1,3,5-Trimethylbenzene	mg/l	0.0251	0.0267	100.	67-136	6.04	20	L572035-08	WG589869
1,3-Dichlorobenzene	mg/l	0.0250	0.0253	100.	69-131	1.16	20	L572035-08	WG589869
1,3-Dichloropropane	mg/l	0.0223	0.0228	89.3	70-122	2.27	20	L572035-08	WG589869
1,4-Dichlorobenzene	mg/l	0.0239	0.0245	95.8	70-123	2.29	20	L572035-08	WG589869
2,2-Dichloropropane	mg/l	0.0298	0.0299	119.	51-141	0.290	20	L572035-08	WG589869
2-Butanone (MEK)	mg/l	0.155	0.165	124.	51-149	6.39	22	L572035-08	WG589869
2-Chloroethyl vinyl ether	mg/l	0.124	0.128	99.0	10-161	3.43	40	L572035-08	WG589869
2-Chlorotoluene	mg/l	0.0241	0.0257	96.3	65-133	6.46	20	L572035-08	WG589869
4-Chlorotoluene	mg/l	0.0249	0.0250	99.6	67-129	0.480	20	L572035-08	WG589869
4-Methyl-2-pentanone (MIBK)	mg/l	0.132	0.147	106.	53-154	10.5	21	L572035-08	WG589869

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Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Acetone	mg/l	0.194	0.217	155.*	34-146	11.3	22	L572035-08	WG589869
Acrolein	mg/l	0.125	0.130	99.7	10-189	4.15	30	L572035-08	WG589869
Acrylonitrile	mg/l	0.135	0.139	108.	49-162	2.87	20	L572035-08	WG589869
Benzene	mg/l	0.0261	0.0263	104.	51-134	0.740	20	L572035-08	WG589869
Bromobenzene	mg/l	0.0235	0.0242	94.2	64-130	2.79	20	L572035-08	WG589869
Bromodichloromethane	mg/l	0.0252	0.0258	101.	67-132	2.33	20	L572035-08	WG589869
Bromoform	mg/l	0.0226	0.0241	90.2	59-137	6.47	20	L572035-08	WG589869
Bromomethane	mg/l	0.0268	0.0268	107.	23-177	0.0600	21	L572035-08	WG589869
Carbon tetrachloride	mg/l	0.0271	0.0275	108.	49-140	1.27	20	L572035-08	WG589869
Chlorobenzene	mg/l	0.0246	0.0249	98.3	69-126	1.49	20	L572035-08	WG589869
Chlorodibromomethane	mg/l	0.0226	0.0233	90.3	68-130	3.18	20	L572035-08	WG589869
Chloroethane	mg/l	0.0278	0.0282	111.	32-177	1.66	21	L572035-08	WG589869
Chloroform	mg/l	0.0257	0.0258	103.	64-130	0.610	20	L572035-08	WG589869
Chloromethane	mg/l	0.0267	0.0281	107.	27-155	5.10	20	L572035-08	WG589869
cis-1,2-Dichloroethene	mg/l	0.109	0.108	77.2	54-137	0.830	20	L572035-08	WG589869
cis-1,3-Dichloropropene	mg/l	0.0254	0.0262	102.	63-127	2.95	20	L572035-08	WG589869
Di-isopropyl ether	mg/l	0.0266	0.0269	106.	58-133	0.930	20	L572035-08	WG589869
Dibromomethane	mg/l	0.0256	0.0261	102.	68-131	1.74	20	L572035-08	WG589869
Dichlorodifluoromethane	mg/l	0.0292	0.0298	117.	16-188	1.94	22	L572035-08	WG589869
Ethylbenzene	mg/l	0.0246	0.0266	98.5	64-135	7.91	20	L572035-08	WG589869
Hexachloro-1,3-butadiene	mg/l	0.0238	0.0246	95.3	64-140	3.15	20	L572035-08	WG589869
Isopropylbenzene	mg/l	0.0263	0.0277	105.	62-134	5.06	20	L572035-08	WG589869
Methyl tert-butyl ether	mg/l	0.0257	0.0264	103.	55-136	2.72	20	L572035-08	WG589869
Methylene Chloride	mg/l	0.0252	0.0256	101.	52-130	1.77	20	L572035-08	WG589869
n-Butylbenzene	mg/l	0.0259	0.0267	104.	62-142	3.01	20	L572035-08	WG589869
n-Propylbenzene	mg/l	0.0249	0.0261	99.5	62-137	4.75	20	L572035-08	WG589869
Naphthalene	mg/l	0.0230	0.0245	92.1	65-140	6.32	20	L572035-08	WG589869
p-Isopropyltoluene	mg/l	0.0257	0.0269	103.	64-142	4.54	20	L572035-08	WG589869
sec-Butylbenzene	mg/l	0.0256	0.0269	102.	67-139	4.94	20	L572035-08	WG589869
Styrene	mg/l	0.0250	0.0259	99.9	58-152	3.68	20	L572035-08	WG589869
tert-Butylbenzene	mg/l	0.0254	0.0271	102.	66-139	6.47	20	L572035-08	WG589869
Tetrachloroethene	mg/l	0.0242	0.0258	96.9	56-139	6.32	20	L572035-08	WG589869
Toluene	mg/l	0.0251	0.0262	100.	61-126	4.52	20	L572035-08	WG589869
trans-1,2-Dichloroethene	mg/l	0.0267	0.0272	107.	45-137	2.02	20	L572035-08	WG589869
trans-1,3-Dichloropropene	mg/l	0.0243	0.0256	97.3	59-130	5.27	20	L572035-08	WG589869
Trichloroethene	mg/l	0.0254	0.0266	102.	40-155	4.60	20	L572035-08	WG589869
Trichlorofluoromethane	mg/l	0.0311	0.0317	124.	35-177	1.85	23	L572035-08	WG589869
Vinyl chloride	mg/l	0.0274	0.0284	97.7	32-159	3.50	21	L572035-08	WG589869
Xylenes, Total	mg/l	0.0736	0.0747	98.2	64-133	1.48	20	L572035-08	WG589869
4-Bromofluorobenzene				97.92	82-120				WG589869
Dibromofluoromethane				101.8	82-126				WG589869
Toluene-d8				103.4	92-112				WG589869
1,1,1,2-Tetrachloroethane	mg/l	0.0238	0.0237	95.2	71-130	0.470	20	L572035-12	WG589989
1,1,1-Trichloroethane	mg/l	0.0240	0.0235	96.1	58-137	2.32	20	L572035-12	WG589989
1,1,2,2-Tetrachloroethane	mg/l	0.0234	0.0222	93.8	64-149	5.25	20	L572035-12	WG589989
1,1,2-Trichloroethane	mg/l	0.0239	0.0225	95.5	73-128	5.81	20	L572035-12	WG589989
1,1-Dichloroethane	mg/l	0.0233	0.0226	93.2	58-133	3.21	20	L572035-12	WG589989
1,1-Dichloroethene	mg/l	0.0220	0.0222	88.2	32-152	0.640	20	L572035-12	WG589989
1,1-Dichloropropene	mg/l	0.0239	0.0228	95.7	50-140	4.95	20	L572035-12	WG589989
1,2,3-Trichlorobenzene	mg/l	0.0234	0.0222	93.8	68-135	5.52	20	L572035-12	WG589989
1,2,3-Trichloropropane	mg/l	0.0238	0.0223	95.3	74-137	6.63	20	L572035-12	WG589989
1,2,4-Trichlorobenzene	mg/l	0.0243	0.0231	97.2	67-133	4.86	20	L572035-12	WG589989
1,2,4-Trimethylbenzene	mg/l	0.0227	0.0222	90.7	62-141	2.18	20	L572035-12	WG589989
1,2-Dibromo-3-Chloropropane	mg/l	0.0230	0.0215	92.1	55-148	7.03	22	L572035-12	WG589989
1,2-Dibromoethane	mg/l	0.0251	0.0249	100.	71-129	0.580	20	L572035-12	WG589989
1,2-Dichlorobenzene	mg/l	0.0225	0.0220	90.1	75-125	2.27	20	L572035-12	WG589989
1,2-Dichloroethane	mg/l	0.0237	0.0229	94.8	59-135	3.65	20	L572035-12	WG589989

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Quality Assurance Report
Level II

L572035

April 30, 2012

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,2-Dichloropropane	mg/l	0.0232	0.0226	92.7	68-126	2.51	20	L572035-12	WG589989
1,3,5-Trimethylbenzene	mg/l	0.0234	0.0231	93.4	67-136	1.01	20	L572035-12	WG589989
1,3-Dichlorobenzene	mg/l	0.0234	0.0229	93.6	69-131	2.05	20	L572035-12	WG589989
1,3-Dichloropropane	mg/l	0.0238	0.0235	95.1	70-122	1.18	20	L572035-12	WG589989
1,4-Dichlorobenzene	mg/l	0.0231	0.0223	92.3	70-123	3.33	20	L572035-12	WG589989
2,2-Dichloropropane	mg/l	0.0245	0.0235	97.8	51-141	4.02	20	L572035-12	WG589989
2-Butanone (MEK)	mg/l	0.126	0.109	89.4	51-149	14.6	22	L572035-12	WG589989
2-Chloroethyl vinyl ether	mg/l	0.0164	0.0372	13.1	10-161	77.8*	40	L572035-12	WG589989
2-Chlorotoluene	mg/l	0.0227	0.0225	91.0	65-133	1.10	20	L572035-12	WG589989
4-Chlorotoluene	mg/l	0.0227	0.0223	90.6	67-129	1.49	20	L572035-12	WG589989
4-Methyl-2-pentanone (MIBK)	mg/l	0.123	0.114	98.7	53-154	7.87	21	L572035-12	WG589989
Acetone	mg/l	0.108	0.103	86.6	34-146	4.89	22	L572035-12	WG589989
Acrolein	mg/l	0.127	0.116	102.	10-189	8.95	30	L572035-12	WG589989
Acrylonitrile	mg/l	0.122	0.114	97.4	49-162	6.85	20	L572035-12	WG589989
Benzene	mg/l	0.0222	0.0219	88.6	51-134	1.28	20	L572035-12	WG589989
Bromobenzene	mg/l	0.0215	0.0214	86.0	64-130	0.590	20	L572035-12	WG589989
Bromodichloromethane	mg/l	0.0234	0.0230	93.6	67-132	1.80	20	L572035-12	WG589989
Bromoform	mg/l	0.0247	0.0236	98.7	59-137	4.57	20	L572035-12	WG589989
Bromomethane	mg/l	0.0179	0.0187	71.7	23-177	4.22	21	L572035-12	WG589989
Carbon tetrachloride	mg/l	0.0244	0.0226	97.5	49-140	7.49	20	L572035-12	WG589989
Chlorobenzene	mg/l	0.0221	0.0223	88.2	69-126	0.880	20	L572035-12	WG589989
Chlorodibromomethane	mg/l	0.0238	0.0237	95.1	68-130	0.490	20	L572035-12	WG589989
Chloroethane	mg/l	0.0229	0.0231	91.6	32-177	0.920	21	L572035-12	WG589989
Chloroform	mg/l	0.0233	0.0223	93.2	64-130	4.53	20	L572035-12	WG589989
Chloromethane	mg/l	0.0197	0.0188	78.7	27-155	4.29	20	L572035-12	WG589989
cis-1,2-Dichloroethene	mg/l	0.0268	0.0259	92.9	54-137	3.37	20	L572035-12	WG589989
cis-1,3-Dichloropropene	mg/l	0.0238	0.0248	95.3	63-127	4.02	20	L572035-12	WG589989
Di-isopropyl ether	mg/l	0.0240	0.0231	95.9	58-133	3.80	20	L572035-12	WG589989
Dibromomethane	mg/l	0.0264	0.0263	106.	68-131	0.570	20	L572035-12	WG589989
Dichlorodifluoromethane	mg/l	0.0226	0.0215	90.4	16-188	4.80	22	L572035-12	WG589989
Ethylbenzene	mg/l	0.0224	0.0220	89.4	64-135	1.47	20	L572035-12	WG589989
Hexachloro-1,3-butadiene	mg/l	0.0237	0.0233	94.6	64-140	1.64	20	L572035-12	WG589989
Isopropylbenzene	mg/l	0.0241	0.0237	96.6	62-134	1.67	20	L572035-12	WG589989
Methyl tert-butyl ether	mg/l	0.0200	0.0194	79.8	55-136	2.72	20	L572035-12	WG589989
Methylene Chloride	mg/l	0.0223	0.0216	89.1	52-130	3.21	20	L572035-12	WG589989
n-Butylbenzene	mg/l	0.0228	0.0224	91.2	62-142	1.84	20	L572035-12	WG589989
n-Propylbenzene	mg/l	0.0222	0.0218	88.8	62-137	1.89	20	L572035-12	WG589989
Naphthalene	mg/l	0.0236	0.0220	94.4	65-140	6.83	20	L572035-12	WG589989
p-Isopropyltoluene	mg/l	0.0242	0.0238	96.9	64-142	1.89	20	L572035-12	WG589989
sec-Butylbenzene	mg/l	0.0235	0.0232	93.9	67-139	1.13	20	L572035-12	WG589989
Styrene	mg/l	0.0216	0.0212	86.3	58-152	1.60	20	L572035-12	WG589989
tert-Butylbenzene	mg/l	0.0238	0.0234	95.1	66-139	1.38	20	L572035-12	WG589989
Tetrachloroethene	mg/l	0.0236	0.0233	94.6	56-139	1.37	20	L572035-12	WG589989
Toluene	mg/l	0.0228	0.0221	91.3	61-126	3.03	20	L572035-12	WG589989
trans-1,2-Dichloroethene	mg/l	0.0238	0.0223	95.1	45-137	6.33	20	L572035-12	WG589989
trans-1,3-Dichloropropene	mg/l	0.0249	0.0245	99.6	59-130	1.57	20	L572035-12	WG589989
Trichloroethene	mg/l	0.0237	0.0232	94.7	40-155	2.27	20	L572035-12	WG589989
Trichlorofluoromethane	mg/l	0.0269	0.0261	108.	35-177	3.13	23	L572035-12	WG589989
Vinyl chloride	mg/l	0.0228	0.0221	91.3	32-159	3.11	21	L572035-12	WG589989
Xylenes, Total	mg/l	0.0666	0.0655	88.7	64-133	1.57	20	L572035-12	WG589989
4-Bromofluorobenzene				97.24	82-120				WG589989
Dibromofluoromethane				103.1	82-126				WG589989
Toluene-d8				102.3	92-112				WG589989

Batch number /Run number / Sample number cross reference

WG589841: R2145673: L572035-01 02 03 04 05 06 07 11
WG589869: R2147793: L572035-08 09 10
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

WG589989: R2147833: L572035-12 13

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Greenfield, IN 46140

Quality Assurance Report
Level II

L572035

April 30, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

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Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

Report Summary

Thursday April 26, 2012

Report Number: L571654
Samples Received: 04/25/12
Client Project:

Description: Navy EMAC Millington, TN

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Alan Harvill

T. Alan Harvill , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-01

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 50 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 18:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/25/12	1
Acrolein	BDL	50.	ug/l	8260B	04/25/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/25/12	1
Benzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/25/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/25/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/25/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/25/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/25/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/25/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/25/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/25/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,2-Dichloroethene	190	1.0	ug/l	8260B	04/25/12	1
trans-1,2-Dichloroethene	3.7	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/25/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-01

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 50 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 18:36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	34.	10.	ug/l	8260B	04/25/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/25/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/25/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Styrene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Toluene	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Trichloroethene	950	10.	ug/l	8260B	04/26/12	10
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/25/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/25/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/12	1
Surrogate Recovery						
Toluene-d8	98.4		% Rec.	8260B	04/25/12	1
Dibromofluoromethane	100.		% Rec.	8260B	04/25/12	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-02

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 70 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 17:26

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/25/12	1
Acrolein	BDL	50.	ug/l	8260B	04/25/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/25/12	1
Benzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/25/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/25/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/25/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/25/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/25/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/25/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/25/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/25/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,2-Dichloroethene	110	1.0	ug/l	8260B	04/25/12	1
trans-1,2-Dichloroethene	1.9	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/25/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-02

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 70 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 17:26

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	48.	10.	ug/l	8260B	04/25/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/25/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/25/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Styrene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Toluene	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Trichloroethene	490	10.	ug/l	8260B	04/26/12	10
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/25/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/25/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/25/12	1
Dibromofluoromethane	99.8		% Rec.	8260B	04/25/12	1
4-Bromofluorobenzene	99.9		% Rec.	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-03

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 80 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 16:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/26/12	1
Acrolein	BDL	50.	ug/l	8260B	04/26/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/26/12	1
Benzene	BDL	1.0	ug/l	8260B	04/26/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/26/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/26/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/26/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/26/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/26/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/26/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/26/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/26/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/26/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/26/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/26/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/26/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/26/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/26/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/26/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/26/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/26/12	1
cis-1,2-Dichloroethene	24.	1.0	ug/l	8260B	04/26/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/26/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/26/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/26/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/26/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/26/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/26/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/26/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/26/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/26/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/26/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-03

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 80 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 16:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	57.	10.	ug/l	8260B	04/26/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/26/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/26/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/26/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/26/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Styrene	BDL	1.0	ug/l	8260B	04/26/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/26/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/26/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/26/12	1
Toluene	BDL	5.0	ug/l	8260B	04/26/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/26/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/26/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/26/12	1
Trichloroethene	120	1.0	ug/l	8260B	04/26/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/26/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/26/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/26/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/26/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/26/12	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	04/26/12	1
Dibromofluoromethane	94.2		% Rec.	8260B	04/26/12	1
4-Bromofluorobenzene	98.9		% Rec.	8260B	04/26/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-04

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 90 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 14:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	90.	50.	ug/l	8260B	04/25/12	1
Acrolein	BDL	50.	ug/l	8260B	04/25/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/25/12	1
Benzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/25/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/25/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/25/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/25/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/25/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/25/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/25/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/25/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,2-Dichloroethene	27.	1.0	ug/l	8260B	04/25/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/25/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-04

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 90 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 14:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	140	10.	ug/l	8260B	04/25/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/25/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/25/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Styrene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Toluene	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Trichloroethene	130	1.0	ug/l	8260B	04/25/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/25/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/25/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/12	1
Surrogate Recovery						
Toluene-d8	98.4		% Rec.	8260B	04/25/12	1
Dibromofluoromethane	99.3		% Rec.	8260B	04/25/12	1
4-Bromofluorobenzene	104.		% Rec.	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-05

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : 39 GLF 25 60 FT

Project # :

Collected By : Hall
Collection Date : 04/23/12 18:01

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/25/12	1
Acrolein	BDL	50.	ug/l	8260B	04/25/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/25/12	1
Benzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/25/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/25/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/25/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/25/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/25/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/25/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/25/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/25/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,2-Dichloroethene	78.	1.0	ug/l	8260B	04/25/12	1
trans-1,2-Dichloroethene	1.2	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/25/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-05

Site ID : 11259

Project # :

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Sample ID : 39 GLF 25 60 FT

Collected By : Hall
Collection Date : 04/23/12 18:01

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	65.	10.	ug/l	8260B	04/25/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/25/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/25/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Styrene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Toluene	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Trichloroethene	370	10.	ug/l	8260B	04/26/12	10
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/25/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/25/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/12	1
Surrogate Recovery						
Toluene-d8	97.8		% Rec.	8260B	04/25/12	1
Dibromofluoromethane	100.		% Rec.	8260B	04/25/12	1
4-Bromofluorobenzene	98.9		% Rec.	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-06

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : DUP 1

Project # :

Collected By : Hall
Collection Date : 04/23/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	87.	50.	ug/l	8260B	04/25/12	1
Acrolein	BDL	50.	ug/l	8260B	04/25/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/25/12	1
Benzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/25/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/25/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/25/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/25/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/25/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/25/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/25/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/25/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,2-Dichloroethene	28.	1.0	ug/l	8260B	04/25/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/25/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-06

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : DUP 1

Project # :

Collected By : Hall
Collection Date : 04/23/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	130	10.	ug/l	8260B	04/25/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/25/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/25/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Styrene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Toluene	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Trichloroethene	130	1.0	ug/l	8260B	04/25/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/25/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/25/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/12	1
Surrogate Recovery						
Toluene-d8	98.9		% Rec.	8260B	04/25/12	1
Dibromofluoromethane	99.8		% Rec.	8260B	04/25/12	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-07

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : TRIP BLANK

Project # :

Collected By : Hall
Collection Date : 04/23/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	04/25/12	1
Acrolein	BDL	50.	ug/l	8260B	04/25/12	1
Acrylonitrile	BDL	10.	ug/l	8260B	04/25/12	1
Benzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	04/25/12	1
Bromoform	BDL	1.0	ug/l	8260B	04/25/12	1
Bromomethane	BDL	5.0	ug/l	8260B	04/25/12	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
Chloroethane	BDL	5.0	ug/l	8260B	04/25/12	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	04/25/12	1
Chloroform	BDL	5.0	ug/l	8260B	04/25/12	1
Chloromethane	BDL	2.5	ug/l	8260B	04/25/12	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	04/25/12	1
Dibromomethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	04/25/12	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	04/25/12	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Ethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	04/25/12	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Scott Randall
Lee & Ryan Environmental
1707 Melody Lane
Greenfield, IN 46140

April 26,2012

ESC Sample # : L571654-07

Date Received : April 25, 2012
Description : Navy EMAC Millington, TN

Site ID : 11259

Sample ID : TRIP BLANK

Project # :

Collected By : Hall
Collection Date : 04/23/12 00:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Butanone (MEK)	BDL	10.	ug/l	8260B	04/25/12	1
Methylene Chloride	BDL	5.0	ug/l	8260B	04/25/12	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	04/25/12	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	04/25/12	1
Naphthalene	BDL	5.0	ug/l	8260B	04/25/12	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Styrene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Toluene	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	04/25/12	1
Trichloroethene	BDL	1.0	ug/l	8260B	04/25/12	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	04/25/12	1
1,2,3-Trichloropropane	BDL	2.5	ug/l	8260B	04/25/12	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	04/25/12	1
Vinyl chloride	BDL	1.0	ug/l	8260B	04/25/12	1
Xylenes, Total	BDL	3.0	ug/l	8260B	04/25/12	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/25/12	1
Dibromofluoromethane	99.4		% Rec.	8260B	04/25/12	1
4-Bromofluorobenzene	96.9		% Rec.	8260B	04/25/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L571654-01	WG589483	SAMP	Acetone	R2141994	J4
L571654-02	WG589483	SAMP	Acetone	R2141994	J4
L571654-03	WG589660	SAMP	2-Chloroethyl vinyl ether	R2144113	J6J3
	WG589660	SAMP	Isopropylbenzene	R2144113	J5
	WG589660	SAMP	Tetrachloroethene	R2144113	J5
L571654-04	WG589483	SAMP	Acetone	R2141994	J4
L571654-05	WG589483	SAMP	Acetone	R2141994	J4
L571654-06	WG589483	SAMP	Acetone	R2141994	J4
L571654-07	WG589483	SAMP	Acetone	R2141994	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
04/26/12 at 15:10:21

TSR Signing Reports: 364
R4 - Rush: Three Day

Sample: L571654-01 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

Sample: L571654-02 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

Sample: L571654-03 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

Sample: L571654-04 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

Sample: L571654-05 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

Sample: L571654-06 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

Sample: L571654-07 Account: LEERYAN Received: 04/25/12 09:00 Due Date: 04/30/12 00:00 RPT Date: 04/26/12 14:32

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589483	04/25/12 13:36
1,1,1-Trichloroethane	< .001	mg/l			WG589483	04/25/12 13:36
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589483	04/25/12 13:36
1,1,2-Trichloroethane	< .001	mg/l			WG589483	04/25/12 13:36
1,1-Dichloroethane	< .001	mg/l			WG589483	04/25/12 13:36
1,1-Dichloroethene	< .001	mg/l			WG589483	04/25/12 13:36
1,1-Dichloropropene	< .001	mg/l			WG589483	04/25/12 13:36
1,2,3-Trichlorobenzene	< .001	mg/l			WG589483	04/25/12 13:36
1,2,3-Trichloropropane	< .001	mg/l			WG589483	04/25/12 13:36
1,2,4-Trichlorobenzene	< .001	mg/l			WG589483	04/25/12 13:36
1,2,4-Trimethylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589483	04/25/12 13:36
1,2-Dibromoethane	< .001	mg/l			WG589483	04/25/12 13:36
1,2-Dichlorobenzene	< .001	mg/l			WG589483	04/25/12 13:36
1,2-Dichloroethane	< .001	mg/l			WG589483	04/25/12 13:36
1,2-Dichloropropane	< .001	mg/l			WG589483	04/25/12 13:36
1,3,5-Trimethylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
1,3-Dichlorobenzene	< .001	mg/l			WG589483	04/25/12 13:36
1,3-Dichloropropane	< .001	mg/l			WG589483	04/25/12 13:36
1,4-Dichlorobenzene	< .001	mg/l			WG589483	04/25/12 13:36
2,2-Dichloropropane	< .001	mg/l			WG589483	04/25/12 13:36
2-Butanone (MEK)	< .01	mg/l			WG589483	04/25/12 13:36
2-Chloroethyl vinyl ether	< .05	mg/l			WG589483	04/25/12 13:36
2-Chlorotoluene	< .001	mg/l			WG589483	04/25/12 13:36
4-Chlorotoluene	< .001	mg/l			WG589483	04/25/12 13:36
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589483	04/25/12 13:36
Acetone	< .05	mg/l			WG589483	04/25/12 13:36
Acrolein	< .025	mg/l			WG589483	04/25/12 13:36
Acrylonitrile	< .01	mg/l			WG589483	04/25/12 13:36
Benzene	< .001	mg/l			WG589483	04/25/12 13:36
Bromobenzene	< .001	mg/l			WG589483	04/25/12 13:36
Bromodichloromethane	< .001	mg/l			WG589483	04/25/12 13:36
Bromoform	< .001	mg/l			WG589483	04/25/12 13:36
Bromomethane	< .005	mg/l			WG589483	04/25/12 13:36
Carbon tetrachloride	< .001	mg/l			WG589483	04/25/12 13:36
Chlorobenzene	< .001	mg/l			WG589483	04/25/12 13:36
Chlorodibromomethane	< .001	mg/l			WG589483	04/25/12 13:36
Chloroethane	< .005	mg/l			WG589483	04/25/12 13:36
Chloroform	< .005	mg/l			WG589483	04/25/12 13:36
Chloromethane	< .0025	mg/l			WG589483	04/25/12 13:36
cis-1,2-Dichloroethene	< .001	mg/l			WG589483	04/25/12 13:36
cis-1,3-Dichloropropene	< .001	mg/l			WG589483	04/25/12 13:36
Di-isopropyl ether	< .001	mg/l			WG589483	04/25/12 13:36
Dibromomethane	< .001	mg/l			WG589483	04/25/12 13:36
Dichlorodifluoromethane	< .005	mg/l			WG589483	04/25/12 13:36
Ethylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
Hexachloro-1,3-butadiene	< .001	mg/l			WG589483	04/25/12 13:36
Isopropylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
Methyl tert-butyl ether	< .001	mg/l			WG589483	04/25/12 13:36
Methylene Chloride	< .005	mg/l			WG589483	04/25/12 13:36
n-Butylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
n-Propylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
Naphthalene	< .005	mg/l			WG589483	04/25/12 13:36
p-Isopropyltoluene	< .001	mg/l			WG589483	04/25/12 13:36
sec-Butylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
Styrene	< .001	mg/l			WG589483	04/25/12 13:36
tert-Butylbenzene	< .001	mg/l			WG589483	04/25/12 13:36
Tetrachloroethene	< .001	mg/l			WG589483	04/25/12 13:36
Toluene	< .005	mg/l			WG589483	04/25/12 13:36

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
trans-1,2-Dichloroethene	< .001	mg/l			WG589483	04/25/12 13:36
trans-1,3-Dichloropropene	< .001	mg/l			WG589483	04/25/12 13:36
Trichloroethene	< .001	mg/l			WG589483	04/25/12 13:36
Trichlorofluoromethane	< .005	mg/l			WG589483	04/25/12 13:36
Vinyl chloride	< .001	mg/l			WG589483	04/25/12 13:36
Xylenes, Total	< .003	mg/l			WG589483	04/25/12 13:36
4-Bromofluorobenzene		% Rec.	98.78	82-120	WG589483	04/25/12 13:36
Dibromofluoromethane		% Rec.	100.8	82-126	WG589483	04/25/12 13:36
Toluene-d8		% Rec.	101.0	92-112	WG589483	04/25/12 13:36
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG589660	04/26/12 08:17
1,1,1-Trichloroethane	< .001	mg/l			WG589660	04/26/12 08:17
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG589660	04/26/12 08:17
1,1,2-Trichloroethane	< .001	mg/l			WG589660	04/26/12 08:17
1,1-Dichloroethane	< .001	mg/l			WG589660	04/26/12 08:17
1,1-Dichloroethene	< .001	mg/l			WG589660	04/26/12 08:17
1,1-Dichloropropene	< .001	mg/l			WG589660	04/26/12 08:17
1,2,3-Trichlorobenzene	< .001	mg/l			WG589660	04/26/12 08:17
1,2,3-Trichloropropane	< .001	mg/l			WG589660	04/26/12 08:17
1,2,4-Trichlorobenzene	< .001	mg/l			WG589660	04/26/12 08:17
1,2,4-Trimethylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG589660	04/26/12 08:17
1,2-Dibromoethane	< .001	mg/l			WG589660	04/26/12 08:17
1,2-Dichlorobenzene	< .001	mg/l			WG589660	04/26/12 08:17
1,2-Dichloroethane	< .001	mg/l			WG589660	04/26/12 08:17
1,2-Dichloropropane	< .001	mg/l			WG589660	04/26/12 08:17
1,3,5-Trimethylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
1,3-Dichlorobenzene	< .001	mg/l			WG589660	04/26/12 08:17
1,3-Dichloropropane	< .001	mg/l			WG589660	04/26/12 08:17
1,4-Dichlorobenzene	< .001	mg/l			WG589660	04/26/12 08:17
2,2-Dichloropropane	< .001	mg/l			WG589660	04/26/12 08:17
2-Butanone (MEK)	< .01	mg/l			WG589660	04/26/12 08:17
2-Chloroethyl vinyl ether	< .05	mg/l			WG589660	04/26/12 08:17
2-Chlorotoluene	< .001	mg/l			WG589660	04/26/12 08:17
4-Chlorotoluene	< .001	mg/l			WG589660	04/26/12 08:17
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG589660	04/26/12 08:17
Acetone	< .05	mg/l			WG589660	04/26/12 08:17
Acrolein	< .025	mg/l			WG589660	04/26/12 08:17
Acrylonitrile	< .01	mg/l			WG589660	04/26/12 08:17
Benzene	< .001	mg/l			WG589660	04/26/12 08:17
Bromobenzene	< .001	mg/l			WG589660	04/26/12 08:17
Bromodichloromethane	< .001	mg/l			WG589660	04/26/12 08:17
Bromoform	< .001	mg/l			WG589660	04/26/12 08:17
Bromomethane	< .005	mg/l			WG589660	04/26/12 08:17
Carbon tetrachloride	< .001	mg/l			WG589660	04/26/12 08:17
Chlorobenzene	< .001	mg/l			WG589660	04/26/12 08:17
Chlorodibromomethane	< .001	mg/l			WG589660	04/26/12 08:17
Chloroethane	< .005	mg/l			WG589660	04/26/12 08:17
Chloroform	< .005	mg/l			WG589660	04/26/12 08:17
Chloromethane	< .0025	mg/l			WG589660	04/26/12 08:17
cis-1,2-Dichloroethene	< .001	mg/l			WG589660	04/26/12 08:17
cis-1,3-Dichloropropene	< .001	mg/l			WG589660	04/26/12 08:17
Di-isopropyl ether	< .001	mg/l			WG589660	04/26/12 08:17
Dibromomethane	< .001	mg/l			WG589660	04/26/12 08:17
Dichlorodifluoromethane	< .005	mg/l			WG589660	04/26/12 08:17
Ethylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
Hexachloro-1,3-butadiene	< .001	mg/l			WG589660	04/26/12 08:17
Isopropylbenzene	< .001	mg/l			WG589660	04/26/12 08:17

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

12065 Lebanon Rd.
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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Methyl tert-butyl ether	< .001	mg/l			WG589660	04/26/12 08:17
Methylene Chloride	< .005	mg/l			WG589660	04/26/12 08:17
n-Butylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
n-Propylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
Naphthalene	< .005	mg/l			WG589660	04/26/12 08:17
p-Isopropyltoluene	< .001	mg/l			WG589660	04/26/12 08:17
sec-Butylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
Styrene	< .001	mg/l			WG589660	04/26/12 08:17
tert-Butylbenzene	< .001	mg/l			WG589660	04/26/12 08:17
Tetrachloroethene	< .001	mg/l			WG589660	04/26/12 08:17
Toluene	< .005	mg/l			WG589660	04/26/12 08:17
trans-1,2-Dichloroethene	< .001	mg/l			WG589660	04/26/12 08:17
trans-1,3-Dichloropropene	< .001	mg/l			WG589660	04/26/12 08:17
Trichloroethene	< .001	mg/l			WG589660	04/26/12 08:17
Trichlorofluoromethane	< .005	mg/l			WG589660	04/26/12 08:17
Vinyl chloride	< .001	mg/l			WG589660	04/26/12 08:17
Xylenes, Total	< .003	mg/l			WG589660	04/26/12 08:17
4-Bromofluorobenzene		% Rec.	97.38	82-120	WG589660	04/26/12 08:17
Dibromofluoromethane		% Rec.	99.71	82-126	WG589660	04/26/12 08:17
Toluene-d8		% Rec.	101.2	92-112	WG589660	04/26/12 08:17

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0253	101.	77-128	WG589483
1,1,1-Trichloroethane	mg/l	.025	0.0281	112.	71-126	WG589483
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0231	92.2	78-130	WG589483
1,1,2-Trichloroethane	mg/l	.025	0.0245	98.0	81-121	WG589483
1,1-Dichloroethane	mg/l	.025	0.0259	104.	73-123	WG589483
1,1-Dichloroethene	mg/l	.025	0.0260	104.	54-134	WG589483
1,1-Dichloropropene	mg/l	.025	0.0259	104.	67-127	WG589483
1,2,3-Trichlorobenzene	mg/l	.025	0.0257	103.	77-130	WG589483
1,2,3-Trichloropropane	mg/l	.025	0.0246	98.4	68-130	WG589483
1,2,4-Trichlorobenzene	mg/l	.025	0.0253	101.	76-127	WG589483
1,2,4-Trimethylbenzene	mg/l	.025	0.0248	99.1	77-129	WG589483
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0227	91.0	55-142	WG589483
1,2-Dibromoethane	mg/l	.025	0.0231	92.6	78-124	WG589483
1,2-Dichlorobenzene	mg/l	.025	0.0250	100.	82-121	WG589483
1,2-Dichloroethane	mg/l	.025	0.0271	108.	69-128	WG589483
1,2-Dichloropropane	mg/l	.025	0.0244	97.6	77-121	WG589483
1,3,5-Trimethylbenzene	mg/l	.025	0.0259	104.	78-127	WG589483
1,3-Dichlorobenzene	mg/l	.025	0.0256	102.	77-127	WG589483
1,3-Dichloropropane	mg/l	.025	0.0225	89.8	78-117	WG589483
1,4-Dichlorobenzene	mg/l	.025	0.0251	101.	79-117	WG589483
2,2-Dichloropropane	mg/l	.025	0.0292	117.	63-130	WG589483
2-Butanone (MEK)	mg/l	.125	0.151	121.	58-144	WG589483
2-Chloroethyl vinyl ether	mg/l	.125	0.122	97.3	26-172	WG589483
2-Chlorotoluene	mg/l	.025	0.0254	101.	78-123	WG589483
4-Chlorotoluene	mg/l	.025	0.0246	98.3	78-122	WG589483
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.131	105.	58-147	WG589483
Acetone	mg/l	.125	0.198	158.*	49-153	WG589483
Acrolein	mg/l	.125	0.125	100.	10-181	WG589483
Acrylonitrile	mg/l	.125	0.142	113.	53-153	WG589483
Benzene	mg/l	.025	0.0261	104.	72-119	WG589483
Bromobenzene	mg/l	.025	0.0237	94.8	76-121	WG589483
Bromodichloromethane	mg/l	.025	0.0265	106.	75-127	WG589483
Bromoform	mg/l	.025	0.0240	96.0	61-136	WG589483
Bromomethane	mg/l	.025	0.0294	117.	42-172	WG589483
Carbon tetrachloride	mg/l	.025	0.0281	113.	63-129	WG589483

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Quality Assurance Report
Level II

L571654

April 26, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Chlorobenzene	mg/l	.025	0.0250	100.	78-123	WG589483
Chlorodibromomethane	mg/l	.025	0.0241	96.5	73-128	WG589483
Chloroethane	mg/l	.025	0.0289	115.	52-164	WG589483
Chloroform	mg/l	.025	0.0270	108.	76-122	WG589483
Chloromethane	mg/l	.025	0.0289	116.	50-141	WG589483
cis-1,2-Dichloroethene	mg/l	.025	0.0262	105.	75-121	WG589483
cis-1,3-Dichloropropene	mg/l	.025	0.0259	104.	74-124	WG589483
Di-isopropyl ether	mg/l	.025	0.0279	111.	66-129	WG589483
Dibromomethane	mg/l	.025	0.0256	102.	77-124	WG589483
Dichlorodifluoromethane	mg/l	.025	0.0313	125.	33-173	WG589483
Ethylbenzene	mg/l	.025	0.0255	102.	77-124	WG589483
Hexachloro-1,3-butadiene	mg/l	.025	0.0255	102.	71-134	WG589483
Isopropylbenzene	mg/l	.025	0.0266	107.	74-126	WG589483
Methyl tert-butyl ether	mg/l	.025	0.0273	109.	67-127	WG589483
Methylene Chloride	mg/l	.025	0.0240	96.1	67-122	WG589483
n-Butylbenzene	mg/l	.025	0.0264	105.	74-130	WG589483
n-Propylbenzene	mg/l	.025	0.0249	99.6	77-125	WG589483
Naphthalene	mg/l	.025	0.0242	96.9	70-134	WG589483
p-Isopropyltoluene	mg/l	.025	0.0265	106.	77-132	WG589483
sec-Butylbenzene	mg/l	.025	0.0255	102.	77-130	WG589483
Styrene	mg/l	.025	0.0251	100.	69-145	WG589483
tert-Butylbenzene	mg/l	.025	0.0263	105.	76-131	WG589483
Tetrachloroethene	mg/l	.025	0.0242	96.8	69-131	WG589483
Toluene	mg/l	.025	0.0249	99.8	75-114	WG589483
trans-1,2-Dichloroethene	mg/l	.025	0.0253	101.	63-127	WG589483
trans-1,3-Dichloropropene	mg/l	.025	0.0248	99.2	69-124	WG589483
Trichloroethene	mg/l	.025	0.0264	105.	69-131	WG589483
Trichlorofluoromethane	mg/l	.025	0.0299	119.	53-161	WG589483
Vinyl chloride	mg/l	.025	0.0255	102.	55-142	WG589483
Xylenes, Total	mg/l	.075	0.0741	98.8	77-123	WG589483
4-Bromofluorobenzene				98.87	82-120	WG589483
Dibromofluoromethane				102.9	82-126	WG589483
Toluene-d8				101.4	92-112	WG589483
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0256	102.	77-128	WG589660
1,1,1-Trichloroethane	mg/l	.025	0.0259	104.	71-126	WG589660
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0260	104.	78-130	WG589660
1,1,2-Trichloroethane	mg/l	.025	0.0250	100.	81-121	WG589660
1,1-Dichloroethane	mg/l	.025	0.0243	97.1	73-123	WG589660
1,1-Dichloroethene	mg/l	.025	0.0266	106.	54-134	WG589660
1,1-Dichloropropene	mg/l	.025	0.0256	102.	67-127	WG589660
1,2,3-Trichlorobenzene	mg/l	.025	0.0251	100.	77-130	WG589660
1,2,3-Trichloropropane	mg/l	.025	0.0266	106.	68-130	WG589660
1,2,4-Trichlorobenzene	mg/l	.025	0.0249	99.6	76-127	WG589660
1,2,4-Trimethylbenzene	mg/l	.025	0.0251	101.	77-129	WG589660
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0237	95.0	55-142	WG589660
1,2-Dibromoethane	mg/l	.025	0.0243	97.1	78-124	WG589660
1,2-Dichlorobenzene	mg/l	.025	0.0249	99.6	82-121	WG589660
1,2-Dichloroethane	mg/l	.025	0.0231	92.6	69-128	WG589660
1,2-Dichloropropane	mg/l	.025	0.0249	99.6	77-121	WG589660
1,3,5-Trimethylbenzene	mg/l	.025	0.0259	103.	78-127	WG589660
1,3-Dichlorobenzene	mg/l	.025	0.0251	100.	77-127	WG589660
1,3-Dichloropropane	mg/l	.025	0.0230	92.0	78-117	WG589660
1,4-Dichlorobenzene	mg/l	.025	0.0247	98.8	79-117	WG589660
2,2-Dichloropropane	mg/l	.025	0.0279	111.	63-130	WG589660
2-Butanone (MEK)	mg/l	.125	0.132	106.	58-144	WG589660
2-Chloroethyl vinyl ether	mg/l	.125	0.117	93.5	26-172	WG589660
2-Chlorotoluene	mg/l	.025	0.0249	99.6	78-123	WG589660

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Level II

L571654

April 26, 2012

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
4-Chlorotoluene	mg/l	.025	0.0243	97.3	78-122	WG589660
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.126	101.	58-147	WG589660
Acetone	mg/l	.125	0.125	100.	49-153	WG589660
Acrolein	mg/l	.125	0.109	87.4	10-181	WG589660
Acrylonitrile	mg/l	.125	0.114	91.5	53-153	WG589660
Benzene	mg/l	.025	0.0239	95.7	72-119	WG589660
Bromobenzene	mg/l	.025	0.0239	95.6	76-121	WG589660
Bromodichloromethane	mg/l	.025	0.0238	95.2	75-127	WG589660
Bromoform	mg/l	.025	0.0249	99.8	61-136	WG589660
Bromomethane	mg/l	.025	0.0316	126.	42-172	WG589660
Carbon tetrachloride	mg/l	.025	0.0266	107.	63-129	WG589660
Chlorobenzene	mg/l	.025	0.0249	99.7	78-123	WG589660
Chlorodibromomethane	mg/l	.025	0.0243	97.1	73-128	WG589660
Chloroethane	mg/l	.025	0.0258	103.	52-164	WG589660
Chloroform	mg/l	.025	0.0243	97.3	76-122	WG589660
Chloromethane	mg/l	.025	0.0230	92.1	50-141	WG589660
cis-1,2-Dichloroethene	mg/l	.025	0.0243	97.2	75-121	WG589660
cis-1,3-Dichloropropene	mg/l	.025	0.0231	92.6	74-124	WG589660
Di-isopropyl ether	mg/l	.025	0.0243	97.1	66-129	WG589660
Dibromomethane	mg/l	.025	0.0249	99.8	77-124	WG589660
Dichlorodifluoromethane	mg/l	.025	0.0257	103.	33-173	WG589660
Ethylbenzene	mg/l	.025	0.0263	105.	77-124	WG589660
Hexachloro-1,3-butadiene	mg/l	.025	0.0269	108.	71-134	WG589660
Isopropylbenzene	mg/l	.025	0.0281	112.	74-126	WG589660
Methyl tert-butyl ether	mg/l	.025	0.0240	96.1	67-127	WG589660
Methylene Chloride	mg/l	.025	0.0229	91.7	67-122	WG589660
n-Butylbenzene	mg/l	.025	0.0264	105.	74-130	WG589660
n-Propylbenzene	mg/l	.025	0.0263	105.	77-125	WG589660
Naphthalene	mg/l	.025	0.0242	96.7	70-134	WG589660
p-Isopropyltoluene	mg/l	.025	0.0267	107.	77-132	WG589660
sec-Butylbenzene	mg/l	.025	0.0262	105.	77-130	WG589660
Styrene	mg/l	.025	0.0246	98.6	69-145	WG589660
tert-Butylbenzene	mg/l	.025	0.0269	108.	76-131	WG589660
Tetrachloroethene	mg/l	.025	0.0281	113.	69-131	WG589660
Toluene	mg/l	.025	0.0252	101.	75-114	WG589660
trans-1,2-Dichloroethene	mg/l	.025	0.0246	98.5	63-127	WG589660
trans-1,3-Dichloropropene	mg/l	.025	0.0232	92.8	69-124	WG589660
Trichloroethene	mg/l	.025	0.0262	105.	69-131	WG589660
Trichlorofluoromethane	mg/l	.025	0.0295	118.	53-161	WG589660
Vinyl chloride	mg/l	.025	0.0247	98.6	55-142	WG589660
Xylenes, Total	mg/l	.075	0.0777	104.	77-123	WG589660
4-Bromofluorobenzene				94.01	82-120	WG589660
Dibromofluoromethane				96.55	82-126	WG589660
Toluene-d8				98.20	92-112	WG589660

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0256	0.0253	102.	77-128	1.41	20	WG589483
1,1,1-Trichloroethane	mg/l	0.0288	0.0281	115.	71-126	2.55	20	WG589483
1,1,2,2-Tetrachloroethane	mg/l	0.0243	0.0231	97.0	78-130	5.44	20	WG589483
1,1,2-Trichloroethane	mg/l	0.0263	0.0245	105.	81-121	6.97	20	WG589483
1,1-Dichloroethane	mg/l	0.0265	0.0259	106.	73-123	2.09	20	WG589483
1,1-Dichloroethene	mg/l	0.0258	0.0260	103.	54-134	0.770	20	WG589483
1,1-Dichloropropene	mg/l	0.0264	0.0259	106.	67-127	1.89	20	WG589483
1,2,3-Trichlorobenzene	mg/l	0.0257	0.0257	103.	77-130	0.0100	20	WG589483
1,2,3-Trichloropropane	mg/l	0.0249	0.0246	99.0	68-130	1.00	20	WG589483
1,2,4-Trichlorobenzene	mg/l	0.0250	0.0253	100.	76-127	0.890	20	WG589483
1,2,4-Trimethylbenzene	mg/l	0.0258	0.0248	103.	77-129	3.88	20	WG589483

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

		Laboratory Control Sample Duplicate						
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,2-Dibromo-3-Chloropropane	mg/l	0.0250	0.0227	100.	55-142	9.46	20	WG589483
1,2-Dibromoethane	mg/l	0.0244	0.0231	97.0	78-124	5.11	20	WG589483
1,2-Dichlorobenzene	mg/l	0.0251	0.0250	100.	82-121	0.220	20	WG589483
1,2-Dichloroethane	mg/l	0.0280	0.0271	112.	69-128	3.19	20	WG589483
1,2-Dichloropropane	mg/l	0.0254	0.0244	102.	77-121	4.15	20	WG589483
1,3,5-Trimethylbenzene	mg/l	0.0268	0.0259	107.	78-127	3.57	20	WG589483
1,3-Dichlorobenzene	mg/l	0.0259	0.0256	103.	77-127	1.03	20	WG589483
1,3-Dichloropropane	mg/l	0.0236	0.0225	94.0	78-117	5.04	20	WG589483
1,4-Dichlorobenzene	mg/l	0.0246	0.0251	98.0	79-117	2.32	20	WG589483
2,2-Dichloropropane	mg/l	0.0298	0.0292	119.	63-130	2.16	20	WG589483
2-Butanone (MEK)	mg/l	0.155	0.151	124.	58-144	2.72	20	WG589483
2-Chloroethyl vinyl ether	mg/l	0.127	0.122	101.	26-172	4.09	22	WG589483
2-Chlorotoluene	mg/l	0.0258	0.0254	103.	78-123	1.88	20	WG589483
4-Chlorotoluene	mg/l	0.0259	0.0246	103.	78-122	5.02	20	WG589483
4-Methyl-2-pentanone (MIBK)	mg/l	0.139	0.131	111.	58-147	5.53	20	WG589483
Acetone	mg/l	0.195	0.198	156*	49-153	1.41	21	WG589483
Acrolein	mg/l	0.126	0.125	100.	10-181	0.280	30	WG589483
Acrylonitrile	mg/l	0.140	0.142	112.	53-153	1.14	20	WG589483
Benzene	mg/l	0.0261	0.0261	104.	72-119	0.110	20	WG589483
Bromobenzene	mg/l	0.0244	0.0237	98.0	76-121	3.10	20	WG589483
Bromodichloromethane	mg/l	0.0259	0.0265	104.	75-127	2.27	20	WG589483
Bromoform	mg/l	0.0255	0.0240	102.	61-136	5.91	20	WG589483
Bromomethane	mg/l	0.0274	0.0294	110.	42-172	6.85	20	WG589483
Carbon tetrachloride	mg/l	0.0285	0.0281	114.	63-129	1.15	20	WG589483
Chlorobenzene	mg/l	0.0259	0.0250	103.	78-123	3.31	20	WG589483
Chlorodibromomethane	mg/l	0.0253	0.0241	101.	73-128	4.81	20	WG589483
Chloroethane	mg/l	0.0283	0.0289	113.	52-164	2.00	20	WG589483
Chloroform	mg/l	0.0276	0.0270	110.	76-122	2.27	20	WG589483
Chloromethane	mg/l	0.0283	0.0289	113.	50-141	2.38	20	WG589483
cis-1,2-Dichloroethene	mg/l	0.0260	0.0262	104.	75-121	0.600	20	WG589483
cis-1,3-Dichloropropene	mg/l	0.0261	0.0259	104.	74-124	0.610	20	WG589483
Di-isopropyl ether	mg/l	0.0281	0.0279	112.	66-129	0.970	20	WG589483
Dibromomethane	mg/l	0.0255	0.0256	102.	77-124	0.470	20	WG589483
Dichlorodifluoromethane	mg/l	0.0316	0.0313	126.	33-173	0.940	20	WG589483
Ethylbenzene	mg/l	0.0265	0.0255	106.	77-124	3.74	20	WG589483
Hexachloro-1,3-butadiene	mg/l	0.0261	0.0255	104.	71-134	2.19	20	WG589483
Isopropylbenzene	mg/l	0.0275	0.0266	110.	74-126	3.30	20	WG589483
Methyl tert-butyl ether	mg/l	0.0266	0.0273	106.	67-127	2.50	20	WG589483
Methylene Chloride	mg/l	0.0253	0.0240	101.	67-122	5.01	20	WG589483
n-Butylbenzene	mg/l	0.0267	0.0264	107.	74-130	1.41	20	WG589483
n-Propylbenzene	mg/l	0.0260	0.0249	104.	77-125	4.45	20	WG589483
Naphthalene	mg/l	0.0246	0.0242	98.0	70-134	1.44	20	WG589483
p-Isopropyltoluene	mg/l	0.0271	0.0265	108.	77-132	1.97	20	WG589483
sec-Butylbenzene	mg/l	0.0269	0.0255	108.	77-130	5.30	20	WG589483
Styrene	mg/l	0.0263	0.0251	105.	69-145	4.77	20	WG589483
tert-Butylbenzene	mg/l	0.0270	0.0263	108.	76-131	2.77	20	WG589483
Tetrachloroethene	mg/l	0.0251	0.0242	100.	69-131	3.73	20	WG589483
Toluene	mg/l	0.0255	0.0249	102.	75-114	2.31	20	WG589483
trans-1,2-Dichloroethene	mg/l	0.0257	0.0253	103.	63-127	1.52	20	WG589483
trans-1,3-Dichloropropene	mg/l	0.0258	0.0248	103.	69-124	3.85	20	WG589483
Trichloroethene	mg/l	0.0253	0.0264	101.	69-131	4.14	20	WG589483
Trichlorofluoromethane	mg/l	0.0299	0.0299	120.	53-161	0.110	20	WG589483
Vinyl chloride	mg/l	0.0254	0.0255	102.	55-142	0.360	20	WG589483
Xylenes, Total	mg/l	0.0769	0.0741	102.	77-123	3.72	20	WG589483
4-Bromofluorobenzene				99.25	82-120			WG589483
Dibromofluoromethane				105.2	82-126			WG589483
Toluene-d8				101.6	92-112			WG589483

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Lee & Ryan Environmental
Mr. Scott Randall
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Quality Assurance Report
Level II

L571654

April 26, 2012

		Laboratory Control Sample Duplicate						
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0248	0.0256	99.0	77-128	3.16	20	WG589660
1,1,1-Trichloroethane	mg/l	0.0260	0.0259	104.	71-126	0.180	20	WG589660
1,1,2,2-Tetrachloroethane	mg/l	0.0244	0.0260	98.0	78-130	6.33	20	WG589660
1,1,2-Trichloroethane	mg/l	0.0236	0.0250	94.0	81-121	5.92	20	WG589660
1,1-Dichloroethane	mg/l	0.0234	0.0243	93.0	73-123	3.86	20	WG589660
1,1-Dichloroethene	mg/l	0.0252	0.0266	101.	54-134	5.35	20	WG589660
1,1-Dichloropropene	mg/l	0.0256	0.0256	102.	67-127	0.170	20	WG589660
1,2,3-Trichlorobenzene	mg/l	0.0221	0.0251	88.0	77-130	12.6	20	WG589660
1,2,3-Trichloropropane	mg/l	0.0248	0.0266	99.0	68-130	6.86	20	WG589660
1,2,4-Trichlorobenzene	mg/l	0.0226	0.0249	90.0	76-127	9.86	20	WG589660
1,2,4-Trimethylbenzene	mg/l	0.0247	0.0251	99.0	77-129	1.77	20	WG589660
1,2-Dibromo-3-Chloropropane	mg/l	0.0204	0.0237	82.0	55-142	15.1	20	WG589660
1,2-Dibromoethane	mg/l	0.0236	0.0243	94.0	78-124	2.74	20	WG589660
1,2-Dichlorobenzene	mg/l	0.0224	0.0249	90.0	82-121	10.5	20	WG589660
1,2-Dichloroethane	mg/l	0.0219	0.0231	88.0	69-128	5.55	20	WG589660
1,2-Dichloropropane	mg/l	0.0235	0.0249	94.0	77-121	5.89	20	WG589660
1,3,5-Trimethylbenzene	mg/l	0.0255	0.0259	102.	78-127	1.23	20	WG589660
1,3-Dichlorobenzene	mg/l	0.0246	0.0251	98.0	77-127	1.93	20	WG589660
1,3-Dichloropropane	mg/l	0.0231	0.0230	92.0	78-117	0.560	20	WG589660
1,4-Dichlorobenzene	mg/l	0.0230	0.0247	92.0	79-117	7.32	20	WG589660
2,2-Dichloropropane	mg/l	0.0273	0.0279	109.	63-130	2.05	20	WG589660
2-Butanone (MEK)	mg/l	0.118	0.132	94.0	58-144	11.8	20	WG589660
2-Chloroethyl vinyl ether	mg/l	0.108	0.117	86.0	26-172	7.76	22	WG589660
2-Chlorotoluene	mg/l	0.0247	0.0249	99.0	78-123	0.900	20	WG589660
4-Chlorotoluene	mg/l	0.0240	0.0243	96.0	78-122	1.53	20	WG589660
4-Methyl-2-pentanone (MIBK)	mg/l	0.112	0.126	89.0	58-147	12.4	20	WG589660
Acetone	mg/l	0.107	0.125	86.0	49-153	15.5	21	WG589660
Acrolein	mg/l	0.0954	0.109	76.0	10-181	13.6	30	WG589660
Acrylonitrile	mg/l	0.102	0.114	82.0	53-153	11.0	20	WG589660
Benzene	mg/l	0.0232	0.0239	93.0	72-119	3.17	20	WG589660
Bromobenzene	mg/l	0.0238	0.0239	95.0	76-121	0.430	20	WG589660
Bromodichloromethane	mg/l	0.0230	0.0238	92.0	75-127	3.22	20	WG589660
Bromoform	mg/l	0.0240	0.0249	96.0	61-136	3.66	20	WG589660
Bromomethane	mg/l	0.0300	0.0316	120.	42-172	5.05	20	WG589660
Carbon tetrachloride	mg/l	0.0259	0.0266	104.	63-129	2.75	20	WG589660
Chlorobenzene	mg/l	0.0242	0.0249	97.0	78-123	2.89	20	WG589660
Chlorodibromomethane	mg/l	0.0232	0.0243	93.0	73-128	4.74	20	WG589660
Chloroethane	mg/l	0.0260	0.0258	104.	52-164	0.880	20	WG589660
Chloroform	mg/l	0.0237	0.0243	95.0	76-122	2.75	20	WG589660
Chloromethane	mg/l	0.0221	0.0230	88.0	50-141	4.06	20	WG589660
cis-1,2-Dichloroethene	mg/l	0.0235	0.0243	94.0	75-121	3.17	20	WG589660
cis-1,3-Dichloropropene	mg/l	0.0227	0.0231	91.0	74-124	1.82	20	WG589660
Di-isopropyl ether	mg/l	0.0233	0.0243	93.0	66-129	3.98	20	WG589660
Dibromomethane	mg/l	0.0237	0.0249	95.0	77-124	5.27	20	WG589660
Dichlorodifluoromethane	mg/l	0.0255	0.0257	102.	33-173	0.640	20	WG589660
Ethylbenzene	mg/l	0.0266	0.0263	106.	77-124	1.14	20	WG589660
Hexachloro-1,3-butadiene	mg/l	0.0238	0.0269	95.0	71-134	12.4	20	WG589660
Isopropylbenzene	mg/l	0.0274	0.0281	110.	74-126	2.55	20	WG589660
Methyl tert-butyl ether	mg/l	0.0227	0.0240	91.0	67-127	5.68	20	WG589660
Methylene Chloride	mg/l	0.0214	0.0229	86.0	67-122	6.96	20	WG589660
n-Butylbenzene	mg/l	0.0241	0.0264	96.0	74-130	8.91	20	WG589660
n-Propylbenzene	mg/l	0.0261	0.0263	104.	77-125	1.04	20	WG589660
Naphthalene	mg/l	0.0210	0.0242	84.0	70-134	14.3	20	WG589660
p-Isopropyltoluene	mg/l	0.0266	0.0267	106.	77-132	0.310	20	WG589660
sec-Butylbenzene	mg/l	0.0259	0.0262	104.	77-130	1.17	20	WG589660
Styrene	mg/l	0.0250	0.0246	100.	69-145	1.58	20	WG589660
tert-Butylbenzene	mg/l	0.0268	0.0269	107.	76-131	0.340	20	WG589660
Tetrachloroethene	mg/l	0.0277	0.0281	111.	69-131	1.64	20	WG589660
Toluene	mg/l	0.0245	0.0252	98.0	75-114	2.83	20	WG589660

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Quality Assurance Report
Level II

L571654

April 26, 2012

Analyte	Units	Laboratory Control Sample Duplicate Result	Ref	%Rec	Limit	RPD	Limit	Batch
trans-1,2-Dichloroethene	mg/l	0.0233	0.0246	93.0	63-127	5.63	20	WG589660
trans-1,3-Dichloropropene	mg/l	0.0221	0.0232	88.0	69-124	4.71	20	WG589660
Trichloroethene	mg/l	0.0243	0.0262	97.0	69-131	7.51	20	WG589660
Trichlorofluoromethane	mg/l	0.0293	0.0295	117.	53-161	0.540	20	WG589660
Vinyl chloride	mg/l	0.0246	0.0247	98.0	55-142	0.190	20	WG589660
Xylenes, Total	mg/l	0.0769	0.0777	102.	77-123	1.01	20	WG589660
4-Bromofluorobenzene				104.4	82-120			WG589660
Dibromofluoromethane				94.14	82-126			WG589660
Toluene-d8				101.6	92-112			WG589660

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0234	0	.025	93.4	71-130	L571101-03	WG589483
1,1,1-Trichloroethane	mg/l	0.0256	0	.025	102.	58-137	L571101-03	WG589483
1,1,2,2-Tetrachloroethane	mg/l	0.0224	0	.025	89.5	64-149	L571101-03	WG589483
1,1,2-Trichloroethane	mg/l	0.0230	0	.025	92.0	73-128	L571101-03	WG589483
1,1-Dichloroethane	mg/l	0.0232	0	.025	92.8	58-133	L571101-03	WG589483
1,1-Dichloroethene	mg/l	0.0236	0	.025	94.4	32-152	L571101-03	WG589483
1,1-Dichloropropene	mg/l	0.0239	0	.025	95.4	50-140	L571101-03	WG589483
1,2,3-Trichlorobenzene	mg/l	0.0233	0	.025	93.4	68-135	L571101-03	WG589483
1,2,3-Trichloropropane	mg/l	0.0237	0	.025	95.0	74-137	L571101-03	WG589483
1,2,4-Trichlorobenzene	mg/l	0.0234	0	.025	93.7	67-133	L571101-03	WG589483
1,2,4-Trimethylbenzene	mg/l	0.0230	0	.025	92.0	62-141	L571101-03	WG589483
1,2-Dibromo-3-Chloropropane	mg/l	0.0243	0	.025	97.0	55-148	L571101-03	WG589483
1,2-Dibromoethane	mg/l	0.0234	0	.025	93.8	71-129	L571101-03	WG589483
1,2-Dichlorobenzene	mg/l	0.0226	0	.025	90.3	75-125	L571101-03	WG589483
1,2-Dichloroethane	mg/l	0.0246	0	.025	98.3	59-135	L571101-03	WG589483
1,2-Dichloropropane	mg/l	0.0237	0	.025	94.9	68-126	L571101-03	WG589483
1,3,5-Trimethylbenzene	mg/l	0.0245	0	.025	98.0	67-136	L571101-03	WG589483
1,3-Dichlorobenzene	mg/l	0.0239	0	.025	95.8	69-131	L571101-03	WG589483
1,3-Dichloropropane	mg/l	0.0224	0	.025	89.6	70-122	L571101-03	WG589483
1,4-Dichlorobenzene	mg/l	0.0224	0	.025	89.5	70-123	L571101-03	WG589483
2,2-Dichloropropane	mg/l	0.0270	0	.025	108.	51-141	L571101-03	WG589483
2-Butanone (MEK)	mg/l	0.107	0	.125	85.8	51-149	L571101-03	WG589483
2-Chloroethyl vinyl ether	mg/l	0.000435	0	.125	0.348*	10-161	L571101-03	WG589483
2-Chlorotoluene	mg/l	0.0234	0	.025	93.5	65-133	L571101-03	WG589483
4-Chlorotoluene	mg/l	0.0236	0	.025	94.4	67-129	L571101-03	WG589483
4-Methyl-2-pentanone (MIBK)	mg/l	0.123	0	.125	98.8	53-154	L571101-03	WG589483
Acetone	mg/l	0.116	0	.125	92.5	34-146	L571101-03	WG589483
Acrolein	mg/l	0.133	0	.125	106.	10-189	L571101-03	WG589483
Acrylonitrile	mg/l	0.125	0	.125	99.9	49-162	L571101-03	WG589483
Benzene	mg/l	0.0239	0	.025	95.5	51-134	L571101-03	WG589483
Bromobenzene	mg/l	0.0225	0	.025	90.0	64-130	L571101-03	WG589483
Bromodichloromethane	mg/l	0.0247	0	.025	98.7	67-132	L571101-03	WG589483
Bromoform	mg/l	0.0240	0	.025	96.1	59-137	L571101-03	WG589483
Bromomethane	mg/l	0.0243	0	.025	97.1	23-177	L571101-03	WG589483
Carbon tetrachloride	mg/l	0.0244	0	.025	97.6	49-140	L571101-03	WG589483
Chlorobenzene	mg/l	0.0232	0	.025	92.9	69-126	L571101-03	WG589483
Chlorodibromomethane	mg/l	0.0233	0	.025	93.4	68-130	L571101-03	WG589483
Chloroethane	mg/l	0.0253	0	.025	101.	32-177	L571101-03	WG589483
Chloroform	mg/l	0.0248	0	.025	99.0	64-130	L571101-03	WG589483
Chloromethane	mg/l	0.0255	0	.025	102.	27-155	L571101-03	WG589483
cis-1,2-Dichloroethene	mg/l	0.0238	0	.025	95.3	54-137	L571101-03	WG589483
cis-1,3-Dichloropropene	mg/l	0.0243	0	.025	97.3	63-127	L571101-03	WG589483
Di-isopropyl ether	mg/l	0.0252	0	.025	101.	58-133	L571101-03	WG589483
Dibromomethane	mg/l	0.0243	0	.025	97.1	68-131	L571101-03	WG589483
Dichlorodifluoromethane	mg/l	0.0272	0	.025	109.	16-188	L571101-03	WG589483
Ethylbenzene	mg/l	0.0239	0	.025	95.4	64-135	L571101-03	WG589483

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Quality Assurance Report
Level II

L571654

April 26, 2012

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Hexachloro-1,3-butadiene	mg/l	0.0227	0	.025	90.6	64-140	L571101-03	WG589483
Isopropylbenzene	mg/l	0.0249	0	.025	99.4	62-134	L571101-03	WG589483
Methyl tert-butyl ether	mg/l	0.0242	0	.025	96.6	55-136	L571101-03	WG589483
Methylene Chloride	mg/l	0.0226	0	.025	90.4	52-130	L571101-03	WG589483
n-Butylbenzene	mg/l	0.0238	0	.025	95.4	62-142	L571101-03	WG589483
n-Propylbenzene	mg/l	0.0237	0	.025	94.7	62-137	L571101-03	WG589483
Naphthalene	mg/l	0.0224	0	.025	89.6	65-140	L571101-03	WG589483
p-Isopropyltoluene	mg/l	0.0246	0	.025	98.5	64-142	L571101-03	WG589483
sec-Butylbenzene	mg/l	0.0243	0	.025	97.2	67-139	L571101-03	WG589483
Styrene	mg/l	0.0240	0	.025	96.0	58-152	L571101-03	WG589483
tert-Butylbenzene	mg/l	0.0248	0	.025	99.4	66-139	L571101-03	WG589483
Tetrachloroethene	mg/l	0.0224	0	.025	89.6	56-139	L571101-03	WG589483
Toluene	mg/l	0.0241	0	.025	96.4	61-126	L571101-03	WG589483
trans-1,2-Dichloroethene	mg/l	0.0234	0	.025	93.8	45-137	L571101-03	WG589483
trans-1,3-Dichloropropene	mg/l	0.0239	0	.025	95.8	59-130	L571101-03	WG589483
Trichloroethene	mg/l	0.0234	0	.025	93.7	40-155	L571101-03	WG589483
Trichlorofluoromethane	mg/l	0.0257	0	.025	103.	35-177	L571101-03	WG589483
Vinyl chloride	mg/l	0.0237	0	.025	94.7	32-159	L571101-03	WG589483
Xylenes, Total	mg/l	0.0692	0	.075	92.3	64-133	L571101-03	WG589483
4-Bromofluorobenzene					100.1	82-120		WG589483
Dibromofluoromethane					101.9	82-126		WG589483
Toluene-d8					101.8	92-112		WG589483
1,1,1,2-Tetrachloroethane	mg/l	0.0252	0	.025	101.	71-130	L571654-03	WG589660
1,1,1-Trichloroethane	mg/l	0.0316	0	.025	126.	58-137	L571654-03	WG589660
1,1,2,2-Tetrachloroethane	mg/l	0.0243	0	.025	97.1	64-149	L571654-03	WG589660
1,1,2-Trichloroethane	mg/l	0.0237	0	.025	95.0	73-128	L571654-03	WG589660
1,1-Dichloroethane	mg/l	0.0260	0	.025	104.	58-133	L571654-03	WG589660
1,1-Dichloroethene	mg/l	0.0336	0	.025	134.	32-152	L571654-03	WG589660
1,1-Dichloropropene	mg/l	0.0315	0	.025	126.	50-140	L571654-03	WG589660
1,2,3-Trichlorobenzene	mg/l	0.0241	0	.025	96.4	68-135	L571654-03	WG589660
1,2,3-Trichloropropane	mg/l	0.0238	0	.025	95.1	74-137	L571654-03	WG589660
1,2,4-Trichlorobenzene	mg/l	0.0255	0	.025	102.	67-133	L571654-03	WG589660
1,2,4-Trimethylbenzene	mg/l	0.0281	0	.025	112.	62-141	L571654-03	WG589660
1,2-Dibromo-3-Chloropropane	mg/l	0.0217	0	.025	86.6	55-148	L571654-03	WG589660
1,2-Dibromoethane	mg/l	0.0234	0	.025	93.5	71-129	L571654-03	WG589660
1,2-Dichlorobenzene	mg/l	0.0253	0	.025	101.	75-125	L571654-03	WG589660
1,2-Dichloroethane	mg/l	0.0207	0	.025	82.6	59-135	L571654-03	WG589660
1,2-Dichloropropane	mg/l	0.0246	0	.025	98.4	68-126	L571654-03	WG589660
1,3,5-Trimethylbenzene	mg/l	0.0302	0	.025	121.	67-136	L571654-03	WG589660
1,3-Dichlorobenzene	mg/l	0.0267	0	.025	107.	69-131	L571654-03	WG589660
1,3-Dichloropropane	mg/l	0.0224	0	.025	89.5	70-122	L571654-03	WG589660
1,4-Dichlorobenzene	mg/l	0.0262	0	.025	105.	70-123	L571654-03	WG589660
2,2-Dichloropropane	mg/l	0.0347	0	.025	139.	51-141	L571654-03	WG589660
2-Butanone (MEK)	mg/l	0.136	0.0570	.125	63.6	51-149	L571654-03	WG589660
2-Chloroethyl vinyl ether	mg/l	0.0257	0	.125	20.5	10-161	L571654-03	WG589660
2-Chlorotoluene	mg/l	0.0279	0	.025	112.	65-133	L571654-03	WG589660
4-Chlorotoluene	mg/l	0.0269	0	.025	107.	67-129	L571654-03	WG589660
4-Methyl-2-pentanone (MIBK)	mg/l	0.111	0	.125	88.5	53-154	L571654-03	WG589660
Acetone	mg/l	0.141	0	.125	113.	34-146	L571654-03	WG589660
Acrolein	mg/l	0.121	0	.125	96.4	10-189	L571654-03	WG589660
Acrylonitrile	mg/l	0.101	0	.125	81.1	49-162	L571654-03	WG589660
Benzene	mg/l	0.0251	0	.025	100.	51-134	L571654-03	WG589660
Bromobenzene	mg/l	0.0250	0	.025	99.8	64-130	L571654-03	WG589660
Bromodichloromethane	mg/l	0.0235	0	.025	94.1	67-132	L571654-03	WG589660
Bromoform	mg/l	0.0230	0	.025	91.8	59-137	L571654-03	WG589660
Bromomethane	mg/l	0.0329	0	.025	132.	23-177	L571654-03	WG589660
Carbon tetrachloride	mg/l	0.0325	0	.025	130.	49-140	L571654-03	WG589660

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Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chlorobenzene	mg/l	0.0264	0	.025	106.	69-126	L571654-03	WG589660
Chlorodibromomethane	mg/l	0.0231	0	.025	92.3	68-130	L571654-03	WG589660
Chloroethane	mg/l	0.0308	0	.025	123.	32-177	L571654-03	WG589660
Chloroform	mg/l	0.0254	0	.025	102.	64-130	L571654-03	WG589660
Chloromethane	mg/l	0.0263	0	.025	105.	27-155	L571654-03	WG589660
cis-1,2-Dichloroethene	mg/l	0.0463	0.0240	.025	89.2	54-137	L571654-03	WG589660
cis-1,3-Dichloropropene	mg/l	0.0236	0	.025	94.3	63-127	L571654-03	WG589660
Di-isopropyl ether	mg/l	0.0232	0	.025	92.7	58-133	L571654-03	WG589660
Dibromomethane	mg/l	0.0231	0	.025	92.4	68-131	L571654-03	WG589660
Dichlorodifluoromethane	mg/l	0.0346	0	.025	138.	16-188	L571654-03	WG589660
Ethylbenzene	mg/l	0.0307	0	.025	123.	64-135	L571654-03	WG589660
Hexachloro-1,3-butadiene	mg/l	0.0310	0	.025	124.	64-140	L571654-03	WG589660
Isopropylbenzene	mg/l	0.0338	0	.025	135.*	62-134	L571654-03	WG589660
Methyl tert-butyl ether	mg/l	0.0213	0	.025	85.3	55-136	L571654-03	WG589660
Methylene Chloride	mg/l	0.0220	0	.025	87.8	52-130	L571654-03	WG589660
n-Butylbenzene	mg/l	0.0321	0	.025	128.	62-142	L571654-03	WG589660
n-Propylbenzene	mg/l	0.0317	0	.025	127.	62-137	L571654-03	WG589660
Naphthalene	mg/l	0.0220	0	.025	88.0	65-140	L571654-03	WG589660
p-Isopropyltoluene	mg/l	0.0321	0	.025	128.	64-142	L571654-03	WG589660
sec-Butylbenzene	mg/l	0.0326	0	.025	130.	67-139	L571654-03	WG589660
Styrene	mg/l	0.0266	0	.025	106.	58-152	L571654-03	WG589660
tert-Butylbenzene	mg/l	0.0328	0	.025	131.	66-139	L571654-03	WG589660
Tetrachloroethene	mg/l	0.0355	0	.025	142.*	56-139	L571654-03	WG589660
Toluene	mg/l	0.0276	0	.025	110.	61-126	L571654-03	WG589660
trans-1,2-Dichloroethene	mg/l	0.0281	0	.025	112.	45-137	L571654-03	WG589660
trans-1,3-Dichloropropene	mg/l	0.0223	0	.025	89.3	59-130	L571654-03	WG589660
Trichloroethene	mg/l	0.135	0.120	.025	58.5	40-155	L571654-03	WG589660
Trichlorofluoromethane	mg/l	0.0389	0	.025	156.	35-177	L571654-03	WG589660
Vinyl chloride	mg/l	0.0313	0	.025	125.	32-159	L571654-03	WG589660
Xylenes, Total	mg/l	0.0880	0	.075	117.	64-133	L571654-03	WG589660
4-Bromofluorobenzene					95.57	82-120		WG589660
Dibromofluoromethane					89.79	82-126		WG589660
Toluene-d8					100.1	92-112		WG589660

Analyte	Units	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0233	0.0234	93.2	71-130	0.240	20	L571101-03	WG589483
1,1,1-Trichloroethane	mg/l	0.0266	0.0256	106.	58-137	3.54	20	L571101-03	WG589483
1,1,2,2-Tetrachloroethane	mg/l	0.0234	0.0224	93.7	64-149	4.61	20	L571101-03	WG589483
1,1,2-Trichloroethane	mg/l	0.0248	0.0230	99.1	73-128	7.43	20	L571101-03	WG589483
1,1-Dichloroethane	mg/l	0.0245	0.0232	97.9	58-133	5.35	20	L571101-03	WG589483
1,1-Dichloroethene	mg/l	0.0246	0.0236	98.4	32-152	4.18	20	L571101-03	WG589483
1,1-Dichloropropene	mg/l	0.0242	0.0239	97.0	50-140	1.61	20	L571101-03	WG589483
1,2,3-Trichlorobenzene	mg/l	0.0232	0.0233	92.7	68-135	0.710	20	L571101-03	WG589483
1,2,3-Trichloropropane	mg/l	0.0238	0.0237	95.4	74-137	0.420	20	L571101-03	WG589483
1,2,4-Trichlorobenzene	mg/l	0.0226	0.0234	90.6	67-133	3.43	20	L571101-03	WG589483
1,2,4-Trimethylbenzene	mg/l	0.0230	0.0230	92.2	62-141	0.150	20	L571101-03	WG589483
1,2-Dibromo-3-Chloropropane	mg/l	0.0228	0.0243	91.3	55-148	6.05	22	L571101-03	WG589483
1,2-Dibromoethane	mg/l	0.0228	0.0234	91.2	71-129	2.72	20	L571101-03	WG589483
1,2-Dichlorobenzene	mg/l	0.0235	0.0226	94.1	75-125	4.11	20	L571101-03	WG589483
1,2-Dichloroethane	mg/l	0.0258	0.0246	103.	59-135	5.06	20	L571101-03	WG589483
1,2-Dichloropropane	mg/l	0.0252	0.0237	101.	68-126	6.09	20	L571101-03	WG589483
1,3,5-Trimethylbenzene	mg/l	0.0241	0.0245	96.2	67-136	1.79	20	L571101-03	WG589483
1,3-Dichlorobenzene	mg/l	0.0236	0.0239	94.4	69-131	1.45	20	L571101-03	WG589483
1,3-Dichloropropane	mg/l	0.0228	0.0224	91.2	70-122	1.83	20	L571101-03	WG589483
1,4-Dichlorobenzene	mg/l	0.0226	0.0224	90.3	70-123	0.940	20	L571101-03	WG589483
2,2-Dichloropropane	mg/l	0.0272	0.0270	109.	51-141	0.920	20	L571101-03	WG589483
2-Butanone (MEK)	mg/l	0.116	0.107	92.8	51-149	7.88	22	L571101-03	WG589483

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Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
2-Chloroethyl vinyl ether	mg/l	0	0.000435	0*	10-161	200.*	40	L571101-03	WG589483
2-Chlorotoluene	mg/l	0.0238	0.0234	95.3	65-133	1.99	20	L571101-03	WG589483
4-Chlorotoluene	mg/l	0.0235	0.0236	94.2	67-129	0.230	20	L571101-03	WG589483
4-Methyl-2-pentanone (MIBK)	mg/l	0.133	0.123	106.	53-154	7.60	21	L571101-03	WG589483
Acetone	mg/l	0.120	0.116	96.3	34-146	4.05	22	L571101-03	WG589483
Acrolein	mg/l	0.144	0.133	116.	10-189	8.46	30	L571101-03	WG589483
Acrylonitrile	mg/l	0.129	0.125	103.	49-162	3.42	20	L571101-03	WG589483
Benzene	mg/l	0.0252	0.0239	101.	51-134	5.53	20	L571101-03	WG589483
Bromobenzene	mg/l	0.0227	0.0225	90.7	64-130	0.720	20	L571101-03	WG589483
Bromodichloromethane	mg/l	0.0257	0.0247	103.	67-132	4.18	20	L571101-03	WG589483
Bromoform	mg/l	0.0244	0.0240	97.8	59-137	1.71	20	L571101-03	WG589483
Bromomethane	mg/l	0.0267	0.0243	107.	23-177	9.58	21	L571101-03	WG589483
Carbon tetrachloride	mg/l	0.0257	0.0244	103.	49-140	5.23	20	L571101-03	WG589483
Chlorobenzene	mg/l	0.0238	0.0232	95.3	69-126	2.62	20	L571101-03	WG589483
Chlorodibromomethane	mg/l	0.0226	0.0233	90.4	68-130	3.19	20	L571101-03	WG589483
Chloroethane	mg/l	0.0264	0.0253	106.	32-177	4.36	21	L571101-03	WG589483
Chloroform	mg/l	0.0248	0.0248	99.1	64-130	0.0600	20	L571101-03	WG589483
Chloromethane	mg/l	0.0262	0.0255	105.	27-155	2.62	20	L571101-03	WG589483
cis-1,2-Dichloroethene	mg/l	0.0246	0.0238	98.2	54-137	3.03	20	L571101-03	WG589483
cis-1,3-Dichloropropene	mg/l	0.0266	0.0243	106.	63-127	8.84	20	L571101-03	WG589483
Di-isopropyl ether	mg/l	0.0256	0.0252	102.	58-133	1.49	20	L571101-03	WG589483
Dibromomethane	mg/l	0.0253	0.0243	101.	68-131	3.99	20	L571101-03	WG589483
Dichlorodifluoromethane	mg/l	0.0280	0.0272	112.	16-188	2.92	22	L571101-03	WG589483
Ethylbenzene	mg/l	0.0248	0.0239	99.3	64-135	4.01	20	L571101-03	WG589483
Hexachloro-1,3-butadiene	mg/l	0.0231	0.0227	92.3	64-140	1.84	20	L571101-03	WG589483
Isopropylbenzene	mg/l	0.0255	0.0249	102.	62-134	2.34	20	L571101-03	WG589483
Methyl tert-butyl ether	mg/l	0.0251	0.0242	100.	55-136	3.93	20	L571101-03	WG589483
Methylene Chloride	mg/l	0.0227	0.0226	90.9	52-130	0.570	20	L571101-03	WG589483
n-Butylbenzene	mg/l	0.0244	0.0238	97.5	62-142	2.16	20	L571101-03	WG589483
n-Propylbenzene	mg/l	0.0241	0.0237	96.3	62-137	1.66	20	L571101-03	WG589483
Naphthalene	mg/l	0.0225	0.0224	90.0	65-140	0.420	20	L571101-03	WG589483
p-Isopropyltoluene	mg/l	0.0242	0.0246	97.0	64-142	1.51	20	L571101-03	WG589483
sec-Butylbenzene	mg/l	0.0246	0.0243	98.3	67-139	1.13	20	L571101-03	WG589483
Styrene	mg/l	0.0242	0.0240	96.8	58-152	0.880	20	L571101-03	WG589483
tert-Butylbenzene	mg/l	0.0245	0.0248	98.1	66-139	1.31	20	L571101-03	WG589483
Tetrachloroethene	mg/l	0.0238	0.0224	95.1	56-139	5.94	20	L571101-03	WG589483
Toluene	mg/l	0.0247	0.0241	99.0	61-126	2.61	20	L571101-03	WG589483
trans-1,2-Dichloroethene	mg/l	0.0252	0.0234	101.	45-137	7.40	20	L571101-03	WG589483
trans-1,3-Dichloropropene	mg/l	0.0258	0.0239	103.	59-130	7.51	20	L571101-03	WG589483
Trichloroethene	mg/l	0.0246	0.0234	98.5	40-155	4.96	20	L571101-03	WG589483
Trichlorofluoromethane	mg/l	0.0268	0.0257	107.	35-177	4.19	23	L571101-03	WG589483
Vinyl chloride	mg/l	0.0260	0.0237	104.	32-159	9.30	21	L571101-03	WG589483
Xylenes, Total	mg/l	0.0703	0.0692	93.7	64-133	1.50	20	L571101-03	WG589483
4-Bromofluorobenzene				97.52	82-120				WG589483
Dibromofluoromethane				101.6	82-126				WG589483
Toluene-d8				104.9	92-112				WG589483
1,1,1,2-Tetrachloroethane	mg/l	0.0259	0.0252	104.	71-130	2.99	20	L571654-03	WG589660
1,1,1-Trichloroethane	mg/l	0.0299	0.0316	120.	58-137	5.68	20	L571654-03	WG589660
1,1,2,2-Tetrachloroethane	mg/l	0.0247	0.0243	98.8	64-149	1.72	20	L571654-03	WG589660
1,1,2-Trichloroethane	mg/l	0.0239	0.0237	95.5	73-128	0.580	20	L571654-03	WG589660
1,1-Dichloroethane	mg/l	0.0246	0.0260	98.6	58-133	5.19	20	L571654-03	WG589660
1,1-Dichloroethene	mg/l	0.0301	0.0336	120.	32-152	11.0	20	L571654-03	WG589660
1,1-Dichloropropene	mg/l	0.0298	0.0315	119.	50-140	5.50	20	L571654-03	WG589660
1,2,3-Trichlorobenzene	mg/l	0.0236	0.0241	94.5	68-135	2.02	20	L571654-03	WG589660
1,2,3-Trichloropropane	mg/l	0.0253	0.0238	101.	74-137	6.16	20	L571654-03	WG589660
1,2,4-Trichlorobenzene	mg/l	0.0244	0.0255	97.6	67-133	4.55	20	L571654-03	WG589660
1,2,4-Trimethylbenzene	mg/l	0.0273	0.0281	109.	62-141	2.78	20	L571654-03	WG589660

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Quality Assurance Report
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April 26, 2012

Analyte	Units	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,2-Dibromo-3-Chloropropane	mg/l	0.0205	0.0217	81.9	55-148	5.63	22	L571654-03	WG589660
1,2-Dibromoethane	mg/l	0.0234	0.0234	93.4	71-129	0.0900	20	L571654-03	WG589660
1,2-Dichlorobenzene	mg/l	0.0241	0.0253	96.5	75-125	4.84	20	L571654-03	WG589660
1,2-Dichloroethane	mg/l	0.0211	0.0207	84.5	59-135	2.21	20	L571654-03	WG589660
1,2-Dichloropropane	mg/l	0.0235	0.0246	94.1	68-126	4.42	20	L571654-03	WG589660
1,3,5-Trimethylbenzene	mg/l	0.0292	0.0302	117.	67-136	3.41	20	L571654-03	WG589660
1,3-Dichlorobenzene	mg/l	0.0266	0.0267	106.	69-131	0.620	20	L571654-03	WG589660
1,3-Dichloropropane	mg/l	0.0224	0.0224	89.4	70-122	0.100	20	L571654-03	WG589660
1,4-Dichlorobenzene	mg/l	0.0241	0.0262	96.3	70-123	8.52	20	L571654-03	WG589660
2,2-Dichloropropane	mg/l	0.0327	0.0347	131.	51-141	6.03	20	L571654-03	WG589660
2-Butanone (MEK)	mg/l	0.140	0.136	66.6	51-149	2.79	22	L571654-03	WG589660
2-Chloroethyl vinyl ether	mg/l	0.00595	0.0257	4.76*	10-161	125.*	40	L571654-03	WG589660
2-Chlorotoluene	mg/l	0.0274	0.0279	110.	65-133	1.82	20	L571654-03	WG589660
4-Chlorotoluene	mg/l	0.0267	0.0269	107.	67-129	0.570	20	L571654-03	WG589660
4-Methyl-2-pentanone (MIBK)	mg/l	0.112	0.111	89.6	53-154	1.27	21	L571654-03	WG589660
Acetone	mg/l	0.146	0.141	117.	34-146	3.57	22	L571654-03	WG589660
Acrolein	mg/l	0.125	0.121	100.	10-189	3.75	30	L571654-03	WG589660
Acrylonitrile	mg/l	0.103	0.101	82.5	49-162	1.73	20	L571654-03	WG589660
Benzene	mg/l	0.0240	0.0251	96.2	51-134	4.40	20	L571654-03	WG589660
Bromobenzene	mg/l	0.0250	0.0250	99.9	64-130	0.110	20	L571654-03	WG589660
Bromodichloromethane	mg/l	0.0230	0.0235	91.8	67-132	2.45	20	L571654-03	WG589660
Bromoform	mg/l	0.0236	0.0230	94.2	59-137	2.57	20	L571654-03	WG589660
Bromomethane	mg/l	0.0313	0.0329	125.	23-177	4.98	21	L571654-03	WG589660
Carbon tetrachloride	mg/l	0.0310	0.0325	124.	49-140	4.92	20	L571654-03	WG589660
Chlorobenzene	mg/l	0.0262	0.0264	105.	69-126	0.720	20	L571654-03	WG589660
Chlorodibromomethane	mg/l	0.0241	0.0231	96.5	68-130	4.47	20	L571654-03	WG589660
Chloroethane	mg/l	0.0281	0.0308	112.	32-177	9.26	21	L571654-03	WG589660
Chloroform	mg/l	0.0245	0.0254	98.1	64-130	3.41	20	L571654-03	WG589660
Chloromethane	mg/l	0.0250	0.0263	100.	27-155	5.23	20	L571654-03	WG589660
cis-1,2-Dichloroethene	mg/l	0.0452	0.0463	85.0	54-137	2.31	20	L571654-03	WG589660
cis-1,3-Dichloropropene	mg/l	0.0232	0.0236	92.7	63-127	1.80	20	L571654-03	WG589660
Di-isopropyl ether	mg/l	0.0221	0.0232	88.3	58-133	4.84	20	L571654-03	WG589660
Dibromomethane	mg/l	0.0233	0.0231	93.3	68-131	1.00	20	L571654-03	WG589660
Dichlorodifluoromethane	mg/l	0.0327	0.0346	131.	16-188	5.75	22	L571654-03	WG589660
Ethylbenzene	mg/l	0.0297	0.0307	119.	64-135	3.39	20	L571654-03	WG589660
Hexachloro-1,3-butadiene	mg/l	0.0302	0.0310	121.	64-140	2.84	20	L571654-03	WG589660
Isopropylbenzene	mg/l	0.0328	0.0338	131.	62-134	2.77	20	L571654-03	WG589660
Methyl tert-butyl ether	mg/l	0.0210	0.0213	84.0	55-136	1.63	20	L571654-03	WG589660
Methylene Chloride	mg/l	0.0215	0.0220	86.0	52-130	2.09	20	L571654-03	WG589660
n-Butylbenzene	mg/l	0.0302	0.0321	121.	62-142	5.92	20	L571654-03	WG589660
n-Propylbenzene	mg/l	0.0310	0.0317	124.	62-137	2.28	20	L571654-03	WG589660
Naphthalene	mg/l	0.0218	0.0220	87.2	65-140	1.01	20	L571654-03	WG589660
p-Isopropyltoluene	mg/l	0.0317	0.0321	127.	64-142	1.17	20	L571654-03	WG589660
sec-Butylbenzene	mg/l	0.0319	0.0326	128.	67-139	2.07	20	L571654-03	WG589660
Styrene	mg/l	0.0260	0.0266	104.	58-152	2.04	20	L571654-03	WG589660
tert-Butylbenzene	mg/l	0.0315	0.0328	126.	66-139	4.08	20	L571654-03	WG589660
Tetrachloroethene	mg/l	0.0346	0.0355	138.	56-139	2.70	20	L571654-03	WG589660
Toluene	mg/l	0.0267	0.0276	107.	61-126	3.58	20	L571654-03	WG589660
trans-1,2-Dichloroethene	mg/l	0.0269	0.0281	108.	45-137	4.48	20	L571654-03	WG589660
trans-1,3-Dichloropropene	mg/l	0.0220	0.0223	88.0	59-130	1.54	20	L571654-03	WG589660
Trichloroethene	mg/l	0.134	0.135	54.6	40-155	0.710	20	L571654-03	WG589660
Trichlorofluoromethane	mg/l	0.0373	0.0389	149.	35-177	4.23	23	L571654-03	WG589660
Vinyl chloride	mg/l	0.0294	0.0313	118.	32-159	6.32	21	L571654-03	WG589660
Xylenes, Total	mg/l	0.0865	0.0880	115.	64-133	1.71	20	L571654-03	WG589660
4-Bromofluorobenzene				102.3	82-120				WG589660
Dibromofluoromethane				89.01	82-126				WG589660
Toluene-d8				101.6	92-112				WG589660

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Lee & Ryan Environmental
Mr. Scott Randall
1707 Melody Lane

Greenfield, IN 46140

Quality Assurance Report
Level II

L571654

April 26, 2012

Batch number /Run number / Sample number cross reference

WG589483: R2141994: L571654-01 02 04 05 06 07
WG589660: R2144113: L571654-01 02 03 05

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report
Level II

L571654

April 26, 2012

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Appendix B
Groundwater Sampling Forms and Field Notes

Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 30 LF 50ft	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny 70-80s	AMBIENT TEMP: 80		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1530

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1605	1615	1625	1635								
pH (units):	7.21	7.15	7.14	7.09								
Conductivity (mS/cm):	.488	.484	.486	.486								
Turbidity (NTU):	215	167	207	200								
DO (mg/L):	0.82	0.04	0.00	0.00								
Temperture (Celcius):	23.31	23.35	22.87	22.57								
ORP (mV):	-126	-128	-132	-134								
Volume Purged (gal):	2.5	3.0	4.0	4.5								
Depth to Water (ft):	13.71	13.73	13.73	13.72								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 30 LF 60 ft.	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1720	1730	1740									
pH (units):	7.04	7.06	7.08									
Conductivity (mS/cm):	.457	.439	.450									
Turbidity (NTU):	over	over	over									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	24.23	26.91	27.02									
ORP (mV):	-67	-72	-74									
Volume Purged (gal):	10	10.5	11									
Depth to Water (ft):	13.72	13.72	13.72									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 μm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: _____

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA mid South	EVENT: GW Assessment		
WELL ID: 39G 30LF 70ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1810	1820	1830									
pH (units):	6.91	6.84	6.84									
Conductivity (mS/cm):	.397	.391	.390									
Turbidity (NTU):	over	over	over									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	22.40	22.05	21.75									
ORP (mV):	-50	-58	-57									
Volume Purged (gal):	13.0	13.5	14									
Depth to Water (ft):	13.72	13.72	13.72									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 30 LF 80ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐ Pump ☒				Description: Low flow			
Time (hh:mm):	1850	1900	1910									
pH (units):	7.00	6.79	6.70									
Conductivity (mS/cm):	.438	.351	.345									
Turbidity (NTU):	over	over	over									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	21.05	20.81	20.68									
ORP (mV):	-50	-41	-41									
Volume Purged (gal):	14.25	14.50	14.75									
Depth to Water (ft):	13.72	13.72	13.72									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: Refusal at 87.35 feet

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/20/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA MidSouth	EVENT: GW Assessment		
WELL ID: 39 M 29LF 50ft	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 80		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1530

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐ Pump ☒				Description: Low Flow			
Time (hh:mm):	1655	1705	1715									
pH (units):	7.29	7.34	7.29									
Conductivity (mS/cm):	.660	.674	.687									
Turbidity (NTU):	30.8	27.4	21.2									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	22.84	23.00	25.72									
ORP (mV):	-139	-140	-144									
Volume Purged (gal):	7.0	8.0	9.0									
Depth to Water (ft):	15.3	15.4	15.4									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39 G1 29 LF 60 ft	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70-80s	AMBIENT TEMP: 80		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1720

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low Flow			
Time (hh:mm):	1750	1800	1805	1810								
pH (units):	7.32	7.34	7.29	7.31								
Conductivity (mS/cm):	.754	.753	.754	.759								
Turbidity (NTU):	361	108	99.6	98.6								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	23.22	22.83	22.70	22.70								
ORP (mV):	-146	-145	-142	-142								
Volume Purged (gal):	14.0	15.0	15.5	16.0								
Depth to Water (ft):	15.4	15.4	15.4	15.4								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 29LF 70ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 80		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐ Pump ☒				Description: Low Flow			
Time (hh:mm):	1830	1840	1850									
pH (units):	7.30	7.33	7.33									
Conductivity (mS/cm):	.786	.797	.802									
Turbidity (NTU):	102	112	114									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	21.04	21.49	21.47									
ORP (mV):	-140	-148	-152									
Volume Purged (gal):	19.0	19.5	20.0									
Depth to Water (ft):	15.4	15.4	15.4									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: ~~dup #4 39G 29LF 80ft.~~

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 29LF 80ft.	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1915	1925	1935									
pH (units):	7.32	7.29	7.33									
Conductivity (mS/cm):	.807	.801	.816									
Turbidity (NTU):	80.6	46.5	45.6									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	20.55	20.42	20.39									
ORP (mV):	-152	-151	-153									
Volume Purged (gal):	20.5	21.0	21.5									
Depth to Water (ft):	15.4	15.4	15.4									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: dup #4 39 G 29 LF 80ft

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 29LF 90ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low Flow			
Time (hh:mm):	1940	1950	2000									
pH (units):	7.32	7.31	7.24									
Conductivity (mS/cm):	.805	.764	.700									
Turbidity (NTU):	57.2	54.3	50.2									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	19.96	19.92	19.85									
ORP (mV):	-157	-149	-145									
Volume Purged (gal):	22.0	22.5	23									
Depth to Water (ft):	15.4	15.4	15.4									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: Refusal at 97.00 feet

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/27/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 396 28LF 50ft.	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s	AMBIENT TEMP: 71		
REVIEWED BY:	PERSONNEL: J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 0900

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	0905	0915	0925	0935	0945							
pH (units):	7.37	7.35	7.35	7.36	7.22							
Conductivity (mS/cm):	1.14	1.09	1.05	1.00	0.929							
Turbidity (NTU):	35.7	16.2	12.3	11.8	11.9							
DO (mg/L):	5.41	3.24	2.42	1.69	0.99							
Temperture (Celcius):	18.71	18.76	18.78	18.84	19.14							
ORP (mV):	-138	-138	-136	-132	-121							
Volume Purged (gal):	0.5	1.0	2.0	3.0	4.0							
Depth to Water (ft):	12.84	12.84	12.84	12.84	12.84							
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/27/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 Mid-South NSA	EVENT: GW Assessment		
WELL ID: 39G 28LF 100ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s	AMBIENT TEMP: 71		
REVIEWED BY:	PERSONNEL: J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 0945

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	0955	1005	1015	1025								
pH (units):	7.09	6.97	6.92	6.95								
Conductivity (mS/cm):	.835	.799	.798	.804								
Turbidity (NTU):	12.6	6.86	5.76	7.81								
DO (mg/L):	.52	.13	0.00	0.00								
Temperture (Celcius):	19.17	19.15	19.35	19.26								
ORP (mV):	-111	-101	-98	-99								
Volume Purged (gal):	5.0	6.0	7.0	8.0								
Depth to Water (ft):	12.84	12.84	12.84	12.84								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/27/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 78LF 70ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s	AMBIENT TEMP: 73		
REVIEWED BY:	PERSONNEL: J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1030

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low-flow			
Time (hh:mm):	1045	1055	1105	1115								
pH (units):	7.02	7.05	7.10	7.14								
Conductivity (mS/cm):	.822	.826	.838	.835								
Turbidity (NTU):	9.50	10.5	13.8	13.4								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	19.32	19.80	20.13	20.24								
ORP (mV):	-106	-108	-110	-112								
Volume Purged (gal):	8.5	9.0	10.0	11.0								
Depth to Water (ft):	12.84	12.85	12.84	12.84								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 μm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/27/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 28LF 80ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s	AMBIENT TEMP: 75		
REVIEWED BY:	PERSONNEL: J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1115

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☒		Description: Low Flow			
Time (hh:mm):	1125	1135	1145	1155								
pH (units):	6.89	7.10	7.17	7.18								
Conductivity (mS/cm):	.577	.751	.816	.822								
Turbidity (NTU):	13.1	13.4	13.5	13.3								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	20.25	20.56	20.74	20.66								
ORP (mV):	-72	-100	-110	-111								
Volume Purged (gal):	12.0	13.0	14.0	15.0								
Depth to Water (ft):	12.84	12.84	12.84	12.84								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 μm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/27/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 28LF 90ft.	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s	AMBIENT TEMP: 75		
REVIEWED BY:	PERSONNEL: J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1200

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐ Pump ☒				Description: LOW FLOW			
Time (hh:mm):	1210	1220	1230	1240								
pH (units):	6.73	6.82	7.00	7.10								
Conductivity (mS/cm):	.359	.449	.590	.686								
Turbidity (NTU):	15.3	12.7	11.4	11.0								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	20.70	20.83	20.80	21.02								
ORP (mV):	-40	-51	-81	-97								
Volume Purged (gal):	16.5	17.0	17.5	18.0								
Depth to Water (ft):	12.84	12.84	12.84	12.84								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 3901 27LF 50ft	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING start at 0910

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Lowflow			
Time (hh:mm):	0940	0950	1000									
pH (units):	6.71	6.71	6.72									
Conductivity (mS/cm):	0.715	0.708	0.703									
Turbidity (NTU):	17.1	11.1	16.2									
DO (mg/L):	0.00	0.00	0.06									
Temperture (Celcius):	21.88	22.13	22.27									
ORP (mV):	-74	-76	-78									
Volume Purged (gal):	2.0	3.0	4.0									
Depth to Water (ft):	14.02	14.02	14.02									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 27LF 60ft.	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1040

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1050	1100	1110									
pH (units):	6.80	6.80	6.81									
Conductivity (mS/cm):	.691	.691	.688									
Turbidity (NTU):	7.48	7.95	8.19									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	23.58	23.40	23.50									
ORP (mV):	-90	-89	-90									
Volume Purged (gal):	7.0	8.0	9.0									
Depth to Water (ft):	14.02	14.01	14.02									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 27 LF 70ft	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1110

Circle one:	DEVELOPMENT		(SAMPLING)					Bailer ☐ Pump ☒		Description: Low flow		
Time (hh:mm):	1155	1205	1215									
pH (units):	6.81	6.82	6.80									
Conductivity (mS/cm):	.683	.677	.677									
Turbidity (NTU):	6.90	7.32	6.97									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	23.20	23.23	23.78									
ORP (mV):	-91	-94	-94									
Volume Purged (gal):	13.0	14.0	15.0									
Depth to Water (ft):	14.02	14.02	14.02									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/20/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 27 LF 80ft.	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 83		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING start at 1205

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1300	1310	1320	1330	1340							
pH (units):	6.86	6.87	6.89	6.89	6.89							
Conductivity (mS/cm):	0.654	0.6601	0.657	0.659	0.658							
Turbidity (NTU):	8.73	7.58	14.90	7.50	7.24							
DO (mg/L):	0.00	0.00	0.00	0.00	0.00							
Temperture (Celcius):	22.60	23.00	23.18	23.12	23.31							
ORP (mV):	-90	-94	-95	-95	-95							
Volume Purged (gal):	18.0	19.0	20.0	20.5	21.0							
Depth to Water (ft):	14.02	14.02	14.02	14.02	14.02							
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/20/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 27LF 90ft	LOCATION: SWMU39 Millington, TN		
WEATHER CONDITIONS: 70s-80s, Sunny	AMBIENT TEMP: 81		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐ Pump ☒				Description: Low flow			
Time (hh:mm):	1400	1410	1420	1430								
pH (units):	6.82	6.84	6.83	6.85								
Conductivity (mS/cm):	0.585	0.608	0.620	0.625								
Turbidity (NTU):	13.4	11.5	12.7	12.1								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	22.21	21.93	22.32	22.06								
ORP (mV):	-78	-84	-87	-88								
Volume Purged (gal):	21.5	22.0	22.5	23.0								
Depth to Water (ft):	14.01	14.01	14.02	14.02								
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: Refusal at 97.00 feet

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 396 26 LF 60ft.	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1005

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1015	1025	1035									
pH (units):	6.71	6.71	6.71									
Conductivity (mS/cm):	.807	.813	.812									
Turbidity (NTU):	7.97	8.95	7.35									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	22.00	22.18	22.33									
ORP (mV):	-75	-77	-78									
Volume Purged (gal):	5	6	7									
Depth to Water (ft):	13.88	13.88	13.88									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 26 LF 70ft	LOCATION: SWMU39, Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1115

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐ Pump ☒				Description: Low flow			
Time (hh:mm):	1125	1135	1145									
pH (units):	6.73	6.73	6.70									
Conductivity (mS/cm):	.807	.807	.806									
Turbidity (NTU):	6.67	7.41	6.89									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	22.20	22.22	22.51									
ORP (mV):	-74	-77	-78									
Volume Purged (gal):	10	11	12									
Depth to Water (ft):	13.88	13.88	13.88									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/26/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 26LF 80ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 78		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1150

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low flow			
Time (hh:mm):	1225	1235	1245									
pH (units):	6.72	6.72	6.73									
Conductivity (mS/cm):	.803	.806	.806									
Turbidity (NTU):	102	97.4	98.9									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	21.61	21.60	21.31									
ORP (mV):	-67	-76	-78									
Volume Purged (gal):	15	16	17									
Depth to Water (ft):	13.87	13.88	13.88									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: Refusal at 85.00 feet

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4-22-12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 MILLINGTON	EVENT:		
WELL ID: 39G25LF 50-52'	LOCATION:		
WEATHER CONDITIONS: SUNNY, 60's	AMBIENT TEMP: 66°F		
REVIEWED BY:	PERSONNEL: Stephen Boellenthin, Lon Cooper		

WELL DIAMETER: 2"	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft): 103.5'	START:	FINISH:
DEPTH TO WATER from TOC (ft): 17.64	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft): 85.96	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐ Pump ☒				Description: Low Flow			
Time (hh:mm):	1500	1525	1606									
pH (units):	5.52	5.86	6.07									
Conductivity (mS/cm):	0.707	0.695	0.590									
Turbidity (NTU):	924	432	549									
DO (mg/L):	9.51	9.99	6.10									
Temperture (Celcius):	22.99	23.42	22.66									
ORP (mV):	-74	-66	-25									
Volume Purged (gal):	2.5	4 Gal	5.5									
Depth to Water (ft):	18.45	18.43	18.39									
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA mid-South	EVENT: GW Assessment		
WELL ID: 39G 24LF 50ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING start at 1315

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: LowFlow			
Time (hh:mm):	1322	1332	1342	1352	1402							
pH (units):	7.47	7.57	7.73	7.81	7.86							
Conductivity (mS/cm):	4.89	4.90	4.86	4.88	4.83							
Turbidity (NTU):	541	459	400	355	365							
DO (mg/L):	0.31	0.12	0.00	0.00	0.00							
Temperture (Celcius):	26.17	26.11	25.90	25.95	25.72							
ORP (mV):	-181	-190	-203	-213	-217							
Volume Purged (gal):												
Depth to Water (ft):												
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 24LF 160ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1410

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low Flow			
Time (hh:mm):	1421	1431	1441	1451								
pH (units):	7.83	7.80	7.78	7.76								
Conductivity (mS/cm):	4.47	4.33	4.19	4.08								
Turbidity (NTU):	479	429	429	312								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	24.05	24.54	23.27	22.52								
ORP (mV):	-229	-228	-220	-214								
Volume Purged (gal):												
Depth to Water (ft):												
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 μm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 24LF 70 ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny, 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1814 55

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐		Pump ☐		Description:			
Time (hh:mm):	1513	1523	1533									
pH (units):	7.72	7.71	7.73									
Conductivity (mS/cm):	3.93	3.92	3.91									
Turbidity (NTU):	119	108	112									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	22.03	22.04	22.01									
ORP (mV):	-208	-206	-207									
Volume Purged (gal):												
Depth to Water (ft):												
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39G 24LF 80ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1545

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low Flow			
Time (hh:mm):	1617	1627	1637									
pH (units):	7.83	7.83	7.82									
Conductivity (mS/cm):	4.67	4.46	4.33									
Turbidity (NTU):	59.7	25.4	28.11									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	23.12	22.28	21.71									
ORP (mV):	-163	-211	-211									
Volume Purged (gal):												
Depth to Water (ft):												
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/2012	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 NSA Mid-South	EVENT: GW Assessment		
WELL ID: 39 G 24 LF 90ft	LOCATION: SWMU 39 Millington, TN		
WEATHER CONDITIONS: Sunny 70s-80s	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: ~~Luke Hall~~ J. Hall		

WELL DIAMETER:	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft):	START:	FINISH:
DEPTH TO WATER from TOC (ft):	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING Start at 1645

Circle one:	DEVELOPMENT		(SAMPLING)		Bailer ☐		Pump ☒		Description: Low Flow			
Time (hh:mm):	1748	1756	1808									
pH (units):	7.74	7.78	7.79									
Conductivity (mS/cm):	3.77	3.95	3.99									
Turbidity (NTU):	214	121	106									
DO (mg/L):	0.00	0.00	0.00									
Temperture (Celcius):	22.82	22.06	22.09									
ORP (mV):	-176	-207	-211									
Volume Purged (gal):												
Depth to Water (ft):												
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			

Purging/Sampling Device Decon Process:

COMMENTS: DO — MSDS 90ft 1810

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: SWMU 39	EVENT: GW Assessment		
WELL ID: 39G23LF 48-50'	LOCATION:		
WEATHER CONDITIONS: Sunny, 70's	AMBIENT TEMP:		
REVIEWED BY:	PERSONNEL: Lee Cooper, Steve Bollenbacher		

WELL DIAMETER: 2"	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft): ~~14.75~~ 100.00	START:	FINISH:
DEPTH TO WATER from TOC (ft): 14.75'	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS N/A

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING										
					Bailer ☐		Pump ☒		Description: Low Flow				
Time (hh:mm):	1500	1530	1600										
pH (units):	6.43	6.44	6.47										
Conductivity (mS/cm):	0.688	0.686	0.688										
Turbidity (NTU):	49	41.2	40.8										
DO (mg/L):	0.0	0.0	0.0										
Temperture (Celcius):	24.45	26.33	25.85										
ORP (mV):	-77	-81	-81										
Volume Purged (gal):	3 gal	3.5	4.0										
Depth to Water (ft):	14.33	14.34	14.33										
								Well Goes Dry While Purging ☐					

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			
39G23LF 48-50'	4/25/12		1605		2		No					

Purging/Sampling Device Decon Process:

COMMENTS: Duplicate sample (Dup #2) collected 48-50'

Purge water placed in drum: # _____

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Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: SWMU39	EVENT: GW ASSESSMENT		
WELL ID: 39G23LF 68-60'	LOCATION: MILLINGTON, TN		
WEATHER CONDITIONS: Sunny, 70's-80's	AMBIENT TEMP: 81		
REVIEWED BY:	PERSONNEL: LON COOPER, [illegible]		

WELL DIAMETER: 2"	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft): 100'	START:	FINISH:
DEPTH TO WATER from TOC (ft): 14.34	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐ Pump ☒				Description: Low Flow			
Time (hh:mm):	1615	1645	1657	1710	1730	1740						
pH (units):	6.47	6.45	6.34	6.35	6.39	6.41						
Conductivity (mS/cm):	0.688	0.744	0.652	0.646	0.644	0.647						
Turbidity (NTU):	40.8	28.1	109	59.4	31.9	29.5						
DO (mg/L):	0.0	0.0	0.0	0.00	0.00	0.00						
Temperture (Celcius):	25.85	23.36	24.35	23.45	24.3	24.0						
ORP (mV):	-81	-53	-64	-65	-66	-66						
Volume Purged (gal):	0.0	2.0	2.5	3.0	5.0	6.0						
Depth to Water (ft):	14.33	14.30	14.30	14.29	14.29	14.29						
								Well Goes Dry While Purging ☐				

SAMPLE DATA

Sample ID	Date (m/d/yr)	Time (hh:mm)	Bottles (total to Lab)	Filtered (0.45 µm)	Remarks
39G23LF 60	4/25/12	1742	2	—	

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

Page____of____

Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: MILLINGTON	EVENT: GW ASSESSMENT		
WELL ID: 39G23LF 70	LOCATION: SWMU39, MILLINGTON		
WEATHER CONDITIONS: Sunny, Warm	AMBIENT TEMP: 49		
REVIEWED BY:	PERSONNEL: L Cooper, S Brellenthin, L. Hall (SBMG)		

WELL DIAMETER: 2"	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft): 100'	START:	FINISH:
DEPTH TO WATER from TOC (ft): 14.33	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐ Pump ☐				Description:			
Time (hh:mm):	1745	1815	1835	1845								
pH (units):	6.41	6.69	6.38	6.40								
Conductivity (mS/cm):	0.647	1.10	0.643	0.636								
Turbidity (NTU):	27.5	80.2	16.9	15.0								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	24.0	22.64	22.36	22.46								
ORP (mV):	-66	-81	-60	-62								
Volume Purged (gal):	0.0	2.5	5.0	5.5								
Depth to Water (ft):	14.33	14.28	14.24	14.24								
								Well Goes Dry While Purging ☐				

SAMPLE DATA

Sample ID	Date (m/d/yr)	Time (hh:mm)	Bottles (total to Lab)	Filtered (0.45 µm)	Remarks
39G23LF 70	4/25/12	1847	2	—	

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

Page____of____

Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: 11259 MILLINGTON	EVENT: GW ASSESSMENT		
WELL ID: 39G23LF 80	LOCATION: SWMU 39		
WEATHER CONDITIONS: Sunny, 82	AMBIENT TEMP: 74		
REVIEWED BY:	PERSONNEL: J Cooper, S. Brellenthin, L. Hall		

WELL DIAMETER: 2"	**WELL DEVELOPMENT**	
TOTAL DEPTH from TOC (ft): 100'	START:	FINISH:
DEPTH TO WATER from TOC (ft): 14.24'	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	**GROUNDWATER SAMPLING**	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING		Bailer ☐ Pump ☐				Description:			
Time (hh:mm):	1850	1905	1915	1930								
pH (units):	6.51	6.55	6.49	6.50								
Conductivity (mS/cm):	0.666	0.667	0.652	0.648								
Turbidity (NTU):	12.8	64.2	44.0	41.1								
DO (mg/L):	0.00	0.00	0.00	0.00								
Temperture (Celcius):	21.59	21.51	21.43	21.53								
ORP (mV):	-78	-79	-70	-71								
Volume Purged (gal):	0.0	1.0	1.5	2.0								
Depth to Water (ft):	14.24	14.24	14.24	14.24								
								Well Goes Dry While Purging ☐				

SAMPLE DATA

Sample ID	Date (m/d/yr)	Time (hh:mm)	Bottles (total to Lab)	Filtered (0.45 µm)	Remarks
39G23LF 80	4/25/12	1830	2	—	

Purging/Sampling Device Decon Process:

COMMENTS:

Purge water placed in drum: # _____

Page____of____

Lee & Ryan

WELL DEVELOPMENT & GROUNDWATER SAMPLING FORM

DATE: 4/25/12	JOB NUMBER: 11259	PHASE:	TASK:
PROJECT: SWMU 39 MILLINGTON	EVENT: GW ASSESSMENT		
WELL ID: 39623LF 90	LOCATION: SWMU39		
WEATHER CONDITIONS: SUNNY, 79	AMBIENT TEMP: 79		
REVIEWED BY:	PERSONNEL: L Cooper, S. Beellenthin		

WELL DIAMETER: 2"	WELL DEVELOPMENT	
TOTAL DEPTH from TOC (ft): 100'	START:	FINISH:
DEPTH TO WATER from TOC (ft): 14.24	VOLUME PURGED (gal):	
LENGTH OF WATER COL. (ft):	GROUNDWATER SAMPLING	
1 VOLUME OF WATER (gal):	START:	FINISH:
3VOLUMES OF WATER (gal):	VOLUME PURGED (gal):	
	ANALYSIS:	

MNA FIELD RESULTS

FERROUS IRON	mg/L	CHLORIDE	mg/L	PHOSPHORUS	mg/L
SULFIDE	mg/L	ALKALINITY	mg/L	AMMONIA-NITROGEN	mg/L
SULFATE	mg/L	CO_2	mg/L		mg/L

IN-SITU TESTING

Circle one:	DEVELOPMENT		SAMPLING		Bailer ~~☐~~ Pump ☑				Description: LOW FLOW			
Time (hh:mm):	1940	1950	2000	2010	2020							
pH (units):	6.57	6.59	6.55	6.49	6.48							
Conductivity (mS/cm):	0.653	0.648	0.646	0.640	.631							
Turbidity (NTU):	64.2	47.3	51.5	42.8	43.7							
DO (mg/L):	0.00	0.00	0.00	0.00	0.00							
Temperture (Celcius):	20.88	20.87	20.87	20.82	20.66							
ORP (mV):	-80	-82	-74	-65	-63							
Volume Purged (gal):	0.0	0.5	\	1.5	2							
Depth to Water (ft):	14.23	14.23	14.23	14.23	14.23							
								Well Goes Dry While Purging				☐

SAMPLE DATA

Sample ID	Date (m/d/yr)		Time (hh:mm)		Bottles (total to Lab)		Filtered (0.45 µm)		Remarks			
39623LF 90												

Purging/Sampling Device Decon Process:

COMMENTS: Sediment at 95.5'. Cannot sample 100' interval.

Purge water placed in drum: # _____

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Appendix C
Discrete Groundwater Monitoring Well Construction Diagrams/Soil Boring Logs

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G30LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/20/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811256.22 / 387790.65	**TOC ELEVATION:**	263.498 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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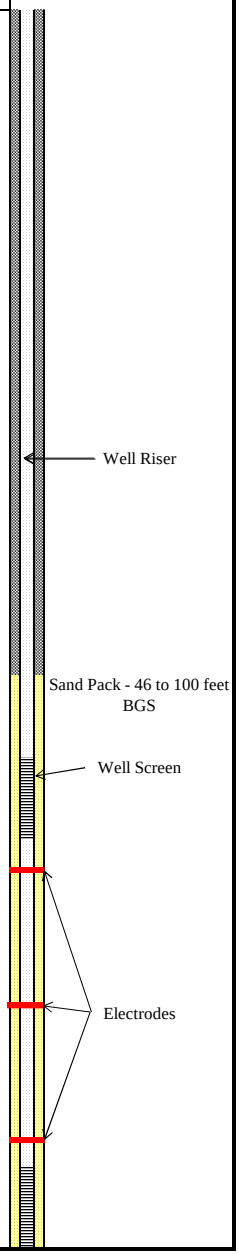
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G30LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/20/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811256.22 / 387790.65	**TOC ELEVATION:**	263.498 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**30-32**	NA	NA				
31												
32					N/A	**32-34**	NA	NA				
33												
34					N/A	**34-36**	NA	NA				
35												
36					N/A	**36-38**	NA	NA				
37												
38					N/A	**38-40**	NA	NA				
39												
40					N/A	**40-42**	NA	NA				
42												
42					N/A	**42-44**	NA	NA				
43												
44					N/A	**44-46**	NA	NA				
45												
46					N/A	**46-48**	NA	NA				
47												
48					N/A	**48-50**	NA	NA				
49												
50					N/A	**50-52**	NA	NA				
51												
52					N/A	**52-54**	NA	NA				
53												
54					N/A	**54-56**	NA	NA				
55												
56					N/A	**56-58**	NA	NA				
57												
58					N/A	**58-60**	NA	NA				
59												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G30LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/20/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811256.22 / 387790.65	**TOC ELEVATION:**	263.498 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G30LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/20/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811256.22 / 387790.65	**TOC ELEVATION:**	263.498 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100											**End of boring @ 100 feet BGS**	
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G29LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811248.14 / 387808.97	**TOC ELEVATION:**	263.496 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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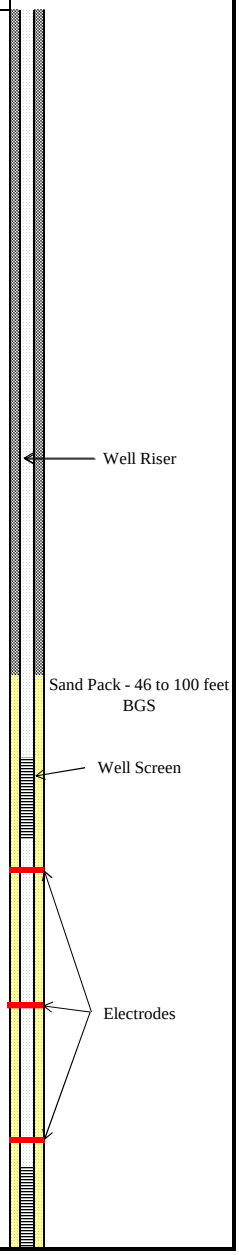
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G29LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811248.14 / 387808.97	**TOC ELEVATION:**	263.496 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**30-32**	NA	NA				
31												
32					N/A	**32-34**	NA	NA				
33												
34					N/A	**34-36**	NA	NA				
35												
36					N/A	**36-38**	NA	NA				
37												
38					N/A	**38-40**	NA	NA				
39												
40					N/A	**40-42**	NA	NA				
42												
42					N/A	**42-44**	NA	NA				
43												
44					N/A	**44-46**	NA	NA				
45												
46					N/A	**46-48**	NA	NA				
47												
48					N/A	**48-50**	NA	NA				
49												
50					N/A	**50-52**	NA	NA				
51												
52					N/A	**52-54**	NA	NA				
53												
54					N/A	**54-56**	NA	NA				
55												
56					N/A	**56-58**	NA	NA				
57												
58					N/A	**58-60**	NA	NA				
59												



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ENVIRONMENTAL • CONSTRUCTION • ENGINEERING

Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G29LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811248.14 / 387808.97	**TOC ELEVATION:**	263.496 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												

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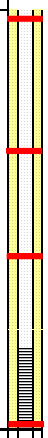
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G29LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811248.14 / 387808.97	**TOC ELEVATION:**	263.496 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100											**End of boring @ 100 feet BGS**	
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G28LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811267.97 / 387806.83	**TOC ELEVATION:**	262.804 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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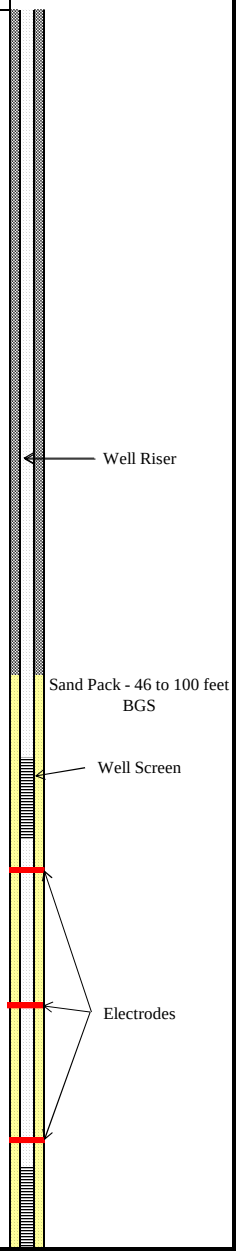
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G28LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811267.97 / 387806.83	**TOC ELEVATION:**	262.804 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**30-32**	NA	NA				
31												
32					N/A	**32-34**	NA	NA				
33												
34					N/A	**34-36**	NA	NA				
35												
36					N/A	**36-38**	NA	NA				
37												
38					N/A	**38-40**	NA	NA				
39												
40					N/A	**40-42**	NA	NA				
42												
42					N/A	**42-44**	NA	NA				
43												
44					N/A	**44-46**	NA	NA				
45												
46					N/A	**46-48**	NA	NA				
47												
48					N/A	**48-50**	NA	NA				
49												
50					N/A	**50-52**	NA	NA				
51												
52					N/A	**52-54**	NA	NA				
53												
54					N/A	**54-56**	NA	NA				
55												
56					N/A	**56-58**	NA	NA				
57												
58					N/A	**58-60**	NA	NA				
59												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G28LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811267.97 / 387806.83	**TOC ELEVATION:**	262.804 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G28LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/19/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811267.97 / 387806.83	**TOC ELEVATION:**	262.804 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100											**End of boring @ 100 feet BGS**	
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G27LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/18/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811237.29 / 387583.19	**TOC ELEVATION:**	263.86 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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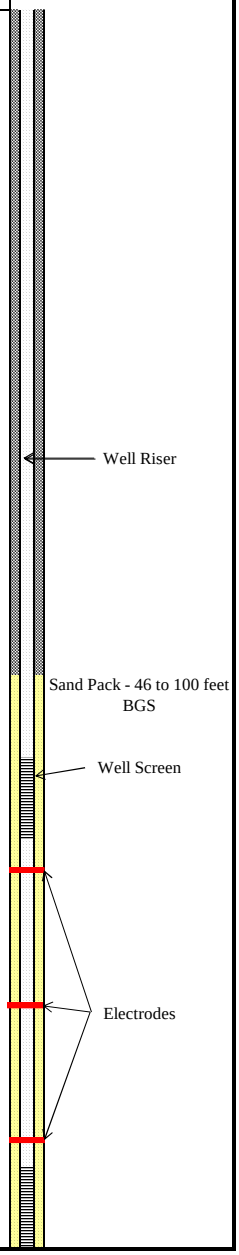
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G27LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/18/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811237.29 / 387583.19	**TOC ELEVATION:**	263.86 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**30-32**	NA	NA				
31												
32					N/A	**32-34**	NA	NA				
33												
34					N/A	**34-36**	NA	NA				
35												
36					N/A	**36-38**	NA	NA				
37												
38					N/A	**38-40**	NA	NA				
39												
40					N/A	**40-42**	NA	NA				
42												
42					N/A	**42-44**	NA	NA				
43												
44					N/A	**44-46**	NA	NA				
45												
46					N/A	**46-48**	NA	NA				
47												
48					N/A	**48-50**	NA	NA				
49												
50					N/A	**50-52**	NA	NA				
51												
52					N/A	**52-54**	NA	NA				
53												
54					N/A	**54-56**	NA	NA				
55												
56					N/A	**56-58**	NA	NA				
57												
58					N/A	**58-60**	NA	NA				
59												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G27LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/18/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811237.29 / 387583.19	**TOC ELEVATION:**	263.86 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G27LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/18/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811237.29 / 387583.19	**TOC ELEVATION:**	263.86 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100											**End of boring @ 100 feet BGS**	
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
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116												
117												
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119												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G26LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100.5 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811244.59 / 387605.08	**TOC ELEVATION:**	264.17 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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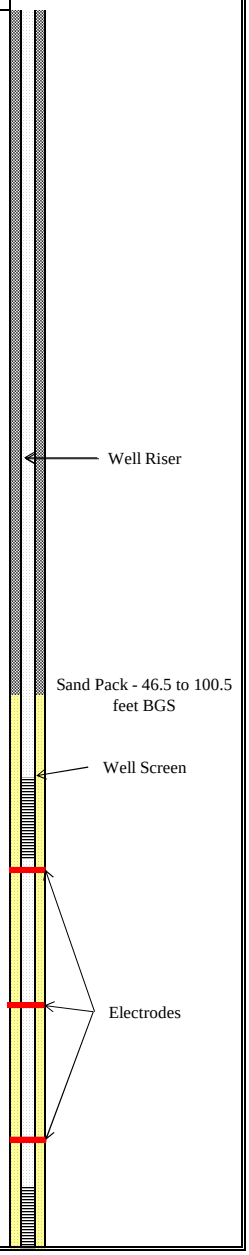
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G26LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100.5 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811244.59 / 387605.08	**TOC ELEVATION:**	264.17 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)
30					N/A	**30-32**	NA	NA		
31										
32					N/A	**32-34**	NA	NA		
33										
34					N/A	**34-36**	NA	NA		
35										
36					N/A	**36-38**	NA	NA		
37										
38					N/A	**38-40**	NA	NA		
39										
40					N/A	**40-42**	NA	NA		
42										
42					N/A	**42-44**	NA	NA		
43										
44					N/A	**44-46**	NA	NA		
45										
46					N/A	**46-48**	NA	NA		
47										
48					N/A	**48-50**	NA	NA		
49										
50					N/A	**50-52**	NA	NA		
51										
52					N/A	**52-54**	NA	NA		
53										
54					N/A	**54-56**	NA	NA		
55										
56					N/A	**56-58**	NA	NA		
57										
58					N/A	**58-60**	NA	NA		
59										

SOIL LITHOLOGY | **WELL CONSTRUCTION**



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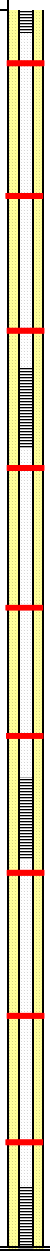
ENVIRONMENTAL • CONSTRUCTION • ENGINEERING

Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G26LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100.5 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811244.59 / 387605.08	**TOC ELEVATION:**	264.17 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G26LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100.5 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811244.59 / 387605.08	**TOC ELEVATION:**	264.17 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100												
101					NA	**100-102**	NA	NA			**End of boring @ 100.5 feet BGS**	
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												

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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G25LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	102 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811259.38 / 387591.93	**TOC ELEVATION:**	266.204 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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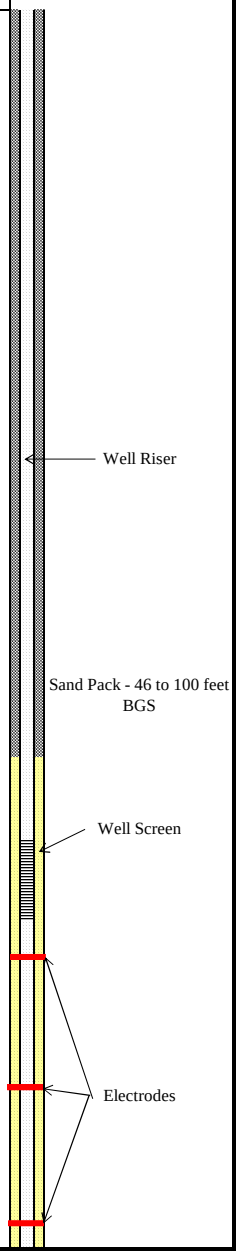
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G25LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	102 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811259.38 / 387591.93	**TOC ELEVATION:**	266.204 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**30-32**	NA	NA				
31												
32					N/A	**32-34**	NA	NA				
33												
34					N/A	**34-36**	NA	NA				
35												
36					N/A	**36-38**	NA	NA				
37												
38					N/A	**38-40**	NA	NA				
39												
40					N/A	**40-42**	NA	NA				
42												
42					N/A	**42-44**	NA	NA				
43												
44					N/A	**44-46**	NA	NA				
45												
46					N/A	**46-48**	NA	NA				
47												
48					N/A	**48-50**	NA	NA				
49												
50					N/A	**50-52**	NA	NA				
51												
52					N/A	**52-54**	NA	NA				
53												
54					N/A	**54-56**	NA	NA				
55												
56					N/A	**56-58**	NA	NA				
57												
58					N/A	**58-60**	NA	NA				
59												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G25LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811259.38 / 387591.93	**TOC ELEVATION:**	266.204 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												

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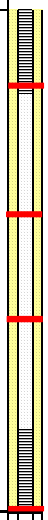
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G24LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/16/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811218.97 / 387571.94	**TOC ELEVATION:**	264.08 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100												
101					NA	**100-102**	NA	NA				
102											**End of boring @ 102 feet BGS**	
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G24LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/13/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811218.97 / 387571.94	**TOC ELEVATION:**	264.08

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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Soil Boring and Monitoring Well Construction Log

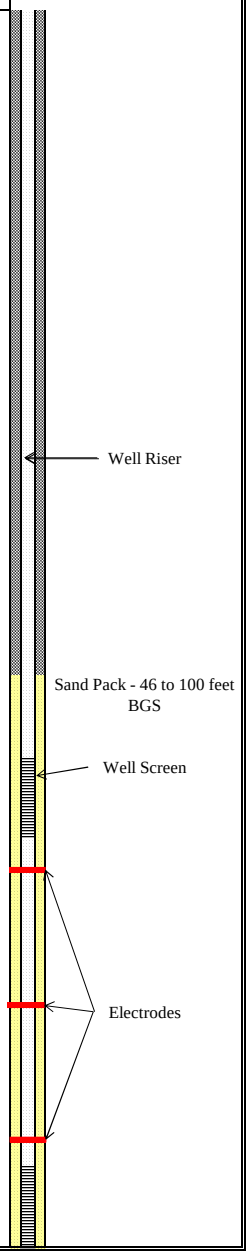
PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G24LF - page 2 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/13/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811218.97 / 387571.94	**TOC ELEVATION:**	264.08

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)
30					N/A	**30-32**	NA	NA		
31										
32					N/A	**32-34**	NA	NA		
33										
34					N/A	**34-36**	NA	NA		
35										
36					N/A	**36-38**	NA	NA		
37										
38					N/A	**38-40**	NA	NA		
39										
40					N/A	**40-42**	NA	NA		
42										
42					N/A	**42-44**	NA	NA		
43										
44					N/A	**44-46**	NA	NA		
45										
46					N/A	**46-48**	NA	NA		
47										
48					N/A	**48-50**	NA	NA		
49										
50					N/A	**50-52**	NA	NA		
51										
52					N/A	**52-54**	NA	NA		
53										
54					N/A	**54-56**	NA	NA		
55										
56					N/A	**56-58**	NA	NA		
57										
58					N/A	**58-60**	NA	NA		
59										

SOIL LITHOLOGY

WELL CONSTRUCTION



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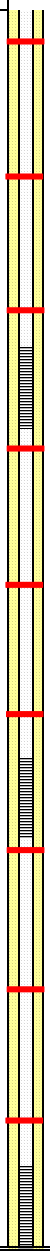
Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G24LF - page 3 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/13/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811218.97 / 387571.94	**TOC ELEVATION:**	264.08

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												



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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G24LF - page 4 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/13/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811218.97 / 387571.94	**TOC ELEVATION:**	264.08

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100											**End of boring @ 100 feet BGS**	
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
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Soil Boring and Monitoring Well Construction Log

PROJECT NAME:	SWMU-39, NSA Mid-South	**BORING/WELL NUMBER:**	**39G23LF - page 1 of 4**
PROJECT NUMBER:	11259.05	**DRILLING DATE:**	4/12/2012
PROJECT LOCATION:	Millington, TN	**FIELD GEOLOGIST:**	Stephen Brellenthin
DRILLING CONTRACTOR:	Tri-State	**TOTAL DEPTH OF BORING:**	100 feet
DRILLER(S) NAME:	John Crawford / Matt Pope	**WELL DIAMETER/ MATERIAL:**	2.0-inch PVC, 0.010-inch slotted screen
RIG TYPE:	CME 550	**SAMPLE ID & DEPTH:**	None collected
EASTING / NORTHING:	811235.23 / 387560.88	**TOC ELEVATION:**	263.794 feet MSL

Monitoring well was blind drilled to depth; lithologic description unavailable

DEPTH (FT)	SAMPLE TYPE	SAMPLE DATE/TIME	SAMPLE IDENTIFICATION	SAMPLE DEPTH (FT)	BLOW COUNTS (PER 0.5 FT)	CORE/SPOON DEPTH INTERVAL (FT)	% SOIL RECOVERY	PID (Parts Per Million)	GRAPHIC LITHOLOGY	DESCRIPTION INTERVAL (FT)	SOIL LITHOLOGY	WELL CONSTRUCTION
GS											**Ground Surface (GS)**	
0					N/A	**0-2**	NA	NA				Flush mount well vault with traffic-bearing cover
1												
2					N/A	**2-4**	NA	NA				
3												
4					N/A	**4-6**	NA	NA				Bentonite 0.5 to 46 feet BGS
5												
6					N/A	**6-8**	NA	NA				
7												
8					N/A	**8-10**	NA	NA				
9												
10					N/A	**10-12**	NA	NA				Well Riser
11												
12					N/A	**12-14**	NA	NA				
13												
14					N/A	**14-16**	NA	NA				
15												
16					N/A	**16-18**	NA	NA				
17												
18					N/A	**18-20**	NA	NA				
19												
20					N/A	**20-22**	NA	NA				
21												
22					N/A	**22-24**	NA	NA				
23												
24					N/A	**24-26**	NA	NA				
25												
26					N/A	**26-28**	NA	NA				
27												
28					N/A	**28-30**	NA	NA				
29												

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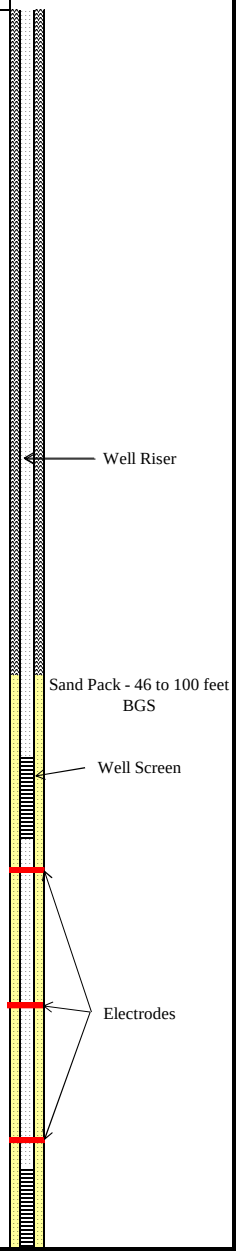
30					N/A	**30-32**	NA	NA				
31												
32					N/A	**32-34**	NA	NA				
33												
34					N/A	**34-36**	NA	NA				
35												
36					N/A	**36-38**	NA	NA				
37												
38					N/A	**38-40**	NA	NA				
39												
40					N/A	**40-42**	NA	NA				
42												
42					N/A	**42-44**	NA	NA				
43												
44					N/A	**44-46**	NA	NA				
45												
46					N/A	**46-48**	NA	NA				
47												
48					N/A	**48-50**	NA	NA				
49												
50					N/A	**50-52**	NA	NA				
51												
52					N/A	**52-54**	NA	NA				
53												
54					N/A	**54-56**	NA	NA				
55												
56					N/A	**56-58**	NA	NA				
57												
58					N/A	**58-60**	NA	NA				
59												



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30					N/A	**60-62**	NA	NA				
31												
32					N/A	**62-64**	NA	NA				
33												
34					N/A	**64-66**	NA	NA				
35												
36					N/A	**66-68**	NA	NA				
37												
38					N/A	**68-70**	NA	NA				
39												
40					N/A	**70-72**	NA	NA				
42												
42					N/A	**72-74**	NA	NA				
43												
44					N/A	**74-76**	NA	NA				
45												
46					N/A	**76-78**	NA	NA				
47												
48					N/A	**78-80**	NA	NA				
49												
50					N/A	**80-82**	NA	NA				
51												
52					N/A	**82-84**	NA	NA				
53												
54					N/A	**84-86**	NA	NA				
55												
56					N/A	**86-88**	NA	NA				
57												
58					N/A	**88-90**	NA	NA				
59												

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90												
91					N/A	**90-92**	NA	NA				
92												
93					N/A	**92-94**	NA	NA				
94												
95					N/A	**94-96**	NA	NA				
96												
97					N/A	**96-98**	NA	NA				
98												
99					N/A	**98-100**	NA	NA				
100											**End of boring @ 100 feet BGS**	
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
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116												
117												
118												
119												

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SOIL BORING LOG KEY

	TOPSOIL / CONCRETE / ASPHALT / FILL
GW	GRAVEL, Well Graded, sandy gravel mixtures, little or no fines
GP	GRAVEL, Poorly Graded, sandy gravel mixtures, little or no fines
GM	GRAVEL, Silty Gravels, Gravel-Sand-Silt mixtures
GC	GRAVEL, Clayey Gravels, Gravel-Sand-Clay mixtures
SW	SAND, Well Graded, gravelly sands, little to no fines
SP	SAND, Poorly Graded, gravelly sands, little or no fines
SM	SILTY SAND, sand-silt mixtures
SC	CLAYEY SAND, sand-clay mixtures
ML	SILT, Low Plasticity, Silts, clayey silts, sandy silts
CL	CLAY, Low Plasticity, Inorganic Clays, silty clays, & sandy clays
OL	ORGANIC CLAYS & SILTS, Low Plasticity
MH	SILT, High Plasticity, Inorganic Silts, clayey silts, & sandy silts
CH	CLAY, High Plasticity, Clays, silty clays, & sandy clays
OH	ORGANIC CLAYS & SILTS, High Plasticity
PT	PEAT, Humus or swamp soils with high organic content

BGS	Below Ground Surface
---------	Inferred Contact
———	Known Contact

WELL CONSTRUCTION LOG KEY

- BENTONITE PELLETS
- BENTONITE CHIPS
- RISER
- SCREEN
- BENTONITE SLURRY
- CEMENT & BENTONITE SLURRY
- SATURATION
- SAMPLE INTERVAL