Phase II
Environmental Site Assessment Report
Tyson Foods
9943 Old Ocean City Boulevard
Berlin, Maryland 21811

Prepared for:

Town of Berlin
10 William Street
Berlin, Maryland 21811

Prepared by:

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July 2015 EA Project Number: 1470408

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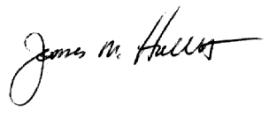

7/23/2015

James Hulbert — Date
Project Manager

7/23/2015

Pete Lekas — Date
Senior Technical Review

July 2015

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LIST OF ACRONYMS AND ABBREVIATIONS

µg/kg	Microgram(s) per kilogram
ALWI	Advanced Land and Water, Inc.
amsl	Above mean sea level
AST	Aboveground Storage Tank
ATC	Anticipated Typical Concentration
bgs	Below Ground Surface
BOD	Biological Oxygen Demand
BTEX	Benzene, toluene, ethylene, and xylene
°C	Degrees Celsius
DPT	Direct Push Technology
DRO	Diesel Range Organics
EA	EA Engineering, Science, and Technology, Inc., PBC
ESA	Environmental Site Assessment
F&R	Froehling & Robertson, Inc.
ft	Foot or Feet
GPR	Ground-Penetrating Radar
GPS	Global Positioning System
ID	Identification
IDW	Investigative-Derived Waste
MCL	Maximum Contaminant Level
MDE	Maryland Department of Environment
mg/kg	Milligram(s) per kilogram
MPN/100 ml	Most Probable Number per 100 milliliters
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MTBE	Methyl-tert-butyl ether
NFRD	No Further Requirements Determination
OCP	Oil Control Program
PCB	Polychlorinated Biphenyl
PID	Photoionization Detector
ppb	Parts per billion
PPL	Priority Pollutant List

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

REC	Recognized Environmental Condition
QA	Quality Assurance
QC	Quality Control
SVOC	Semi-volatile Compound
TIC	Tentatively Identified Compound
TKN	Total Kjehldahl Nitrogen
TPH	Total Petroleum Hydrocarbons
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

EA Engineering, Science, and Technology, Inc., PBC (EA) was contracted by the Town of Berlin to perform a Phase II Environmental Site Assessment (ESA) of the former Tyson Foods Facility located at 9943 Old Ocean City Boulevard (Site) located in Berlin, Maryland 21811.

The scope of work for this Phase II investigation was developed based on a review of available historic investigations and environmental reports for the Site. The Site has a recorded Activity and Use Limitation for industrial use. The goal of this investigation is to evaluate the potential for the historical Site uses to have impacted the environmental integrity of areas of the Site not addressed by previous investigations in order to meet the Maryland Department of the Environment (MDE) requirements to revise the Activity and Use Limitation for proposed future recreational use.

EA performed the soil, groundwater, and surface water sampling in June 2015. This Phase II Report details the field investigation methods; provides discussion of laboratory results, and provides conclusions based upon all site investigation efforts performed.

The results of all the Site investigation efforts confirm the following:

- Concentrations of arsenic were reported slightly greater than the MDE Residential Soil Clean-up Standards throughout the Site in surface and subsurface samples. However, no results were reported that exceeded the MDE Anticipated Typical Concentrations (ATC).

- Benzo(a)pyrene and benzo(a)anthracene were reported in a single surface sample located adjacent to the former maintenance room greater than the MDE Residential Soil Clean-up Standards. Based on the results from prior investigations and the proposed recreational land use, the levels of PAHs observed are not anticipated to represent an exposure concern for the recreational user.

- E.coli and enterococci were reported in surface water sample SW-03, located at the northernmost edge of the lagoons, greater than the MDE Recreational Use Criteria.

Based on review of the soil and groundwater analytical data it appears that there are no analytes of concern detected at concentrations or frequency that would represent a human health concern for future recreational users of the Site. Concentrations of E. coli and enterococci reported at the northernmost edge of the lagoons indicate an exposure concern associated with the recreational use of the lagoon water.

1.0 INTRODUCTION

EA Engineering, Science, and Technology, Inc., PBC (EA) was contracted by the Town of Berlin to perform a Phase II Environmental Site Assessment (ESA) of the former Tyson Foods Facility located at 9943 Old Ocean City Boulevard (Site) located in Berlin, Maryland 21811.

1.1 PURPOSE AND SCOPE

The scope of work for this Phase II investigation was developed based on a review of available historic investigations and environmental reports for the Site. The Site has a recorded Activity and Use Limitation for industrial use. The goal of this investigation is to evaluate the potential for the historical Site uses to have impacted the environmental integrity of the Site not addressed by previous investigations in order to meet the Maryland Department of the Environment (MDE) requirements to revise the Activity and Use Limitation for proposed future recreational use.

Field activities conducted at the Site consisted of the following:

- Direct push technology (DPT) was utilized by EA and Green Services, Inc. to advance seven soil borings throughout the Site to a maximum depth ranging from 8-20 feet (ft) below ground surface (bgs). This effort yielded 14 soil samples (plus two duplicates).

- Two of the borings were converted to temporary groundwater wells located adjacent to the lagoons for the collection of two groundwater samples (plus one duplicate).

- Hand augering was performed by EA to advance three soil borings in the lagoons on the Site to a maximum depth of 5 ft bgs. This effort yielded six soil samples.

- Three surface water samples were collected from the lagoons.

This Phase II ESA Report provides a detailed synopsis of the soil, groundwater, and surface water sampling results collected during the June 2015 sampling event performed at the Site.

2.0 SITE AND PROJECT BACKGROUND

2.1 SITE LOCATION AND DESCRIPTION

The Site consists of three adjoining parcels of land located at 9943 Old Ocean City Boulevard within Worcester County in Berlin, Maryland. Identified as Map 0025, Grid 0009, and Parcels 0052, 0057, and 0410, the Site is currently comprised of approximately 56.72 acres and is zoned I-2, heavy industrial and municipal. The Site location is illustrated in Figure 1. The Site is bordered by an on ramp to Route 113 to the north, commercial properties to the south, Route 113 to the west, and a railroad track, beyond which is vacant land, to the east.

The Site is located on the United States Geological Survey (USGS) Berlin, Maryland 7.5-minute topographic quadrangle map, as shown on Figure 1, Site Location, in Appendix A. The elevation of the Site is relatively flat at approximately 25 ft above mean sea level (amsl), with the exception of the lagoons. The nearest surface water feature shown on the topographic map is Kitts Branch which flows through the northern portion of the Site.

Review of the Web Soil Survey (United States Department of Agriculture, Natural Resources Conservation Service, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurveny.aspx) indicates that the southwest portion of the subject site is classified as the Urban Land Complex consists of areas where much of the soil surface is covered with asphalt, concrete, buildings, or other impervious material. The majority of the southern portion of the subject site is classified as the Mullica-Berryland complex, which is characterized by a 0 to 2 percent slope and is very poorly drained mucky sandy loam weathered from sandy eolian deposits and/or fluviomarine sediments.

The remainder of the subject site is classified as: the Urban land-Udorthents Complex, which is characterized by a 0 to 5 percent slope, are 50% Urban Land and 35% well-drained sandy loams weathered from fluviomarine deposits; the Woodstown sandy loam, which is characterized by 2 to 5 percent slopes and are moderately well-drained sandy loams weathered from loamy fluviomarine deposits; and the Udorthents, which is characterized by 0 to 5 percent slopes and are well-drained loamy soils weathered from fluviomarine deposits.

2.2 SITE HISTORY

The Site operated as a poultry processing plant as of the mid-1940s. In 1965, the Site was purchased by the Ralston Purina Company, which further developed the Site with construction of a poultry processing building, rendering plant addition, a scale house, a shop, an ice storage, additions to the plant, a garage/office space, a cooling shed, and an accessory structure to cover the wastewater treatment plant. Circa 1972, Chesapeake Foods, Inc. (which later became Tyson Chicken, Inc.) purchased the Site, with further development that included construction of a new processing front, employee facility, office building, refrigeration facility, feather dryer enclosure, cooler expansion, 4-bay live haul building, cold storage cooler, lime silo, addition to the live haul shed, secondary clarifier for the wastewater treatment plant, and additions to the plant on Parcel 0057, and construction of a process water upgrade fire pump house with a 150,000-gallon tank on Parcel 0052. In 2005, Berlin Properties North, LLC purchased the Site which at the time also included Parcel 1705; however, Parcel 1705 was purchased by the County Commissioners of

Worcester County, Maryland in 2008. From 2008 through 2011, five buildings on Parcel 0057 and the wastewater treatment structure on Parcel 0052 were demolished.

The Site was issued a discharge permit State No. 79-DP-0375 to discharge chicken processing and rendering wastes after treatment to Kitts Branch. The permit noted that stormwater runoff did not enter the treatment system. The permit required testing for biological oxygen demand (BOD), total suspended solids (TSS), oil and grease, dissolved oxygen, residual chlorine, fecal coliform, pH, total kjehldahl nitrogen (TKN), nitrate, ammonia, and phosphate.

2.3 PRIOR ENVIRONMENTAL REPORTS

Environmental investigations of the Site and surrounding area include groundwater sampling, soil sampling, lagoon discharge sampling, air sampling, remedial activities, and Phase I and II ESAs. A summary of the relevant prior Site investigations is provided below.

Bureau of Air Quality and Noise Control Odor Complaint October 1977

Several odor complaints were received, and after a review of operations it was determined that the acid and caustic Ceilcote scrubber would be put back into use, and an additional scrubber would be installed.

Department of Health and Mental Hygiene Corrective Order No. 84-09-01 September 1984

Chesapeake Foods, Inc. was found to be in violation of Maryland's Air Quality Act, Health-Environmental Article 2-101 under the Maryland Code.

Department of the Environment Air Management Administration Operating Permit No. 23-00052 October 1990

Permit issued regarding the feather cookers, meat cookers, and feather dryer. A note was made that the lagoons that went septic in 1989 were still a source of odor.

MDE Emissions Certification January 2001

Tyson Foods, Inc. was required to certify air emissions which included particulate matter sulfur oxides, nitrogen oxides, carbon monoxide, and volatile organic compounds (VOCs).

MDE Consent Order #CO-90-0162, Hudson Foods, Inc. February 1990

MDE stated that Hudson Foods, Inc. exceeded the total suspended solids and biochemical oxygen demand effluent limitations on multiple occasions from November 1987 through November 1988. Hudson Foods, Inc. was ordered to ensure compliance and fined $7,500.

United States Environmental Protection Agency (USEPA) Court Settlement September 1998

A government complaint alleged water pollution violations from Hudson Foods, Inc. poultry processing and rendering plant in Berlin, Maryland which included discharging wastewater with

illegal levels of fecal coliform, phosphorous, nitrogen, ammonia, and other pollutants into Kitts Branch. Hudson Foods, Inc. was fined $4,000,000 and an additional $2,000,000 to address pollution. This plan included installation of denitrification equipment, add phytase enzyme to poultry feed, construct litter storage sheds to control nutrient runoff, a nutrient management plan project to assist local poultry growers, and apply alum to litter to reduce soluble phosphorous.

MDE Tyson Foods (PWSID#123-0052) Water System Inspection March 2000

MDE asked for a plan of action regarding benzene contamination in production well 1, to include a source identification of the benzene contamination, remediation of the contamination, treatment for well 1 if it remains in service, and plans for an alternate water supply if well 1 is taken out of service. The inspection also determined the water was corrosive (pH of 5.6) and the hydropneumatic tank was in poor condition.

MDE Letter regarding VOCs detected in subject site monitoring wells January 2001

Drinking water sample reported presence of benzene (4.9 parts per billion [ppb]), ethylbenzene (0.8 ppb), toluene (6.8 ppb), xylene (2.2 ppb), and methyl-tert-butyl ether (MTBE) (5.2 ppb) in Well 1. It was recommended to closely monitor Well 1, and that further use of the well could result in a water quality violation.

Source Water Assessment and Wellhead Protection Plan Including Production Wells Serving the Town of Berlin and the Tyson Foods Berlin Plan May 2004

Advanced Land and Water, Inc. (ALWI) reviewed groundwater quality records to conduct an assessment of groundwater susceptibility. ALWI concluded that Tyson's wells were susceptible to benzene and nitrates, which had concentrations that exceeded the Maximum Contaminant Level (MCL). Other gasoline constituents were detected in the Tyson wells that did not exceed the MCLs: ethylbenzene, toluene, and MTBE. Using the groundwater data, ALWI identified three potential offsite sources of the benzene contamination, which include the commercial property between Tyson and Berlin Well No. 2, Seitz Automotive, and Cheers/Mobil. Additionally, ALWI identified potential point sources of nitrate contamination to the aquifer as the wastewater storage lagoon and other private wells were not properly sealed. ALWI also recommended best management planning for Tyson in its protocols for handling, storing, and disposing of food processing and poultry waste, which may have led to groundwater infiltration of nitrates.

MDE Letter regarding Case No. 93-0030 June 2004

Two underground storage tanks (USTs) (2,000-gallon diesel and 3,000-gallon gasoline) were abandoned in place on 06 July 1992. A soil sample was collected from beneath each tank and a groundwater sample was collected from a well installed between the tank field and dispensing island. The groundwater sample detected benzene, toluene, ethylene, and xylenes (BTEX) at 4 ppb. The case was closed on 23 March 1994; however, it was reopened for review on 13 September 1999 due to BTEX detected at 15.9 ppb and MTBE detected at 4.1 ppb in production water supply well no. 1. Subsequently, Case No. 2000-0487-WO was assigned, and on 18

October 2000 monitoring well MW-1 was resampled. Ethylbenzene was detected at a trace level. Therefore, MDE granted permission to abandon the monitoring well which was completed on 19 December 2003.

Phase II Limited ESA Former Tyson Foods Processing Plant December 2004

A Phase II Limited ESA was performed to eliminate the Tyson Berlin Plant as the potential source of the trace benzene and MTBE contamination detected in groundwater wells located in the area of the Tyson Plant. Twenty groundwater monitoring wells were installed and a ground penetrating radar (GPR) study was performed to identify the presence of subsurface USTs. Soil samples reported VOCs, BTEX, and MTBE below the quantitation limits. Benzene was detected in two monitoring wells at or above the MCLs.

Froehling & Robertson, Inc. (F&R) determined that based on the information gathered during the assessment, the results of the previous assessments, and site history that it is unlikely that the Tyson property is the source of the contamination and recommended that the MDE Oil Control Program (OCP) close all open cases against the subject site.

Phase I ESA Tyson Foods Facility Berlin, Maryland March 2004

Hynes & Associates identified the following recognized environmental conditions (RECs) and provided recommendations:

- Several aboveground storage tanks (ASTs) were observed on the subject site which contained waste oil, #6 heating oil, hydraulic fluid, and diesel. Staining was also observed around the diesel ASTs. A recommendation was made to perform an evaluation of the subsurface near the two diesel ASTs and associated fuel dispenser to evaluate for the presence of petroleum contamination.

- No official documentation was available regarding the removal of the 12,000-gallon diesel fuel UST; however, documentation indicated the UST was removed in 1998. A recommendation was made to determine the former location of the UST, and perform a limited subsurface evaluation at that location to determine whether the subsurface has been impacted.

- A UST of unknown size was discovered on 05 August 2003 and abandoned in place. Accordingly, MDE closed Case No. 2004-0232 WO on 29 December 2003. No other information was available regarding the tank closure, so a recommendation was made that a file review be performed to determine whether any potential environmental conditions exist in the area of the UST.

- Eight MDE case files were identified that related to the Tysons facility. Seven are listed as closed. A recommendation was made to review the Well Head Protection report released by the Town of Berlin to determine if additional recommendations were required.

- Tyson Foods was issued an Oil Operations Permit on 24 June 2003, on the condition that certain issues were fixed within 60 days. At the time of the Phase I ESA, these issues had not been addressed. A recommendation was made that written documentation regarding the completion of the conditions be provided and reviewed, and a follow up site visit be made.

- The possible presence of an abandoned floor drain was observed inside the vehicle maintenance building. A recommendation was made that if a drain was abandoned, the discharge point of the drain be verified to determine whether a subsurface study was required.

Hynes & Associates also recommended that all chemical and petroleum products and the vessels used to store the products should be recycled or disposed of in accordance with applicable regulations, and that records be reviewed to evaluate the polychlorinated biphenyl (PCB) content of the operating transformers observed on the property.

Voluntary Cleanup Program (VCP) Site Assessment October 2005

In response to the Phase II ESA performed by F&R, MDE proposed additional limited supplemental soil and groundwater samples to fulfill the principles for a Phase II ESA. Trace metals and low-level VOCs were identified in the soil samples; however, none of the target compounds that were detected above the Non-Residential Cleanup Standards. The highest concentration of tentatively identified compounds (TICs) in the library search compounds was in the vicinity of the wastewater treatment plant. These compounds included palmitic acid, myristic acid, and stearic acid. Sulfur was identified in five of the soil samples, with the highest concentration in the vicinity of the abandoned 2,000-gallon heating oil USTs. No target compounds were reported above the laboratory quantitation limits for groundwater. The TICs library search did reveal concentrations of propane, butane, and tetrahydrofuran; however, there are currently no established reporting standards for these compounds.

Based on the findings and data gathered as part of the Site Assessment, F&R recommended that Tyson request a Notice of Compliance letter be issued for the subject site stating no further action is required. Additionally, as part of the Site Assessment the USTs, ASTs, and transformers were inventoried at the subject site and are provided in the following tabular summaries:

MDE VCP No Further Requirements Determination (NFRD) Letter November 2005

MDE determined there are no further requirements related to the investigation or remediation of controlled hazardous substances or oil identified at the subject site provided the property is used for unrestricted commercial (Tier 2A) or unrestricted industrial (Tier 3A) purposes in the future.

MDE VCP Application for Unrestricted Residential Use December 2005

Berlin Properties North, LLC submitted a VCP application that requested unrestricted residential use at the subject site. MDE requested supplemental soil and groundwater samples focused on

the portions of the subject site proposed for residential development that were not previously sampled under a commercial use scenario, such as the wastewater treatment lagoons. Additional samples were requested in the vicinity of the former truck scale, underneath the existing #6 oil AST, within the former boiler room in the main processing plant, and within the former maintenance room in the main processing plant for a total of 20 soil samples and two groundwater samples.

3.0 FIELD AND ANALYTICAL INVESTIGATION METHODS

The purpose of this investigation was to evaluate the potential for the historical Site uses to have impacted the environmental integrity of areas of the Site not addressed by previous investigations. Information obtained as part of this investigation is intended to support potential future recreational use(s) of the Site. Field sampling activities conducted as part of this investigation were performed in June 2015. A photograph log is included in Appendix C.

3.1 SOIL SAMPLING INVESTIGATION

On 09 June 2015, DPT was utilized by EA and Green Services, Inc. to advance seven soil borings throughout the Site to a maximum depth ranging from 8-20 ft bgs. Present sampling locations were located via global positioning system (GPS) by EA and Green Services, Inc. prior to sampling and are presented in Figure 2.

- Three borings located adjacent to the lagoons to the northeast (SS-02), to the west (SS-03), and to the south (SS-06)
- One boring located near the former truck scales (SS-07)
- One boring located near the former #6 fuel oil AST (SS-08)
- One boring located within the former boiler room (SS-09)
- One boring located near the former maintenance room (SS-10)

SS-10 was collected from an area adjacent to the former maintenance room instead of underneath the concrete floor of the former maintenance room since the floor consisted of an approximate 8-inch thick concrete slab, beneath which was an approximate 3-ft cinder block foundation. The building is illustrated in the Photograph Log in Appendix C.

3.1.1 Methodology

The investigative measures utilized for soil sample collection included using a truck-mounted DPT to advance soil cores, onsite documentation and recordkeeping, and laboratory analysis. These activities were performed on 09 June 2015.

Prior to initiation of the soil sampling effort, EA contacted Miss Utility to perform municipal utility mark out of the Site. Each boring was advanced by a hydraulically driven, 4-ft-long, stainless-steel barrel sampler (2-inch interior diameter) lined with a new, dedicated clean plastic liner for each 4-ft interval. Soil cores were collected continuously from grade to provide site lithology and characterization information. Soil cores were also screened visually as well by photoionization detector (PID) to detect the presence of VOCs. The results of the field screening were recorded in the field book. A surface sample from the 0-1 ft interval and a subsurface sample from the 4-5 ft interval were collected from the plastic liners from each boring, homogenized in a plastic dedicated bag, and then transferred to a laboratory-provided sample jar. Copies of the soil boring logs are provided in Appendix D.

All soil samples were analyzed for semi-volatile compounds (SVOCs) via USEPA method 8270D and Priority Pollutant List (PPL) metals via USEPA method 6010C and 7471B.

Additionally, SS-03, SS-07, SS-09, and SS-10 were analyzed for VOCs via USEPA method 8260B, SS-08, SS-09, and SS-10 were analyzed for total petroleum hydrocarbons (TPH) – diesel range organics (DRO) via USEPA method 8015, and SS-02 was analyzed for pesticides via USEPA method 8081A and herbicides via USEPA method 8151A.

3.2 GROUNDWATER SAMPLING INVESTIGATION

Soil boring SS-06 was converted to temporary groundwater well GW-03 and SS-02 was converted to temporary groundwater well GW-04. The temporary groundwater well locations are presented in Figure 2.

3.2.1 Methodology

On 09 June 2015, the temporary groundwater wells were installed with a 5-ft screen set at the 14.32-19.32 ft bgs depth interval for GW-03, and the 9.6-14.6 ft bgs depth interval for GW-04. Groundwater samples were collected on 10 June 2015. Prior to sampling, the depth to groundwater and total well depth were collected from each well. The interface probe was also used prior to sampling to record any presence of free product in the well. Groundwater samples were collected using low-flow sampling procedures with a peristaltic pump and disposable polyethylene tubing. During groundwater sampling, water quality parameters were recorded in 4-minute intervals using a YSI 6200 water quality meter equipped with an inline flow-through cell. Dissolved metals were field-filtered using a 0.45 micron filter in-line with the tubing. Samples were collected in laboratory-provided containers and then transferred to a laboratory-provided sample bottle. Copies of the well purge and sampling records are provided in Appendix E.

Groundwater samples were analyzed for VOCs via USEPA method 8260B and dissolved metals via USEPA method 6010C and 7470A.

3.3 LAGOON SOIL AND SURFACE WATER SAMPLING INVESTIGATION

On 10 June 2015, a dedicated hand auger was utilized by EA to advance three soil borings throughout the lagoons to a maximum depth of 5 ft bgs. Lagoon soil samples included:

- One sample located on the north side within the northern lagoon (SS-01)
- One sample located on the east side within the middle lagoon (SS-04)
- One sample located on the west side within the southern lagoon (SS-05)

Additionally, three surface water samples were collected from the south lagoon (SW-01), the middle lagoon (SW-02), and the north lagoon (SW-03). Sampling locations were located via GPS by EA prior to sampling and are presented in Figure 2 in Appendix A.

3.3.1 Methodology

The investigative measures utilized for soil sample collection included using a hand auger to advance soil borings, onsite documentation and recordkeeping, and laboratory analysis. These activities were performed on 10 June 2015.

Each boring was collected using a dedicated hand auger. Soil was also screened visually as well by PID to detect the presence of VOCs. The results of the field screening were recorded in the field book. A surface sample from the 0-1 ft interval and a subsurface sample from the 4-5 ft interval were collected, homogenized in a plastic dedicated bag, and then transferred to a laboratory-provided sample jar.

Surface water samples were collected using dedicated, sterile laboratory containers. The container was dipped into the surface water of the lagoon and then sealed.

Soil samples were analyzed for SVOCs via USEPA method 8270D and PPL metals via USEPA method 6010C and 7471B. Surface water samples were analyzed for enterococci and E. coli.

3.3.2 Sample Identification

Samples collected for analysis were recorded in field notes and kept on file for reference. Each sample collected during field activities was given unique sample identification (ID). The sample identification included the project number, sample location, and depth of sample. For example:

SS-01-0-1 represents Soil Sample – designated location number – depth interval

GW-03 represents groundwater sample – designated location number

SW-01 represents surface water – designated location number

Quality assurance/quality control (QA/QC) samples were also given unique sample designations. Field personnel recorded designations of field samples corresponding to each QA/QC sample on the boring logs and in the field notebooks, but not on the chain-of-custody and sample container. Figure 2 illustrates soil, groundwater, and surface water sample designations, and locations for each sample.

3.3.3 Chain of Custody

Samples were shipped from a Fed-Ex under strict chain of custody to Empirical Laboratories, LLC of Nashville, Tennessee for analysis. Samples were analyzed with standard turn-around times of 10 days from receipt of samples. Surface water samples were dropped off at Chesapeake Labs, Inc. of Salisbury, Maryland for analysis.

Chain-of-custody forms were initiated by the sampler at the time samples were collected. The coolers were labeled, the chain-of-custody was placed inside, and the coolers were secured with custody seals. Upon receipt and opening of the coolers, the laboratory sample custodian

measured and recorded the temperature inside the coolers, which did not exceed 4-degrees Celsius (^{o}C).

3.3.4 Quality Assurance and Quality Control

QA/QC samples collected as part of the soil sampling activities consisted of:

- Two blind soil duplicate samples analyzed for SVOCs and PPL metals.
- One blind soil duplicate sample analyzed for TPH-DRO and VOCs.
- One blind groundwater sample analyzed for VOCs.
- One soil matrix spike/matrix spike duplicate (MS/MSD) analyzed for SVOCs, PPL metals, TPH-DRO, and VOCs.
- One groundwater MS/MSD analyzed for VOCs.
- One trip blank analyzed for VOCs.

The locations of the duplicate QA/QC samples were collected are shown in summary tables located in Appendix B. The trip blank reported a slight detection of methylene chloride; however, remaining analytes were less than the method detection limit. The relative percent diference for soil and groundwater duplicates were less than 20%, which is within the project data quality objectives.

3.4 INVESTIGATIVE-DERIVED WASTE

Investigative-derived waste (IDW) generated onsite consisted of soils, used expendables (personal protective equipment, paper towels), and purged groundwater. Used expendables were bagged and disposed of offsite as municipal waste. Soils from the DPT borings were used to backfill each hole and bentonite was used to fill each boring flush with the existing ground surface. Purged groundwater was disposed of in the onsite lagoons.

4.0 RESULTS AND DISCUSSION

Laboratory samples were compared against the MDE Residential Soil Clean-up Standard for Soil and the MDE Anticipated Typical Concentrations (ATCs) for Eastern Maryland for soil and groundwater. The MDE does not publish generic cleanup values for recreational land use, therefore the analytical results were compared to the MDE Generic Residential Cleanup Goals. The recreational cleanup goals will depend on the nature and designation of recreational activities. These goals are expected to be less conservative than the Residential Soil Cleanup Standards; therefore, analytical results that are below the residential criteria would also fall below the recreational goals. The surface water samples were compared against the MDE Recreational Water Quality Criteria. A summary of the analytical results is presented in Tables 1, 2, and 3 in Appendix B. A complete laboratory analytical report is presented in Appendix F.

4.1 SOIL GEOLOGY

Soils in the vicinity of the lagoons consisted of orange and grey sand-silt mixtures with organic black clayey silts above the water table, and greyish white sands with silt below the water table. The soils by the processing plant consisted of mainly brown, grey, and orange sands, with some silt and clay lenses. Photographs illustrating soils are included in the Photograph Log in Appendix C.

4.2 SOIL ANALYTICAL RESULTS

PPL Metals: Of the 14 surface and subsurface samples analyzed from seven locations (SS-02, SS-03, SS-06, SS-07, SS-08, SS-09, SS-10), 13 samples (all except SS-09-0-1) reported concentrations of arsenic ranging from 0.755 to 2.18 milligrams per kilogram (mg/kg) in surface soils which exceeded the MDE Residential Soil Clean-up Standard (0.67 mg/kg), but were less than the ATC for Eastern Maryland (3.6 mg/kg). No other PPL metals exceeded the MDE Residential Soil Clean-up Standards or ATCs for Eastern Maryland.

Pesticides: SS-02 surface and subsurface samples were analyzed for pesticides/herbicides. The two samples reported detections less than the MDE Residential Soil Clean-up Standards.

SVOCs: Of the 14 surface and subsurface samples analyzed from seven locations (SS-02, SS-03, SS-06, SS-07, SS-08, SS-09, SS-10), one sample (SS-10-0-1) reported concentrations of benzo(a)anthracene at 248 micrograms per kilogram (µg/kg), and benzo(a)pyrene at 244 µg/kg, which exceeded the MDE Residential Soil Clean-up Standards of 220 and 22 µg/kg, respectively. No other SVOCs exceeded the MDE Residential Soil Clean-up Standards.

VOCs: Eight surface and subsurface samples analyzed from four locations (SS-03, SS-07, SS-09, SS-10) reported detections less than the MDE Residential Soil Clean-up Standards.

TPH-DRO: Six surface and subsurface samples analyzed from three locations (SS-08, SS-09, SS-10) reported detections less than the MDE Residential Soil Clean-up Standards. Detections of TPH-DRO were higher at the subsurface in SS-08, and were higher at the surface at SS-09 and SS-10.

4.3 GROUNDWATER ANALYTICAL RESULTS

Groundwater results for GW-03 reported detections of dissolved arsenic, dissolved lead, and acetone less than the MDE Type I and II Aquifers Groundwater Standards for metals and VOCs. All remaining analytes for GW-03 were reported below the Method Detection Limit. Groundwater results for GW-04 reported detections of acetone less than the MDE Type I and II Aquifers Groundwater Standards for VOCs. All remaining analytes for GW-04 were reported below the Method Detection Limit.

4.4 LAGOON SOIL GEOLOGY

A total of three sample locations were collected to evaluate the soil/sediment within the lagoons (SS-01, SS-04, SS-05).

The sediments in the smaller southern lagoon consisted of 6-12 inches of light grey sandy sludge-like material. The subsurface soil consisted of a denser light grey clayey silt with sand. Depth of the water was approximately 2-3 ft along the edge, with a gradual incline to approximately 8 ft in the middle of the lagoon. The water quality in the smaller southern lagoon was clear.

The sediments in the middle lagoon consisted of approximately 12 inches of brown sandy sludge-like material with wood debris. The subsurface soil consisted of a brown to dark brown silty sand. The sediments in the northern lagoon consisted of approximately 30 inches of brown sandy sludge-like material, with a strong fecal odor. The subsurface soil consisted of a light brown silty sand. Depth of water was approximately 1-2 ft along the edge of the middle and southern lagoons, with a maximum depth of 4 ft towards the middle of the lagoons. The sides of the lagoons were heavily vegetated with woody vegetation. Additionally, the bottom of the lagoon towards the center appeared to be hard. Photographs illustrating lagoon soils are included in the Photograph Log in Appendix C.

4.5 LAGOON SOIL AND SURFACE WATER ANALYTICAL RESULTS

PPL Metals: Of the six surface and subsurface samples analyzed from three locations (SS-01, SS-04, SS-05), the surface and subsurface samples from SS-01 and SS-05 reported concentrations of arsenic ranging from 0.926 to 1.18 mg/kg in surface soils which exceeded the MDE Residential Soil Clean-up Standard (0.67 mg/kg), but were less than the ATC for Eastern Maryland (3.6 mg/kg). No other PPL metals exceeded the MDE Residential Soil Clean-up Standards or ATCs for Eastern Maryland.

SVOCs: Of the six surface and subsurface samples analyzed from three locations (SS-01, SS-04, SS-05), all results were reported less than method detection limit.

Of the three surface water samples collected, SW-03 had results of E. coli and enterococci at 261.3 and 103.1 most probable number per 100 milliliters (MPN/100 ml), respectively, which is greater than the MDE Recreational Use Criteria of 235 and 61 MPN/100 ml, respectively. SW-02 reported detections of E. coli and enterococci less than the MDE Recreational Use Criteria at 16.9 and 19.1 MPN/100 ml, respectively.

5.0 CONCLUSIONS

The soil, groundwater, and surface water sample data obtained in the June 2015 investigation was evaluated to determine potential impacts for recreational use to the Site.

The results of all the Site investigation efforts confirm the following:

- Concentrations of arsenic were reported slightly greater than the MDE Residential Soil Clean-up Standards throughout the Site in surface and subsurface samples. However, no results were reported that exceeded the MDE ATCs.

- Benzo(a)pyrene and benzo(a)anthracene were reported in a single surface sample located adjacent to the former maintenance room greater than the MDE Residential Soil Clean-up Standards. Based on the results from prior investigations and the proposed recreational land use, the levels of PAHs observed are not anticipated to represent an exposure concern for the recreational user.

- E.coli and enterococci were reported in surface water sample SW-03, located at the northernmost edge of the lagoons, greater than the MDE Recreational Use Criteria.

Based on review of the soil and groundwater analytical data it appears that there are no analytes of concern detected at concentrations or frequency that would represent a human health concern for future recreational users of the Site. Concentrations of E. coli and enterococci reported at the northernmost edge of the lagoons indicate an exposure concern associated with the recreational use of the lagoon water.

6.0 DISCLAIMER

EA does not warrant that there were no toxic or hazardous materials or contamination, nor does EA accept any liability if such were found at some future time, or could have been found if sampling or additional studies were conducted. EA does not assume responsibility for other environmental issues that may be associated with this subject property.

In view of the rapidly changing status of environmental laws, regulations, and guidelines, EA cannot be responsible for changes in laws, regulations, or guidelines which occur after the study has been completed and which may affect the subject property.

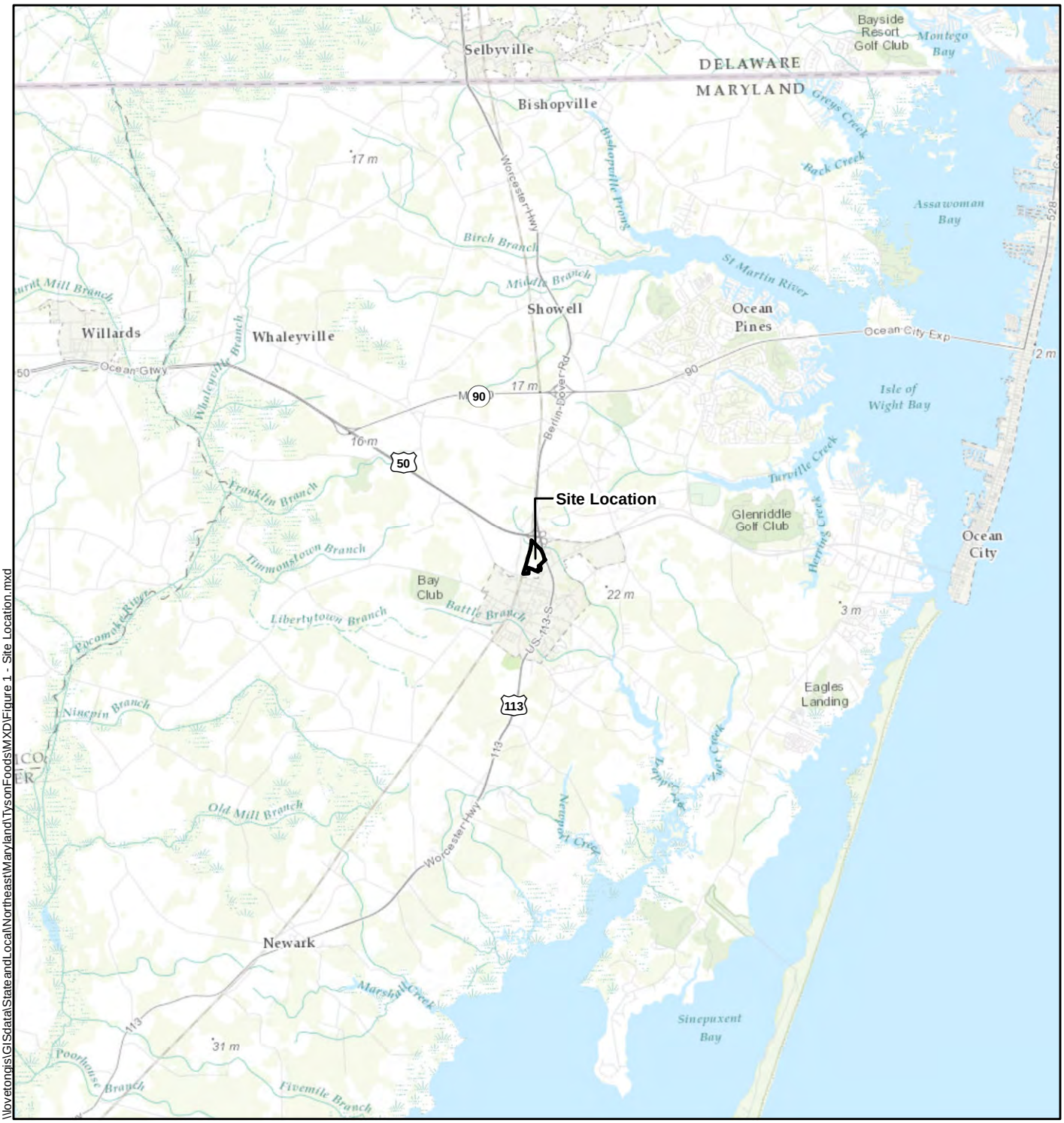
7.0 REFERENCES

- Advanced Land and Water, Inc. (ALWI). 2004. Source Water Assessment and Wellhead Protection Plan Including Production Wells Serving the Town of Berlin and the Tyson Foods Berlin Plant. 27 May.
- Bureau of Air Quality and Noise Control. 1977. Odor Complaint. 04 October.
- Department of Health and Mental Hygiene. 1984. Corrective Order No. 84-09-01. 11 September.
- EA Engineering, Science, and Technology, Inc. Draft Phase I Environmental Site Assessment for Tyson Foods, 9943 and 10009 Old Ocean City Boulevard, Berlin, Maryland 21811. June.
- Froehling & Robertson, Inc. (F&R). 2004. Phase II Limited Environmental Site Assessment Former Tyson Foods Processing Plant. 17 December.
- Hynes & Associates. 2004. Phase I Environmental Site Assessment Tyson Foods Facility Berlin, Maryland. 19 March.
- Maryland Department of the Environment (MDE). 1990. Consent Order #CO-90-0162, Hudson Foods, Inc. 13 February.
- MDE Air Management Administration. 1990. Operating Permit No. 23-00052. 01 October.
- MDE. 2000. Tyson Foods (PWSID#123-0052) Water System Inspection. 08 March.
- MDE. 2001. Emissions Certification. 11 January.
- MDE. 2001. Letter regarding VOCs detected in subject site monitoring wells. 11 January.
- MDE. 2004. Letter regarding Case No. 93-0030. 07 June.
- MDE. 2005a. Letter regarding VCP No Further Requirements Determination. 03 November.
- MDE. 2005c. Letter regarding VCP Application for Unrestricted Residential Use. 22 December.
- MDE. 2008. State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater. Interim Final Guidance (Update No. 2.1). June.
- MDE. 2013. *Facts About: EPA's New Water Quality Criteria for Beaches, Recreational Water Quality Criteria.* January.

- United States Department of Agriculture, Natural Resource Conservation Service. 2015. Web Soil Survey of Worcester County, Maryland. (http://websoilsurvey.nrcs.usda.gov/app/).
- United States Environmental Protection Agency (USEPA). 1998. Court Settlement. 14 September.

Appendix A

Figures



\\lovetongis\GISdata\StateandLocal\Northeast\Maryland\TysonFoods\MXD\Figure 1 - Site Location.mxd

VICINITY MAP

Legend

Approximate Subject Site Boundary

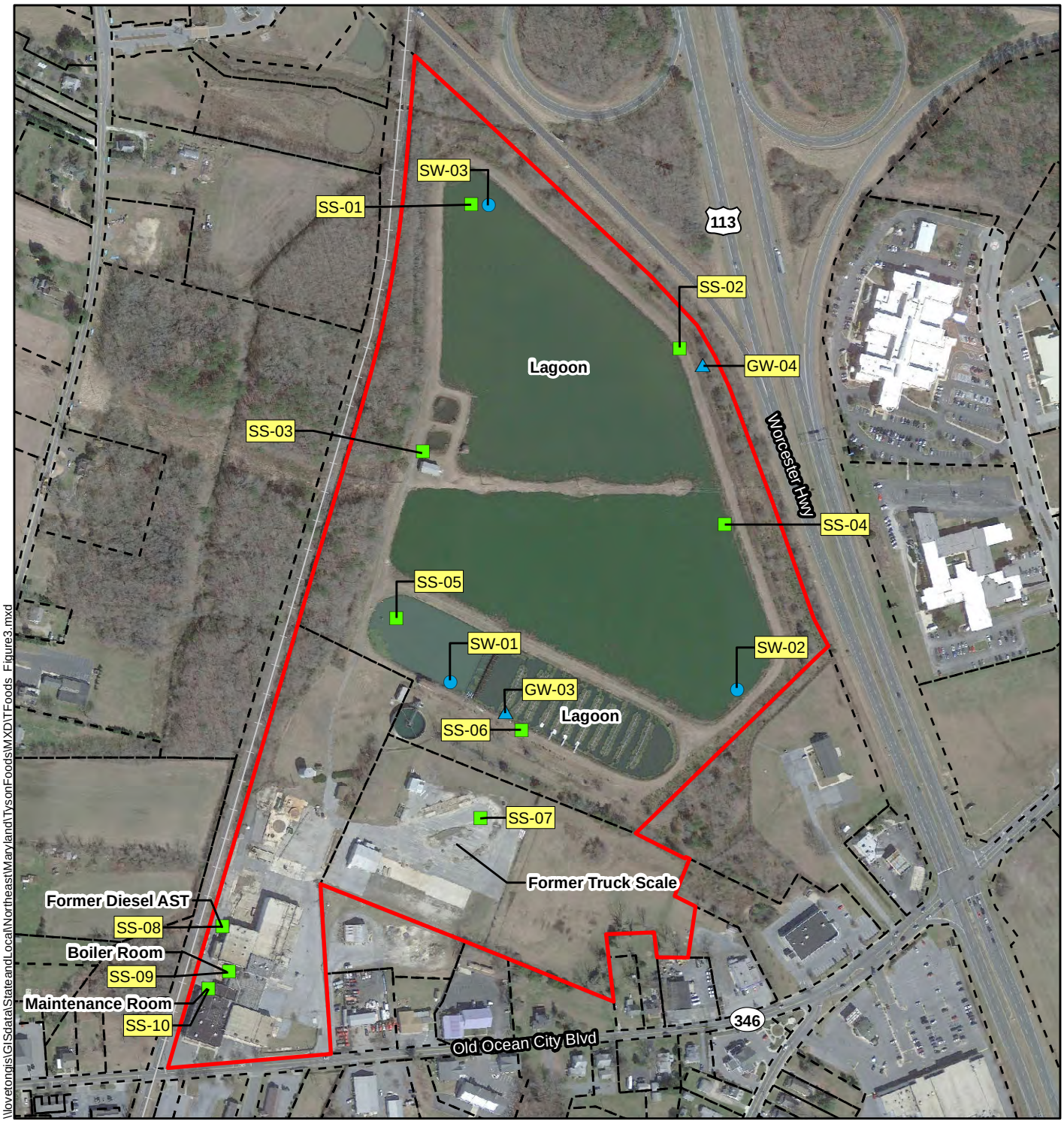
0 1 2
Miles

N

Figure 1
Site Location Figure
Tyson Foods
Berlin, Maryland

Data Sources:
Google Earth 2013
MDP 2012

Map Date: 6/23/2015



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VICINITY MAP

Legend

- Surface Water Sample (SW)
- Groundwater Sample (GW)
- Soil Sample (SS)
- Railroad Track
- Approximate Subject Site Boundary
- Property Parcel

0 250 500
Feet

N

Figure 2
Sample Locations
Tyson Foods
Berlin, Maryland

Data Sources:
Google Earth 2013
MDP 2012

Map Date: 6/29/2015

Appendix B

Tables

Table 1. Soil Analytical Summary

			Location	SS-01	SS-01	SS-02	SS-02	SS-03	SS-03	SS-03	SS-04	SS-04	SS-05	SS-05
			Sample Name	SS-01-0-1	SS-01-4-5	SS-02-0-1	SS-02-4-5	SS-03-0-1	SS-03-4-5	DUP-01	SS-04-0-1	SS-04-4-5	SS-05-0-1	SS-05-4-5
			Parent Sample Name							SS-03-4-5				
			Sample Date	6/10/2015	6/10/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/10/2015	6/10/2015	6/10/2015	6/10/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
Metals (SW6010C and SW7471B)														
Antimony	3.1	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.67	3.6	mg/kg	**0.926 J**	**1.06 J**	**0.832 J**	**1.19 J**	**0.755 J**	**0.986 J**	**1.01 J**	ND	ND	**1.02 J**	**1.18 J**
Beryllium	16	NS	mg/kg	ND	ND	ND	0.256 J	ND	0.227 J	ND	ND	ND	ND	0.257 J
Cadmium	3.9	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	23	280	mg/kg	3.70	4.71	6.41	10.1	7.31	11.2	9.69	5.22	3.62	5.32	13.0
Copper	310	NS	mg/kg	13.3	2.52	2.21 J	2.44	1.04 J	2.10 J	1.94 J	20.4	7.52	2.60	3.69
Lead	400	NS	mg/kg	6.43	5.45	6.08	8.84	10.8	6.74	5.95	4.72	5.59	8.56	6.70
Mercury	0.78	NS	mg/kg	ND	ND	ND	0.0344 J	ND	ND	0.0176 J	ND	ND	ND	ND
Nickel	160	NS	mg/kg	3.37	2.43	2.13 J	3.24	1.79 J	3.96	3.68	3.16 J	2.55 J	1.94 J	3.90
Selenium	39	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	39	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.55	3.9	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2300	NS	mg/kg	64.5	5.60	5.69	7.53	5.93	9.95	9.63	47.8	15.2	8.44	9.04
Diesel Range Organics (SW8015C)														
Diesel Range Organics	230	NS	mg/kg	--	--	--	--	--	--	--	--	--	--	--
Pesticides (SW8081B)														
4,4-DDD	2700	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
4,4-DDT	1900	NS	µg/kg	--	--	0.845	ND	--	--	--	--	--	--	--
alpha-BHC	100	NS	µg/kg	--	--	0.377 BJ	--	--	--	--	--	--	--	--
alpha-Chlordane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Chlordane	1800	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
delta-BHC	490	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Dieldrin	40	NS	µg/kg	--	--	0.302 J	--	--	--	--	--	--	--	--
Endosulfan I	47000	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Endosulfan II	47000	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Endosulfan sulfate	47000	NS	µg/kg	--	--	4.33	ND	--	--	--	--	--	--	--
Endrin	2300	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Endrin aldehyde	2300	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Endrin ketone	2300	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Heptachlor	140	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Heptachlor epoxide	70	NS	µg/kg	--	--	--	ND	--	--	--	--	--	--	--
Methoxychlor	39000	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Toxaphene	580	NS	µg/kg	--	--	ND	ND	--	--	--	--	--	--	--
Volatile Organic Compounds (SW8260B)														
1,1,1-trichloroethane	16000000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,1,2,2-tetrachloroethane	3200	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,1,2-trichloroethane	11000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,1-dichloroethane	1600000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,1-dichloroethene	390000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,2,4-trichlorobenzene	78000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--

Table 1. Soil Analytical Summary

			Location	SS-01	SS-01	SS-02	SS-02	SS-03	SS-03	SS-03	SS-04	SS-04	SS-05	SS-05
			Sample Name	SS-01-0-1	SS-01-4-5	SS-02-0-1	SS-02-4-5	SS-03-0-1	SS-03-4-5	DUP-01	SS-04-0-1	SS-04-4-5	SS-05-0-1	SS-05-4-5
			Parent Sample Name							SS-03-4-5				
			Sample Date	6/10/2015	6/10/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/10/2015	6/10/2015	6/10/2015	6/10/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
1,2-Dibromo-3-chloropropane	200	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,2-dibromoethane	320	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,2-dichlorobenzene	700000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,2-dichloroethane	7000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,2-dichloropropane	9400	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,3-dichlorobenzene	23000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
1,4-dichlorobenzene	27000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
2-butanone	4700000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
2-hexanone	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
4-methyl-2-pentanone	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Acetone	7000000	NS	µg/kg	--	--	--	--	23.9	8.44 J	7.44 J	--	--	--	--
Benzene	12000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Bromodichloromethane	10000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Bromoform	81000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Bromomethane	11000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Carbon disulfide	780000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Carbon tetrachloride	4900	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Chlorobenzene	160000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Chloroethane	220000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Chloroform	78000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Chloromethane	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
cis-1,2-dichloroethene	78000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
cis-1,3-dichloropropene	6400	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Cyclohexane	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Dibromochloromethane	7600	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Dichlorodifluoromethane	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Ethylbenzene	780000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Isopropylbenzene	780000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
M,P-Xylene	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Methyl acetate	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Methyl tert-butyl ether	160000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Methylcyclohexane	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Methylene Chloride	85000	NS	µg/kg	--	--	--	--	ND	ND	2.30 J	--	--	--	--
o-Xylene	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Styrene	1600000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Tetrachloroethene	1200	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Toluene	630000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
trans-1,2-dichloroethene	160000	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
trans-1,3-dichloropropene	6400	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Trichloroethene	1600	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Trichlorofluoromethane	NS	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--
Vinyl chloride	90	NS	µg/kg	--	--	--	--	ND	ND	ND	--	--	--	--

Table 1. Soil Analytical Summary

			Location	SS-01	SS-01	SS-02	SS-02	SS-03	SS-03	SS-03	SS-04	SS-04	SS-05	SS-05
			Sample Name	SS-01-0-1	SS-01-4-5	SS-02-0-1	SS-02-4-5	SS-03-0-1	SS-03-4-5	DUP-01	SS-04-0-1	SS-04-4-5	SS-05-0-1	SS-05-4-5
			Parent Sample Name							SS-03-4-5				
			Sample Date	6/10/2015	6/10/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/10/2015	6/10/2015	6/10/2015	6/10/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
Semi-Volatile Organic Compounds (SW8270D)														
1,1-biphenyl	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-oxybis(1-chloropropane)	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-trichlorophenol	780000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	58000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dichlorophenol	23000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dimethylphenol	160000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrophenol	16000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrotoluene	16000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-dinitrotoluene	7800	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-chloronaphthalene	630000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-chlorophenol	39000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	31000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methylphenol	390000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	1400	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloroaniline	31000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methylphenol	39000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	470000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	470000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	2900	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	220	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	22	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	220	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	230000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 1. Soil Analytical Summary

			Location	SS-01	SS-01	SS-02	SS-02	SS-03	SS-03	SS-03	SS-04	SS-04	SS-05	SS-05
			Sample Name	SS-01-0-1	SS-01-4-5	SS-02-0-1	SS-02-4-5	SS-03-0-1	SS-03-4-5	DUP-01	SS-04-0-1	SS-04-4-5	SS-05-0-1	SS-05-4-5
			Parent Sample Name							SS-03-4-5				
			Sample Date	6/10/2015	6/10/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/10/2015	6/10/2015	6/10/2015	6/10/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
Benzo[k]fluoranthene	2200	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl butyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy) methane	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	580	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	46000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	32000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	22000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz[a,h]anthracene	22	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7800	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	780000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	310000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	310000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloro-1,3-butadiene	8200	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	400	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	47000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	46000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-c,d]pyrene	220	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	670000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	160000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	3900	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	91	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	130000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	5300	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	2300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	230000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

MDE RES Soil = Maryland Department of Environment residential cleanup standards for soil, date June 2008.

ATC = Anticipated Typical Concentration.

NS = No screening criteria.

-- = Not analyzed.

J = Estimated concentration.

B = Blank Detection.

Bold = Exceeds MDE RES Soil

Gray Shade = ATC

mg/kg = Milligrams per kilogram

µg/kg = Micrograms per kilogram

ND = Not Detected.

Table 1. Soil Analytical Summary

			Location	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-08	SS-09	SS-09	SS-10	SS-10
			Sample Name	SS-06-0-1	SS-06-4-5	SS-07-0-1	SS-07-4-5	SS-08-0-1	DUP-02	SS-08-4-5	SS-09-0-1	SS-09-4-5	SS-10-0-1	SS-10-4-5
			Parent Sample Name						SS-08-0-1					
			Sample Date	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
Metals (SW6010C and SW7471B)														
Antimony	3.1	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.67	3.6	mg/kg	**0.967 J**	**1.98 J**	**2.18 J**	**0.917 J**	**1.02 J**	**1.01 J**	**0.838 J**	ND	**1.66 J**	**1.80 J**	**2.05 J**
Beryllium	16	NS	mg/kg	0.238 J	ND	ND	0.310 J	ND	ND	ND	ND	ND	0.237 J	0.340 J
Cadmium	3.9	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	23	280	mg/kg	9.86	12.8	5.74	17.5	4.20	3.89	4.55	3.62	5.08	6.28	9.69
Copper	310	NS	mg/kg	3.14	2.36 J	4.11	3.17	2.11 J	1.67 J	4.10	7.96	1.35 J	3.15	3.21
Lead	400	NS	mg/kg	6.66	5.23	2.40	6.64	2.81	2.22	3.75	3.99	10.1	6.60	4.52
Mercury	0.78	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.0201 J	0.0239 J	ND
Nickel	160	NS	mg/kg	3.03	3.20	2.03 J	3.05	2.25 J	2.03 J	2.04 J	39.3	1.77 J	3.51	4.56
Selenium	39	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	39	NS	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.55	3.9	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2300	NS	mg/kg	5.58	3.80 J	10.1	7.28	11.2	8.07	444	44.0	7.13	11.1	8.31
Diesel Range Organics (SW8015C)														
Diesel Range Organics	230	NS	mg/kg	--	--	--	--	14.4 J	16.0	34.2	72.7	24.0	44.9	13.8 J
Pesticides (SW8081B)														
4,4-DDD	2700	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
4,4-DDT	1900	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
alpha-BHC	100	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
alpha-Chlordane	NS	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Chlordane	1800	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
delta-BHC	490	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Dieldrin	40	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I	47000	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Endosulfan II	47000	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Endosulfan sulfate	47000	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Endrin	2300	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde	2300	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Endrin ketone	2300	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Heptachlor	140	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Heptachlor epoxide	70	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Methoxychlor	39000	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Toxaphene	580	NS	µg/kg	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (SW8260B)														
1,1,1-trichloroethane	16000000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	3200	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,1,2-trichloroethane	11000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,1-dichloroethane	1600000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,1-dichloroethene	390000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,2,4-trichlorobenzene	78000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND

Table 1. Soil Analytical Summary

			Location	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-08	SS-09	SS-09	SS-10	SS-10
			Sample Name	SS-06-0-1	SS-06-4-5	SS-07-0-1	SS-07-4-5	SS-08-0-1	DUP-02	SS-08-4-5	SS-09-0-1	SS-09-4-5	SS-10-0-1	SS-10-4-5
			Parent Sample Name						SS-08-0-1					
			Sample Date	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
1,2-Dibromo-3-chloropropane	200	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,2-dibromoethane	320	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,2-dichlorobenzene	700000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,2-dichloroethane	7000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,2-dichloropropane	9400	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,3-dichlorobenzene	23000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
1,4-dichlorobenzene	27000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
2-butanone	4700000	NS	µg/kg	--	--	ND	ND	--	--	--	9.72	ND	2.66 J	ND
2-hexanone	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
4-methyl-2-pentanone	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Acetone	7000000	NS	µg/kg	--	--	10.5 J	ND	--	--	--	50.8	14.4 J	22.5	25.1 N
Benzene	12000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Bromodichloromethane	10000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Bromoform	81000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Bromomethane	11000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Carbon disulfide	780000	NS	µg/kg	--	--	1.27 J	ND	--	--	--	ND	2.43 J	3.98 J	1.30 J
Carbon tetrachloride	4900	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Chlorobenzene	160000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Chloroethane	220000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Chloroform	78000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Chloromethane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
cis-1,2-dichloroethene	78000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
cis-1,3-dichloropropene	6400	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Cyclohexane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Dibromochloromethane	7600	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Dichlorodifluoromethane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Ethylbenzene	780000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Isopropylbenzene	780000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
M,P-Xylene	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Methyl acetate	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Methyl tert-butyl ether	160000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Methylcyclohexane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	2.42 J	ND
Methylene Chloride	85000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
o-Xylene	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Styrene	1600000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Tetrachloroethene	1200	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Toluene	630000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
trans-1,2-dichloroethene	160000	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
trans-1,3-dichloropropene	6400	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Trichloroethene	1600	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Trichlorofluoromethane	NS	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND
Vinyl chloride	90	NS	µg/kg	--	--	ND	ND	--	--	--	ND	ND	ND	ND

Table 1. Soil Analytical Summary

			Location	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-08	SS-09	SS-09	SS-10	SS-10
			Sample Name	SS-06-0-1	SS-06-4-5	SS-07-0-1	SS-07-4-5	SS-08-0-1	DUP-02	SS-08-4-5	SS-09-0-1	SS-09-4-5	SS-10-0-1	SS-10-4-5
			Parent Sample Name						SS-08-0-1					
			Sample Date	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
Semi-Volatile Organic Compounds (SW8270D)														
1,1-biphenyl	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-oxybis(1-chloropropane)	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-trichlorophenol	780000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	58000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dichlorophenol	23000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dimethylphenol	160000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrophenol	16000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrotoluene	16000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-dinitrotoluene	7800	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-chloronaphthalene	630000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-chlorophenol	39000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	31000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methylphenol	390000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	1400	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloroaniline	31000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methylphenol	39000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	470000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	470000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	92.0 J	ND
Atrazine	2900	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	220	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	**248 J**	ND
Benzo[a]pyrene	22	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	**244 J**	ND
Benzo[b]fluoranthene	220	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	206 J	ND
Benzo[g,h,i]perylene	230000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	165 J	ND

Table 1. Soil Analytical Summary

			Location	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-08	SS-09	SS-09	SS-10	SS-10
			Sample Name	SS-06-0-1	SS-06-4-5	SS-07-0-1	SS-07-4-5	SS-08-0-1	DUP-02	SS-08-4-5	SS-09-0-1	SS-09-4-5	SS-10-0-1	SS-10-4-5
			Parent Sample Name						SS-08-0-1					
			Sample Date	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
			Sample Depth	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft	0-1 ft	4-5 ft
Analyte	**MDE RES Soil**	**ATC**	**Unit**											
Benzo[k]fluoranthene	2200	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	203 J	ND
Benzyl butyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy) methane	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl) ether	580	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	46000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	32000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	22000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	238 J	ND
Dibenz[a,h]anthracene	22	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7800	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	780000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	310000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	452	ND
Fluorene	310000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloro-1,3-butadiene	8200	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	400	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	47000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	46000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-c,d]pyrene	220	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	187 J	ND
Isophorone	670000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	160000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	3900	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	91	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	130000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	5300	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	2300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	339 J	ND
Phenol	2300000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	230000	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	396	ND

Notes:

MDE RES Soil = Maryland Department of Environment residential cleanup st

ATC = Anticipated Typical Concentration.

NS = No screening criteria.

-- = Not analyzed.

J = Estimated concentration.

B = Blank Detection.

Bold = Exceeds MDE RES Soil

Gray Shade = ATC

mg/kg = Milligrams per kilogram

µg/kg = Micrograms per kilogram

ND = Not Detected.

Table 2. Groundwater Analytical Summary

		Location	GW-03	GW-04	GW-04
		Sample Name	GW-03	GW-04	DUP-GW-01
		Parent Sample Name			GW-04
		Sample Date	6/10/2015	6/10/2015	6/10/2015
Analyte	**GW**	**Unit**			
Metals (SW6010C and SW7470)					
Antimony	6	µg/l	ND	ND	--
Arsenic	10	µg/l	3.84 J	ND	--
Beryllium	4	µg/l	ND	ND	--
Cadmium	5	µg/l	ND	ND	--
Chromium	100	µg/l	ND	ND	--
Copper	1300	µg/l	ND	ND	--
Lead	15	µg/l	4.77 J	ND	--
Mercury	0.37	µg/l	ND	ND	--
Nickel	73	µg/l	ND	ND	--
Selenium	50	µg/l	ND	ND	--
Silver	100	µg/l	ND	ND	--
Thallium	2	µg/l	ND	ND	--
Zinc	5000	µg/l	ND	ND	--
Volatile Organic Compounds (SW8260B)					
1,1,1-trichloroethane	200	µg/l	ND	ND	ND
1,1,2,2-tetrachloroethane	0.053	µg/l	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	µg/l	ND	ND	ND
1,1,2-trichloroethane	5	µg/l	ND	ND	ND
1,1-dichloroethane	90	µg/l	ND	ND	ND
1,1-dichloroethene	7	µg/l	ND	ND	ND
1,2,4-trichlorobenzene	70	µg/l	ND	ND	ND
1,2-Dibromo-3-chloropropane	NS	µg/l	ND	ND	ND
1,2-dibromoethane	0.05	µg/l	ND	ND	ND
1,2-dichlorobenzene	600	µg/l	ND	ND	ND
1,2-dichloroethane	5	µg/l	ND	ND	ND
1,2-dichloropropane	5	µg/l	ND	ND	ND
1,3-dichlorobenzene	1.8	µg/l	ND	ND	ND
1,4-dichlorobenzene	75	µg/l	ND	ND	ND
2-butanone	700	µg/l	ND	ND	ND
2-hexanone	NS	µg/l	ND	ND	ND
4-methyl-2-pentanone	630	µg/l	ND	ND	ND
Acetone	550	µg/l	31.4 D	30.6 D	49.0 D
Benzene	5	µg/l	ND	ND	ND
Bromodichloromethane	80	µg/l	ND	ND	ND
Bromoform	80	µg/l	ND	ND	ND
Bromomethane	0.85	µg/l	ND	ND	ND
Carbon disulfide	100	µg/l	ND	ND	ND
Carbon tetrachloride	5	µg/l	ND	ND	ND
Chlorobenzene	100	µg/l	ND	ND	ND
Chloroethane	3.6	µg/l	ND	ND	ND
Chloroform	80	µg/l	ND	ND	ND
Chloromethane	19	µg/l	ND	ND	ND
cis-1,2-dichloroethene	70	µg/l	ND	ND	ND
cis-1,3-dichloropropene	0.44	µg/l	ND	ND	ND
Cyclohexane	NS	µg/l	ND	ND	ND
Dibromochloromethane	80	µg/l	ND	ND	ND
Dichlorodifluoromethane	NS	µg/l	ND	ND	ND

Table 2. Groundwater Analytical Summary

		Location	GW-03	GW-04	GW-04
		Sample Name	GW-03	GW-04	DUP-GW-01
		Parent Sample Name			GW-04
		Sample Date	6/10/2015	6/10/2015	6/10/2015
Analyte	**GW**	**Unit**			
Ethylbenzene	700	µg/l	ND	ND	ND
Isopropylbenzene	66	µg/l	ND	ND	ND
M,P-Xylene	NS	µg/l	ND	ND	ND
Methyl acetate	NS	µg/l	ND	ND	ND
Methyl tert-butyl ether	20	µg/l	ND	ND	ND
Methylcyclohexane	NS	µg/l	ND	ND	ND
Methylene Chloride	5	µg/l	ND	ND	ND
o-Xylene	NS	µg/l	ND	ND	ND
Styrene	100	µg/l	ND	ND	ND
Tetrachloroethene	5	µg/l	ND	ND	ND
Toluene	1000	µg/l	ND	ND	ND
trans-1,2-dichloroethene	100	µg/l	ND	ND	ND
trans-1,3-dichloropropene	0.44	µg/l	ND	ND	ND
Trichloroethene	5	µg/l	ND	ND	ND
Trichlorofluoromethane	NS	µg/l	ND	ND	ND
Vinyl chloride	2	µg/l	ND	ND	ND

Notes:
MDE GW = Maryland Department of Environment cleanup standards for Groundwater, Type I and II aquifers, date June 2008.
NS = No screening criteria.
-- = Not analyzed.
D = Dilution
J = Estimated concentration.
Bold = Exceeds MDE GW
µg/l = Micrograms per liter

Table 3. Surface Water Analytical Summary Table

		Sample Name:	EA SW-01	EA SW-02	EA SW-03
		Date Sampled:	6/10/2015	6/10/2015	6/10/2015
Analyte	**Screening Criteria**	**Unit**			
Enterococci	61	MPN/100 ml	1.0	19.1	103.1
E. coli	235	MPN/100 ml	1.0	16.9	261.3

Notes:
Screening Criteria = Maryland Department of Environment Water Quality Criteria Specific to Designated Uses; Frequent Full Body Contact Recreation (Freshwater); http://www.dsd.state.md.us/comar/comarhtml/26/26.08.02.03-3.htm

Gray Shade = exceeds screening criteria
MPN = Most Probable Number
ml = milliliters

Appendix C

Photograph Log

EA Engineering, Science, and Technology, Inc.

Photographic Record

Tyson Foods
9943 Old Ocean City Boulevard
Berlin, Maryland

View looking southeast at location SS-03, adjacent to the west of the lagoons.

View looking north at location SS-02/GW-04, adjacent to the northeast of the lagoons.

View looking southeast at location SS-06/GW-03, adjacent to the south of the lagoons.

Representative soil in the vicinity of the lagoons.

View looking southwest at location SS-07 in the vicinity of the former truck scales.

View looking east at location of SS-08 in the vicinity of the former aboveground storage tank.

EA Engineering, Science, and Technology, Inc.

Photographic Record

Tyson Foods
9943 Old Ocean City Boulevard
Berlin, Maryland

View looking south at location SS-10 near the former maintenance room.

View looking east at location SS-09 located in the former boiler room.

Representative soil in the vicinity of the processing plant.

View looking south at location SS-05 in the smaller southern lagoon.

Representative sludge-like material at SS-05.

Representative subsurface soil at SS-05.

EA Engineering, Science, and Technology, Inc.

Photographic Record

Tyson Foods
9943 Old Ocean City Boulevard
Berlin, Maryland

View looking south at location SS-01.

Representative sludge-like material at SS-01.

Representative subsurface soil at SS-01.

View looking north at location SS-04.

Representative sludge-like material at SS-04.

Representative subsurface soil at SS-04.

Appendix D

Soil Boring Logs

BORING/WELL LOG

HOLE NUMBER: SS-02

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: grass	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 8 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 16 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? Yes / IF SO COMPLETE CONSTRUCTION DIAGRAM: temporary well	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-02-0-1; 4-5 SS-02-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals, Pesticides, Herbicides
22. DISPOSITION OF HOLE / IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
SM		0-27 inches - sandy SILT, dark brown to orange, medium grained	0.0		SS-02-0-1 @ 0925			
	2		0.0					
SM		28-31 inches - sandy SILT, orange mottled with black, lenses of clay, moist	0.0					
	4		0.0			48	31	
SM		49-67 inches - sandy SILT, orange mottled with black, lenses of clay, wet	0.0		SS-02-4-5 @ 0930			
OL		68-78 inches - clayey SILT, black, organic, moist	0.0					
	6							
SM		79-93 inches - silty SAND, black, coarse, wet	0.0					
	8		0.0			48	42	
ML		97-118 inches - black SILT, trace medium grained SAND, saturated	0.0					
SP	10	119-155 inches - SAND, trace SILT, grey/white, coarse, wet	0.0					
	12		0.0			48	48	
ML		156-179 inches - SILT, trace coarse SAND, white/bluish grey, saturated	0.0					
	14		0.0					
			0.0					
	16		0.0			48	35	

PROJECT: Tyson Facility

HOLE NO.: SS-02

BORING/WELL LOG

HOLE NUMBER: SS-03

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: grass	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 12 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 16 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? No / IF SO COMPLETE CONSTRUCTION DIAGRAM	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-03-0-1; 4-5 SS-03-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals, VOCs
22. DISPOSITION OF HOLE: IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
SM		0-9 inches - sandy SILT, dark brown, moist	0.0		SS-03-0-1 @ 0850			
SM	2	10-30 inches - silty SAND, white/orange, fine to medium grained	0.0					
SM		28-31 inches - sandy SILT, orange mottled with black, lenses of clay, moist	0.0					
SM	4	32-42 sandy SILT, grey, well graded, moist	0.0			48	42	
SM		49-90 inches - sandy SILT, grey, well graded, moist	0.0		SS-03-4-5 @ 0855 Dup-01			
	6		0.0					
			0.0					
	8		0.0			48	42	
SM		97-124 inches -sandy SILT, grey, well graded, moist	0.0					
	10		0.0					
SP		125-144 inches - SAND, grey, trace silt, coarse, wet	0.0					
	12		0.0			48	48	
SM		145-192 inches - silty SAND, well graded, grey/white, saturated	0.0					
	14		0.0					
			0.0					
	16		0.0			48	48	

PROJECT: Tyson Facility

HOLE NO.: SS-03

BORING/WELL LOG

HOLE NUMBER: SS-06

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: grass	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 16 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 20 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? Yes / IF SO COMPLETE CONSTRUCTION DIAGRAM: temporary	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-06-0-1; 4-5 SS-06-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals
22. DISPOSITION OF HOLE / IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
SW		0-10 inches - SAND, well graded, orange, rock/gravel throughout	0.0					
ML		11-44 inches - sandy SILT, light orange, fine to medium grained			SS-06-0-1 @ 0950			
	2		0.0					
			0.0					
SM	4	45-84 inches - silty SAND, light orange, fine to medium grained,				48	48	
		moist	0.0		SS-06-4-5 @ 0955			
	6		0.0					
ML		85-114 inches - clayey SILT, trace SAND, light black/grey, saturated	0.0					
	8		0.0			48	48	
			0.0					
ML	10	115-130 inches - clayey SILT, light black, moist	0.0					
			0.0					
	12					48	34	
OL		145-160 inches - clayey SILT, black, organic, wet	0.0					
SP		161-163 inches - SAND, trace silt, white/grey, coarse, wet	0.0					
	14							
			0.0					
	16		0.0			48	19	
SM		193 - 222 inches - SAND with SILT, white/grey, well graded, saturated	0.0					
	18		0.0					
			0.0					
	20		0.0			48	30	

PROJECT: Tyson Facility

HOLE NO.: SS-06

BORING/WELL LOG

HOLE NUMBER: SS-07

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: asphalt	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 6 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 12 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? No / IF SO COMPLETE CONSTRUCTION DIAGRAM	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-07-0-1; 4-5 SS-07-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals, VOCs
22. DISPOSITION OF HOLE: IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
ML	2	0-10 inches - asphalt mixed with black silty GRAVEL/SAND, moist 11-75 inches - silty CLAY, light grey mottled orange, medium soft	0.0 0.0		SS-07-0-1 @ 1035			
	4		0.0 0.0			48	48	
	6		0.0 0.0		SS-07-4-5 @ 1040			
SM	8	76-85 inches - silty SAND, yellowish white, well graded, saturated	0.0 0.0			48	37	
ML	10	97-104 inches - clayey SILT, trace SAND, grey/white, saturated	0.0 0.0					
	12		0.0 0.0			48	8	

PROJECT: Tyson Facility

HOLE NO.: SS-07

BORING/WELL LOG

HOLE NUMBER: SS-08

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: asphalt	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 4 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 8 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? No / IF SO COMPLETE CONSTRUCTION DIAGRAM	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-08-0-1; 4-5 SS-08-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals, TPH-DRO
22. DISPOSITION OF HOLE: IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
SM	2	0-7 inches - ASPHALT 8-29 inches - SAND with SILT, orangish brown, coarse, wet, with 2 inches concrete at bottom	0.0 0.0		SS-08-0-1 @ 1105 Dup-02			
	4		0.0 0.0			48	29	
SM	6	49-66 inches - silty SAND, well graded, brown with pebbles, saturated, slight odor (processing plant)	0.0 0.0		SS-08-4-5 @ 1110			
	8		0.0 0.0			48	18	
		REFUSAL @ 8 ft						

PROJECT: Tyson Facility

HOLE NO.: SS-08

BORING/WELL LOG

HOLE NUMBER: SS-09

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: concrete	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 3.5 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 8 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? No / IF SO COMPLETE CONSTRUCTION DIAGRAM	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-09-0-1; 4-5 SS-09-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals, VOCs, TPH-DRO
22. DISPOSITION OF HOLE: IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
SP	2	0-6 inches - CONCRETE 7-36 inches - SAND, medium to coarse, light orange, wet, last 8 inches saturated	0.0 0.0		SS-09-0-1 @ 1215			
	4		0.0 0.0			48	36	
SP ML	6	49-64 inches - SAND medium to coarse, light orange, saturated 65-80 inches - clayey SILT, trace SAND, greyish black, saturated	0.0 0.0		SS-09-4-5 @ 1220			
SM	8	81-96 inches - silty SAND, medium grained, grey, wet	0.0 0.0			48	48	

PROJECT: Tyson Facility

HOLE NO.: SS-09

BORING/WELL LOG

HOLE NUMBER: SS-10

1. COMPANY NAME: EA Engineering	2. DRILL SUBCONTRACTOR: Green Services	SHEET 1 OF SHEETS 1
3. PROJECT: Tyson Facility	4. PROPERTY ADDRESS: 9943 Old Ocean City Boulevard	5 / 6. AREA AND MEASUREMENTS
7. NAME OF DRILLER: Don Marchese	8. MANUFACTURER'S DESIGNATION OF DRILL: Direct Push	
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" OD X 4' long steel core barrel sampler TYPE OF LINER USED, IF APPLICABLE: PVC	10. SURFACE ELEVATION AND CONDITIONS: asphalt	
11. DIRECT READING PARAMETERS: VOC- PID, ppm	12. DATE STARTED: 6/9/2015	13. DATE COMPLETED: 6/9/2015
14. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 8 ft	
16. DEPTH DRILLED INTO ROCK: NA	17. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
18. TOTAL DEPTH OF HOLE: 12 ft	19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	
20. WELL INSTALLED? No / IF SO COMPLETE CONSTRUCTION DIAGRAM	SAMPLE TYPE: Grab	
21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS: 0-1 SS-10-0-1; 4-5 SS-10-4-5	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: 1 ft	LAB ANALYSIS: SVOCs, PPL Metals, VOCs, TPH-DRO
22. DISPOSITION OF HOLE: IF NOT A WELL, BACKFILLED WITH: Soil cuttings and bentonite	23. GEOLOGIST: Caron Mierczak	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)		ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (IN.) (g)	REMARKS
SP	2	0-2 inches - ASPHALT 3-27 inches - SAND, fine to medium grained, black odor (naphthalene)	0.0 3.0		SS-10-0-1 @ 1140			
SM	4	28-36 inches - SILT, trace SAND, grey, fine to medium grained	0.0 0.0			48	36	
SM	6	49-69 inches - SILT, trace SAND, grey, fine to medium grained	0.0 0.0		SS-10-4-5 @ 1145 MS/MSD			
SM		70-87 inches - silty SAND, fine to medium grained, wet, grey						
SC	8	88-96 inches - sandy SILT with CLAY, stiff, grey	0.0 0.0			48	48	
SM	10	97-144 inches - silty SAND, grey, saturated	0.0 0.0					
	12		0.0 0.0			48	48	

PROJECT: Tyson Facility

HOLE NO.: SS-10

Appendix E

Groundwater Purge Logs

EA Engineering, Science, and Technology, Inc.

WELL PURGING AND SAMPLING RECORD

WELL ID GW-03 SAMPLE NO. GW-03

WELL/SITE DESCRIPTION southern berm of lagoons

DATE 6/10/2015 TIME 1230 AIR TEMP. low 90s

WELL DEPTH 19.32 ft CASING HEIGHT 0.1 ft

WATER DEPTH 14.73 ft WELL DIAMETER 1.0 in

WATER COL. HEIGHT 4.59 ft SANDPACK DIAM. NA in

EQUIVALENT VOLUME OF STANDING WATER 0.71 L

PUMP RATE 0.25 LPM

PUMP TIME 32 minutes min

WELL WENT DRY? ( ) Yes (X) No PUMP TIME 32 min

VOL. REMOVED 7.0 L RECOVERY TIME min

PURGE AGAIN? ( )Yes (X) No TOTAL VOL. REMOVED 7.0 L

Date	Time	Volume Removed Unit: L	pH -	Cond. µS/cm	Temp. °C	ORP mV	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate LPM
6/10/15	1247	0.0	6.44	359	16.87	48.9	58.8	2.31	--	0.25
6/10/15	1251	1.0	4.58	280	13.83	102.7	476.8	4.02	--	0.25
6/10/15	1255	2.0	4.52	279	13.83	102.2	608.7	3.57	--	0.25
6/10/15	1259	3.0	4.76	294	14.91	83.0	1036.9	4.08	--	0.25
6/10/15	1303	4.0	5.04	289	14.46	68.6	543.1	5.29	--	0.25
6/10/15	1307	5.0	5.04	297	15.54	65.5	281.2	5.84	--	0.25
6/10/15	1311	6.0	5.06	298	15.82	59.8	252.5	6.30	--	0.25
6/10/15	1315	7.0	5.08	299	15.90	57.5	223.0	6.50	--	0.25

COMMENTS No depth to water readings because IFP could not fit in well with tubing. MS/MSD collected. Sampled at 1315.

SIGNATURE

EA Engineering, Science, and Technology, Inc.

WELL PURGING AND SAMPLING RECORD

WELL ID GW-04 SAMPLE NO. GW-04

WELL/SITE DESCRIPTION eastern berm of lagoons

DATE 6/10/2015 TIME 1030 AIR TEMP. low 90s

WELL DEPTH 14.6 ft CASING HEIGHT 0.1 ft

WATER DEPTH 9.23 ft WELL DIAMETER 1.0 in

WATER COL. HEIGHT 5.37 ft SANDPACK DIAM. NA in

EQUIVALENT VOLUME OF STANDING WATER 0.83 L

PUMP RATE 0.10 LPM

PUMP TIME 32 minutes min

WELL WENT DRY? ( ) Yes (X) No PUMP TIME 32 min

VOL. REMOVED 2.4 L RECOVERY TIME min

PURGE AGAIN? ( )Yes (X) No TOTAL VOL. REMOVED 2.4 L

Date	Time	Volume Removed Unit: L	pH -	Cond. µS/cm	Temp. °C	ORP mV	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate LPM
6/10/15	1041	0.0	5.91	554	18.63	-13.3	205.0	3.67	--	0.10
6/10/15	1045	0.4	5.82	536	20.21	-13.0	376.0	6.07	--	0.10
6/10/15	1049	0.8	6.22	518	20.78	-26.7	1082.8	7.20	--	0.10
6/10/15	1053	1.2	6.36	512	21.05	-28.3	1084.6	7.94	--	0.10
6/10/15	1057	1.6	6.39	513	21.12	-29.6	1085.1	8.20	--	0.10
6/10/15	1101	2.0	6.40	515	21.19	-30.8	885.6	8.33	--	0.10
6/10/15	1105	2.4	6.40	516	21.23	-32.0	861.5	8.43	--	0.10

COMMENTS No depth to water readings because IFP could not fit in well with tubing. DUP-GW-01 collected. Sample collected at 1105.

SIGNATURE

Appendix F

Analytical Results

Empirical Laboratories, LLC

621 Mainstream Drive, Suite 270
Nashville, TN 37228
615.345.1115 Phone
866.417.0548 Fax

29 June 2015

Jim Hulbert
EA Engineering, Science, and Technology, Inc.
225 Schilling Circle, Suite 400
Hunt Valley, MD 21031

RE: Tyson Chicken

Enclosed are the results of analyses for samples received by the laboratory on 06/10/2015 09:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sonya Gordon
Project Manager

EA Engineering, Science, and Technology, Inc.	Project: Tyson Chicken	
225 Schilling Circle, Suite 400	Project Number: EAE_Tyson	**Reported:**
Hunt Valley MD, 21031	Project Manager: Jim Hulbert	06/29/2015 10:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-02-0-1	1506109-01	Solid	06/09/2015 09:25	06/10/2015 09:00
SS-02-4-5	1506109-02	Solid	06/09/2015 09:30	06/10/2015 09:00
SS-03-0-1	1506109-03	Solid	06/09/2015 08:50	06/10/2015 09:00
SS-03-4-5	1506109-04	Solid	06/09/2015 08:55	06/10/2015 09:00
SS-06-0-1	1506109-05	Solid	06/09/2015 09:50	06/10/2015 09:00
SS-06-4-5	1506109-06	Solid	06/09/2015 09:55	06/10/2015 09:00
SS-07-0-1	1506109-07	Solid	06/09/2015 10:35	06/10/2015 09:00
SS-07-4-5	1506109-08	Solid	06/09/2015 10:40	06/10/2015 09:00
SS-08-0-1	1506109-09	Solid	06/09/2015 11:05	06/10/2015 09:00
SS-08-4-5	1506109-10	Solid	06/09/2015 11:10	06/10/2015 09:00
SS-10-0-1	1506109-11	Solid	06/09/2015 11:40	06/10/2015 09:00
SS-10-4-5	1506109-12	Solid	06/09/2015 11:45	06/10/2015 09:00
SS-09-0-1	1506109-13	Solid	06/09/2015 12:15	06/10/2015 09:00
SS-09-4-5	1506109-14	Solid	06/09/2015 12:20	06/10/2015 09:00
DUP-01	1506109-15	Solid	06/09/2015 00:00	06/10/2015 09:00
DUP-02	1506109-16	Solid	06/09/2015 00:00	06/10/2015 09:00

The samples were received and processed using normal regulatory and laboratory protocols. Unless noted in the Final Report, there were no significant data anomalies or failures noted during data assessment and reporting. The results within this report relate only to the samples received and reported for this project and this report shall not be reproduced except in full, without the approval of Empirical Laboratories, LLC. The test results meet all requirements of NELAC unless otherwise noted. Data uncertainty is linked to the method and regulatory mandated quality control data associated with the sample. Prior to accepting a Project, Empirical Laboratories, LLC verifies certification requirements and where applicable ensures that the requirements are in place prior to sample analysis. Many states do not carry matrix or program specific certifications. A listing of certifications held by Empirical Laboratories, LLC is included at the end of this report.

Samples were subcontracted to Accutest Laboratories in Orlando FL for Herbicide analysis by method SW 846 8151A.

SW6010C
The QC for the Matrix Spike and Matrix Spike Duplicate exceeded criteria in batch 5F16726 for Antimony. Associated samples are flagged with an N qualifier.

SW8081B
To reduce matrix interference, the sample extracts have undergone copper clean-up, method 3660, which is specific to sulfur contamination.

Endrin shows a potential positive bias on a reported concentration exceeding the higher control limit on the high side for CCVs. Associated data are flagged with an X qualifier.

Alpha-BHC, beta-BHC, and gamma-Chlordane were detected in blank 5F16704-BLK1. Associated samples are qualified with a B flag. See included QC for details.

Sample matrix interfered with the quantitation of beta-BHC, gamma-Chlordane, and Heptachlor epoxide in sample 1506109-01. Sample matrix interfered with the quantitation of beta-BHC and gamma-Chlordane in sample 1506109-02. Results are reported from the column with the lower concentration and qualified with an M.

Recovery for surrogate TCMX on the secondary column was outside the acceptable range in sample 1506109-02. The surrogate is qualified with an "*" flag. See included QC for details.

SW8270D
Surrogate 2,4,6-Tribromophenol shows a potential positive bias on a reported concentration exceeding the higher control limit on the high side for CCVs. Associated data are flagged with an X qualifier.

Recovery for surrogate 2,4,6-Tribromophenol was outside the acceptable range in sample 1506109-10. The surrogate is qualified with an "*" flag. See included QC for details.

SW8260B
The QC for the Matrix Spike and Matrix Spike Duplicate exceeded criteria in batch 5F15915 for multiple compounds. Associated compounds are flagged with an N qualifier. Due to the number of compounds exceeding criteria, the Sample, Matrix Spike and Matrix Spike Duplicate were reanalyzed in batch 5F17003 with multiple comounds still exceeding criteria.

The QC exceeded criteria in batch 5F17003 for Acetone. Associated samples are qualified with a Q qualifier.

Bromomethane and 1,1,2,2-Tetrachloroethane show a potential positive bias on a reported concentration exceeding the higher control limit on the high side for CCVs. Associated data are flagged with an X qualifier.

SS-02-0-1

1506109-01 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**85**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.16	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**0.832**	0.696	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.232	1.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.232	1.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**6.41**	0.464	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**2.21**	0.929	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**6.08**	0.348	1.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**2.13**	0.696	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.696	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.232	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.696	1.86	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**5.69**	1.16	4.64	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0143	0.0363	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Organochlorine Pesticides and PCBs by GC										**C8**
4,4'-DDE [2C]	**0.855**	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	
4,4'-DDD	ND	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
4,4'-DDT	**0.845**	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	
Aldrin [2C]	**0.913**	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	
alpha-BHC [2C]	**0.377**	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	BJ
alpha-Chlordane	ND	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
beta-BHC	**0.749**	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	BJM
delta-BHC [2C]	ND	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Dieldrin [2C]	**0.302**	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	J
Endosulfan I	ND	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endosulfan II [2C]	ND	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endosulfan sulfate	**4.33**	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	
Endrin	ND	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	UX
Endrin aldehyde [2C]	ND	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endrin ketone [2C]	ND	0.194	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
gamma-BHC (Lindane) [2C]	**0.597**	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	J
gamma-Chlordane [2C]	**0.288**	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	BJM
Heptachlor	ND	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Heptachlor epoxide	**0.614**	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	JM
Methoxychlor	ND	0.125	0.764	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U

SS-02-0-1

1506109-01 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides and PCBs by GC										**C8**
Chlordane (n.o.s.)	ND	0.650	3.80	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Toxaphene	ND	12.5	37.6	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Surrogate: Tetrachloro-m-xylene		*86.9 %*	*70-125*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Surrogate: Tetrachloro-m-xylene [2C]		*83.9 %*	*70-125*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Surrogate: Decachlorobiphenyl		*91.3 %*	*55-130*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Surrogate: Decachlorobiphenyl [2C]		*103 %*	*55-130*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acenaphthylene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acetophenone	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Anthracene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Atrazine	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzaldehyde	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)anthracene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)pyrene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(b)fluoranthene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(g,h,i)perylene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(k)fluoranthene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
1,1-Biphenyl	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Bromophenyl-phenylether	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Butylbenzylphthalate	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Caprolactam	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Carbazole	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloro-3-methylphenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloroaniline	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chloronaphthalene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chlorophenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Chrysene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenz(a,h)anthracene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenzofuran	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-butylphthalate	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dichlorophenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Diethylphthalate	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dimethylphenol	ND	371	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U

SS-02-0-1

1506109-01 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Dimethyl phthalate	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	929	3710	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrophenol	ND	929	3710	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrotoluene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,6-Dinitrotoluene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-octylphthalate	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluoranthene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluorene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobenzene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobutadiene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorocyclopentadiene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachloroethane	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Isophorone	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylnaphthalene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylphenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Methylphenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Naphthalene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitroaniline	ND	371	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3-Nitroaniline	ND	371	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitroaniline	ND	371	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Nitrobenzene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitrophenol	ND	371	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitrophenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitrosodiphenylamine	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pentachlorophenol	ND	371	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenanthrene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pyrene	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,6-Trichlorophenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,5-Trichlorophenol	ND	92.9	371	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*71.2 %*	*45-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*64.3 %*	*35-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*63.0 %*	*35-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Phenol-d6		*65.4 %*	*40-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*67.5 %*	*30-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*87.7 %*	*35-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	*X*

EA Engineering, Science, and Technology, Inc.	Project: Tyson Chicken	
225 Schilling Circle, Suite 400	Project Number: EAE_Tyson	**Reported:**
Hunt Valley MD, 21031	Project Manager: Jim Hulbert	06/29/2015 10:43

SS-02-0-1

1506109-01 (Solid)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

SS-02-4-5

1506109-02 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**83**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.15	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.19**	0.691	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	**0.256**	0.230	1.15	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Cadmium	ND	0.230	1.15	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**10.1**	0.460	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**2.44**	0.921	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**8.84**	0.345	1.15	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.24**	0.691	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.691	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.230	2.30	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.691	1.84	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**7.53**	1.15	4.60	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	**0.0344**	0.0152	0.0386	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	J
Organochlorine Pesticides and PCBs by GC										**C8**
4,4'-DDE [2C]	**0.392**	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	J
4,4'-DDD	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
4,4'-DDT	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Aldrin [2C]	**0.455**	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	J
alpha-BHC [2C]	**0.298**	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	BJ
alpha-Chlordane	ND	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
beta-BHC [2C]	**0.161**	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	JM
delta-BHC [2C]	ND	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Dieldrin	**0.335**	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	J
Endosulfan I	ND	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endosulfan II	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endosulfan sulfate [2C]	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endrin	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	UX
Endrin aldehyde	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Endrin ketone	ND	0.196	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
gamma-BHC (Lindane) [2C]	**0.355**	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	J
gamma-Chlordane [2C]	**0.359**	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	BJM
Heptachlor	ND	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Heptachlor epoxide	ND	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Methoxychlor [2C]	ND	0.127	0.774	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Chlordane (n.o.s.)	ND	0.658	3.84	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U

SS-02-4-5

1506109-02 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides and PCBs by GC										**C8**
Toxaphene	ND	12.7	38.1	ug/Kg dry	1	5F16704	06/16/15	06/20/15	SW8081B	U
Surrogate: Tetrachloro-m-xylene		*70.9 %*	*70-125*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Surrogate: Tetrachloro-m-xylene [2C]		*68.7 %*	*70-125*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	*
Surrogate: Decachlorobiphenyl		*72.0 %*	*55-130*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Surrogate: Decachlorobiphenyl [2C]		*85.8 %*	*55-130*			*5F16704*	*06/16/15*	*06/20/15*	*SW8081B*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acenaphthylene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acetophenone	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Anthracene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Atrazine	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzaldehyde	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)anthracene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)pyrene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(b)fluoranthene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(g,h,i)perylene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(k)fluoranthene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
1,1-Biphenyl	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Bromophenyl-phenylether	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Butylbenzylphthalate	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Caprolactam	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Carbazole	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloro-3-methylphenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloroaniline	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chloronaphthalene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chlorophenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Chrysene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenz(a,h)anthracene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenzofuran	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-butylphthalate	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dichlorophenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Diethylphthalate	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dimethylphenol	ND	390	1560	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dimethyl phthalate	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U

SS-02-4-5

1506109-02 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4,6-Dinitro-2-methylphenol	ND	977	3900	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrophenol	ND	977	3900	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrotoluene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,6-Dinitrotoluene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-octylphthalate	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluoranthene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluorene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobenzene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobutadiene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorocyclopentadiene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachloroethane	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Isophorone	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylnaphthalene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylphenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Methylphenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Naphthalene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitroaniline	ND	390	1560	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3-Nitroaniline	ND	390	1560	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitroaniline	ND	390	1560	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Nitrobenzene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitrophenol	ND	390	1560	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitrophenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitrosodiphenylamine	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pentachlorophenol	ND	390	1560	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenanthrene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pyrene	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,6-Trichlorophenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,5-Trichlorophenol	ND	97.7	390	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*73.2 %*	*45-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*66.6 %*	*35-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*65.3 %*	*35-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Phenol-d6		*67.5 %*	*40-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*67.9 %*	*30-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*90.2 %*	*35-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	*X*

SS-03-0-1

1506109-03 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**87**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.08	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**0.755**	0.647	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.216	1.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.216	1.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**7.31**	0.432	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**1.04**	0.863	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**10.8**	0.324	1.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**1.79**	0.647	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.647	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.216	2.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.647	1.73	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**5.93**	1.08	4.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0161	0.0408	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Volatile Organic Compounds by GC/MS										
Acetone	**23.9**	4.13	16.5	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	
Benzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-03-0-1

1506109-03 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.06	8.26	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.03	4.13	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*91.9 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*106 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*90.5 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-03-0-1

1506109-03 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acenaphthylene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acetophenone	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Anthracene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Atrazine	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzaldehyde	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)anthracene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)pyrene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(b)fluoranthene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(g,h,i)perylene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(k)fluoranthene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
1,1-Biphenyl	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Bromophenyl-phenylether	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Butylbenzylphthalate	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Caprolactam	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Carbazole	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloro-3-methylphenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloroaniline	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chloronaphthalene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chlorophenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Chrysene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenz(a,h)anthracene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenzofuran	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-butylphthalate	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dichlorophenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Diethylphthalate	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dimethylphenol	ND	373	1490	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dimethyl phthalate	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	934	3730	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrophenol	ND	934	3730	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrotoluene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,6-Dinitrotoluene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-octylphthalate	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U

SS-03-0-1

1506109-03 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoranthene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluorene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobenzene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobutadiene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorocyclopentadiene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachloroethane	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Isophorone	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylnaphthalene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylphenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Methylphenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Naphthalene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitroaniline	ND	373	1490	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3-Nitroaniline	ND	373	1490	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitroaniline	ND	373	1490	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Nitrobenzene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitrophenol	ND	373	1490	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitrophenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitrosodiphenylamine	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pentachlorophenol	ND	373	1490	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenanthrene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pyrene	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,6-Trichlorophenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,5-Trichlorophenol	ND	93.4	373	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*70.7 %*	*45-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*63.1 %*	*35-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*64.6 %*	*35-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Phenol-d6		*64.9 %*	*40-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*69.5 %*	*30-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*89.3 %*	*35-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	*X*

SS-03-4-5

1506109-04 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**86**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.07	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**0.986**	0.643	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	**0.227**	0.214	1.07	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Cadmium	ND	0.214	1.07	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**11.2**	0.429	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**2.10**	0.857	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**6.74**	0.321	1.07	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.96**	0.643	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.643	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.214	2.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.643	1.71	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**9.95**	1.07	4.29	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0133	0.0337	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Volatile Organic Compounds by GC/MS										
Acetone	**8.44**	4.50	18.0	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Benzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-03-4-5

1506109-04 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.25	9.00	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.12	4.50	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*89.4 %*	*85-120*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*105 %*	*80-125*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*75-140*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*89.8 %*	*85-115*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-03-4-5

1506109-04 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acenaphthylene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acetophenone	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Anthracene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Atrazine	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzaldehyde	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)anthracene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)pyrene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(b)fluoranthene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(g,h,i)perylene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(k)fluoranthene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
1,1-Biphenyl	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Bromophenyl-phenylether	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Butylbenzylphthalate	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Caprolactam	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Carbazole	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloro-3-methylphenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloroaniline	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chloronaphthalene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chlorophenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Chrysene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenz(a,h)anthracene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenzofuran	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-butylphthalate	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dichlorophenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Diethylphthalate	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dimethylphenol	ND	370	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dimethyl phthalate	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	925	3700	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrophenol	ND	925	3700	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrotoluene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,6-Dinitrotoluene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-octylphthalate	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U

SS-03-4-5

1506109-04 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoranthene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluorene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobenzene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobutadiene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorocyclopentadiene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachloroethane	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Isophorone	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylnaphthalene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylphenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Methylphenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Naphthalene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitroaniline	ND	370	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3-Nitroaniline	ND	370	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitroaniline	ND	370	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Nitrobenzene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitrophenol	ND	370	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitrophenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitrosodiphenylamine	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pentachlorophenol	ND	370	1480	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenanthrene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pyrene	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,6-Trichlorophenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,5-Trichlorophenol	ND	92.5	370	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*70.7 %*	*45-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*67.0 %*	*35-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*66.3 %*	*35-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Phenol-d6		*68.9 %*	*40-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*67.5 %*	*30-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*89.8 %*	*35-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	*X*

SS-06-0-1

1506109-05 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**90**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.04	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**0.967**	0.625	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	**0.238**	0.208	1.04	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Cadmium	ND	0.208	1.04	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**9.86**	0.417	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**3.14**	0.834	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**6.66**	0.313	1.04	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.03**	0.625	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.625	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.208	2.08	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.625	1.67	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**5.58**	1.04	4.17	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0150	0.0381	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acenaphthylene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Acetophenone	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Anthracene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Atrazine	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzaldehyde	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)anthracene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(a)pyrene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(b)fluoranthene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(g,h,i)perylene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Benzo(k)fluoranthene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
1,1-Biphenyl	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Bromophenyl-phenylether	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Butylbenzylphthalate	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Caprolactam	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Carbazole	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloro-3-methylphenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chloroaniline	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U

SS-06-0-1

1506109-05 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Chlorophenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Chrysene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenz(a,h)anthracene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dibenzofuran	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-butylphthalate	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dichlorophenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Diethylphthalate	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dimethylphenol	ND	351	1400	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Dimethyl phthalate	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	878	3510	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrophenol	ND	878	3510	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4-Dinitrotoluene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,6-Dinitrotoluene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Di-n-octylphthalate	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluoranthene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Fluorene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobenzene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorobutadiene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachlorocyclopentadiene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Hexachloroethane	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Isophorone	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylnaphthalene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Methylphenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Methylphenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Naphthalene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitroaniline	ND	351	1400	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
3-Nitroaniline	ND	351	1400	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitroaniline	ND	351	1400	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Nitrobenzene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
4-Nitrophenol	ND	351	1400	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2-Nitrophenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitrosodiphenylamine	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pentachlorophenol	ND	351	1400	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U

SS-06-0-1

1506109-05 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Phenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Pyrene	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,6-Trichlorophenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
2,4,5-Trichlorophenol	ND	87.8	351	ug/Kg dry	1	5F12003	06/15/15	06/16/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*76.3 %*	*45-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*67.2 %*	*35-105*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*67.6 %*	*35-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Phenol-d6		*69.6 %*	*40-100*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*73.2 %*	*30-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*93.8 %*	*35-125*			*5F12003*	*06/15/15*	*06/16/15*	*SW8270D*	*X*

SS-06-4-5

1506109-06 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**79**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.26	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.98**	0.755	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.252	1.26	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.252	1.26	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**12.8**	0.503	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**2.36**	1.01	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**5.23**	0.378	1.26	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.20**	0.755	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.755	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.252	2.52	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.755	2.01	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**3.80**	1.26	5.03	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Mercury by CVAA										
Mercury	ND	0.0155	0.0393	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-06-4-5

1506109-06 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	410	1640	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	1030	4100	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	1030	4100	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	410	1640	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	410	1640	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	410	1640	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	410	1640	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	410	1640	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-06-4-5

1506109-06 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	103	410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*79.9 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*73.3 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*73.4 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*76.3 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*75.4 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*98.7 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-07-0-1

1506109-07 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**82**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.13	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**2.18**	0.681	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.227	1.13	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.227	1.13	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**5.74**	0.454	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**4.11**	0.907	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**2.40**	0.340	1.13	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**2.03**	0.681	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.681	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.227	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.681	1.81	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**10.1**	1.13	4.54	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0139	0.0353	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Volatile Organic Compounds by GC/MS										
Acetone	**10.5**	4.73	18.9	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Benzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	**1.27**	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Carbon tetrachloride	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-07-0-1

1506109-07 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.37	9.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.18	4.73	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*91.7 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*106 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*87.7 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-07-0-1

1506109-07 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	386	1540	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	965	3860	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	965	3860	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-07-0-1

1506109-07 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoranthene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	386	1540	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	386	1540	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	386	1540	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	386	1540	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	386	1540	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	96.5	386	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*77.1 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*71.3 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*71.3 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*73.7 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*76.0 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*97.1 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-07-4-5

1506109-08 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**83**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.17	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**0.917**	0.704	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	**0.310**	0.235	1.17	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Cadmium	ND	0.235	1.17	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**17.5**	0.469	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**3.17**	0.938	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**6.64**	0.352	1.17	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.05**	0.704	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.704	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.235	2.35	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.704	1.88	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**7.28**	1.17	4.69	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0143	0.0362	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Volatile Organic Compounds by GC/MS										
Acetone	ND	4.34	17.4	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Benzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-07-4-5

1506109-08 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.17	8.68	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.08	4.34	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*92.6 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*108 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*105 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*87.0 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-07-4-5

1506109-08 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	388	1550	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	969	3880	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	969	3880	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-07-4-5

1506109-08 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoranthene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	388	1550	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	388	1550	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	388	1550	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	388	1550	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	388	1550	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	96.9	388	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*70.4 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*66.3 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*65.4 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*69.2 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*66.0 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*85.4 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-08-0-1

1506109-09 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**80**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.14	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.02**	0.685	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.228	1.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.228	1.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**4.20**	0.457	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**2.11**	0.914	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**2.81**	0.343	1.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**2.25**	0.685	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.685	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.228	2.28	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.685	1.83	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**11.2**	1.14	4.57	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0157	0.0398	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**14.4**	8.08	16.0	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	J
Surrogate: o-Terphenyl		*84.4 %*	*35-140*			*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-08-0-1

1506109-09 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloro-3-methylphenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	402	1610	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	1010	4020	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	1010	4020	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	402	1610	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	402	1610	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	402	1610	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-08-0-1

1506109-09 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Nitrophenol	ND	402	1610	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	402	1610	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	101	402	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*71.4 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*63.2 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*64.8 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*65.8 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*69.8 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*86.8 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-08-4-5

1506109-10 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**84**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.16	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**0.838**	0.696	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.232	1.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.232	1.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**4.55**	0.464	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**4.10**	0.928	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**3.75**	0.348	1.16	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**2.04**	0.696	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.696	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.232	2.32	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.696	1.86	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**444**	1.16	4.64	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0150	0.0381	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**34.2**	7.60	15.1	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	
Surrogate: o-Terphenyl		*87.2 %*		*35-140*		*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-08-4-5

1506109-10 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloro-3-methylphenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	383	1530	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	957	3830	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	957	3830	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	383	1530	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	383	1530	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	383	1530	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-08-4-5

1506109-10 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Nitrophenol	ND	383	1530	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	383	1530	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	95.7	383	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*78.9 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*43.5 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*70.6 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*68.8 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*78.5 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*30.9 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X

SS-10-0-1

1506109-11 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**93**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.06	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.80**	0.637	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	**0.237**	0.212	1.06	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Cadmium	ND	0.212	1.06	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**6.28**	0.425	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**3.15**	0.850	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**6.60**	0.319	1.06	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.51**	0.637	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.637	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.212	2.12	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.637	1.70	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**11.1**	1.06	4.25	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	**0.0239**	0.0131	0.0332	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	J
Volatile Organic Compounds by GC/MS										
Acetone	**22.5**	4.24	17.0	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	
Benzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	**2.66**	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Carbon disulfide	**3.98**	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Carbon tetrachloride	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-10-0-1

1506109-11 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	**2.42**	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
4-Methyl-2-pentanone	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.12	8.49	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.06	4.24	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*89.1 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*110 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*86.1 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-10-0-1

1506109-11 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**44.9**	7.03	14.0	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	
Surrogate: o-Terphenyl		*95.9 %*	*35-140*			*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	**92.0**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Atrazine	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	**248**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Benzo(a)pyrene	**244**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Benzo(b)fluoranthene	**206**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Benzo(g,h,i)perylene	**165**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Benzo(k)fluoranthene	**203**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
1,1-Biphenyl	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	**238**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Dibenz(a,h)anthracene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	348	1390	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	872	3480	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-10-0-1

1506109-11 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2,4-Dinitrophenol	ND	872	3480	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	**452**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	
Fluorene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	**187**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Isophorone	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	348	1390	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	348	1390	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	348	1390	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	348	1390	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	348	1390	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	**339**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	J
Phenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	**396**	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	
2,4,6-Trichlorophenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	87.2	348	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*60.4 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*53.4 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*53.2 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*55.6 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*60.6 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*74.6 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-10-4-5

1506109-12 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**83**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.14	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**2.05**	0.682	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	**0.340**	0.227	1.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Cadmium	ND	0.227	1.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**9.69**	0.455	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**3.21**	0.910	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**4.52**	0.341	1.14	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**4.56**	0.682	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.682	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.227	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.682	1.82	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**8.31**	1.14	4.55	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0147	0.0373	mg/Kg dry	1	5F15935	06/15/15	06/17/15	SW7471B	U
Volatile Organic Compounds by GC/MS										
Acetone	**25.1**	4.45	17.8	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	N
Benzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Bromomethane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
2-Butanone	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Carbon disulfide	**1.30**	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Carbon tetrachloride	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Chloroethane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,2-Dibromo-3-chloropropane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,2-Dibromoethane (EDB)	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,2-Dichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,3-Dichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,4-Dichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Dichlorodifluoromethane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-10-4-5

1506109-12 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Ethylbenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
2-Hexanone	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Isopropylbenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Methylene chloride	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
4-Methyl-2-pentanone	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Methyl t-Butyl Ether	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,1,2,2-Tetrachloroethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Tetrachloroethene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Toluene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,2,4-Trichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,1,2-Trichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
1,1,1-Trichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Trichlorofluoromethane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.23	8.90	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
o-Xylene	ND	1.11	4.45	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	NU
Surrogate: Bromofluorobenzene		*91.9 %*	*85-120*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*103 %*	*80-125*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*75-140*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*86.9 %*	*85-115*			*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-10-4-5

1506109-12 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**13.8**	7.79	15.5	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	J
Surrogate: o-Terphenyl		*78.1 %*	*35-140*			*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	395	1580	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	988	3950	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-10-4-5

1506109-12 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2,4-Dinitrophenol	ND	988	3950	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	395	1580	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	395	1580	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	395	1580	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	395	1580	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	395	1580	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	98.8	395	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*69.1 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*63.2 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*62.8 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*64.8 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*68.1 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*84.2 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-10-4-5

1506109-12RE1 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acetone	**25.1**	4.45	17.8	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NQ
Benzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Bromoform	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Bromomethane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	UX
2-Butanone	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Carbon disulfide	**1.30**	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	J
Carbon tetrachloride	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
1,2-Dibromo-3-chloropropane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
1,2-Dibromoethane (EDB)	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
1,2-Dichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,2-Dichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
1,1-Dichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
cis-1,3-Dichloropropene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
trans-1,3-Dichloropropene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Ethylbenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Isopropylbenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Methylene chloride	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
4-Methyl-2-pentanone	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Methyl t-Butyl Ether	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
Styrene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NUX
Tetrachloroethene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU

SS-10-4-5

1506109-12RE1 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Toluene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
1,1,2-Trichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	NU
1,1,1-Trichloroethane	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.23	8.90	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.11	4.45	ug/Kg dry	1	5F17003	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*91.9 %*	*85-120*			*5F17003*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*103 %*	*80-125*			*5F17003*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*75-140*			*5F17003*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*86.9 %*	*85-115*			*5F17003*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-09-0-1

1506109-13 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**92**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.05	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	ND	0.627	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Beryllium	ND	0.209	1.05	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.209	1.05	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**3.62**	0.418	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**7.96**	0.836	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Lead	**3.99**	0.314	1.05	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**39.3**	0.627	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.627	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.209	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.627	1.67	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**44.0**	1.05	4.18	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0141	0.0359	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Volatile Organic Compounds by GC/MS										
Acetone	**50.8**	4.47	17.9	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	
Benzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	**9.72**	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	
Carbon disulfide	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

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1506109-13 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.23	8.94	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.12	4.47	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*88.4 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*111 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*89.9 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

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1506109-13 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**72.7**	7.13	14.2	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	
Surrogate: o-Terphenyl		*83.0 %*	*35-140*			*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	352	1410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	881	3520	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

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1506109-13 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2,4-Dinitrophenol	ND	881	3520	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	352	1410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	352	1410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	352	1410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	352	1410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	352	1410	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	88.1	352	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*74.8 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*67.8 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*69.1 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*71.0 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*71.0 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*94.5 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

SS-09-4-5

1506109-14 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**87**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.11	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.66**	0.666	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.222	1.11	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.222	1.11	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**5.08**	0.444	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**1.35**	0.888	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**10.1**	0.333	1.11	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**1.77**	0.666	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.666	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.222	2.22	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.666	1.78	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**7.13**	1.11	4.44	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	**0.0201**	0.0150	0.0381	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	J
Volatile Organic Compounds by GC/MS										
Acetone	**14.4**	4.10	16.4	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Benzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	**2.43**	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Carbon tetrachloride	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

SS-09-4-5

1506109-14 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.05	8.20	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.02	4.10	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*89.7 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*108 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*89.3 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

SS-09-4-5

1506109-14 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**24.0**	7.63	15.1	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	
Surrogate: o-Terphenyl		*81.3 %*	*35-140*			*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	375	1500	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	938	3750	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

SS-09-4-5

1506109-14 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2,4-Dinitrophenol	ND	938	3750	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	375	1500	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	375	1500	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	375	1500	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	375	1500	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	375	1500	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	93.8	375	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*74.3 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*68.4 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*67.9 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*69.5 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*70.8 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*91.5 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

DUP-01

1506109-15 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**87**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.13	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.01**	0.680	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.227	1.13	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.227	1.13	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**9.69**	0.453	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**1.94**	0.906	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**5.95**	0.340	1.13	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**3.68**	0.680	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Selenium	ND	0.680	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.227	2.27	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.680	1.81	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**9.63**	1.13	4.53	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	**0.0176**	0.0145	0.0369	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	J
Volatile Organic Compounds by GC/MS										
Acetone	**7.44**	4.41	17.6	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Benzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U

DUP-01

1506109-15 (Solid)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,2-Dichloroethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylene chloride	**2.30**	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	J
Methyl Acetate	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
4-Methyl-2-pentanone	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Styrene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Toluene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	2.21	8.82	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	1.10	4.41	ug/Kg dry	1	5F15915	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*91.9 %*		*85-120*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*108 %*		*80-125*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*		*75-140*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*88.5 %*		*85-115*		*5F15915*	*06/15/15*	*06/15/15*	*SW8260B*	

DUP-01

1506109-15 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloro-3-methylphenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	379	1510	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	949	3790	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	949	3790	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

DUP-01

1506109-15 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluoranthene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	379	1510	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	379	1510	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	379	1510	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitrophenol	ND	379	1510	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	379	1510	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	94.9	379	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*62.5 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*59.5 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*58.6 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*61.6 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*57.5 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*79.4 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

DUP-02

1506109-16 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**89**	1.0	1.0	%	1	5F15928	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.05	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	NU
Arsenic	**1.01**	0.627	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Beryllium	ND	0.209	1.05	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Cadmium	ND	0.209	1.05	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Chromium	**3.89**	0.418	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Copper	**1.67**	0.836	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Lead	**2.22**	0.314	1.05	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Nickel	**2.03**	0.627	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	J
Selenium	ND	0.627	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Silver	ND	0.209	2.09	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Thallium	ND	0.627	1.67	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	U
Zinc	**8.07**	1.05	4.18	mg/Kg dry	1	5F16726	06/16/15	06/25/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0152	0.0385	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Diesel Range Organics by GC										
Diesel Range Organics (C10-C28)	**16.0**	7.40	14.7	mg/Kg dry	1	5F16703	06/16/15	06/22/15	SW8015C DRO	
Surrogate: o-Terphenyl		*87.8 %*	*35-140*			*5F16703*	*06/16/15*	*06/22/15*	*SW8015C DRO*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acenaphthylene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Acetophenone	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Anthracene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Atrazine	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzaldehyde	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)anthracene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(a)pyrene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(b)fluoranthene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(g,h,i)perylene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Benzo(k)fluoranthene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
1,1-Biphenyl	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Bromophenyl-phenylether	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Butylbenzylphthalate	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Caprolactam	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Carbazole	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

DUP-02

1506109-16 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Chloro-3-methylphenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chloroaniline	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chloronaphthalene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Chlorophenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Chrysene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenz(a,h)anthracene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dibenzofuran	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-butylphthalate	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dichlorophenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Diethylphthalate	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dimethylphenol	ND	362	1440	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Dimethyl phthalate	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	905	3620	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrophenol	ND	905	3620	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4-Dinitrotoluene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,6-Dinitrotoluene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Di-n-octylphthalate	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluoranthene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Fluorene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobenzene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorobutadiene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachlorocyclopentadiene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Hexachloroethane	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Isophorone	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylnaphthalene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Methylphenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Methylphenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Naphthalene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
4-Nitroaniline	ND	362	1440	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
3-Nitroaniline	ND	362	1440	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitroaniline	ND	362	1440	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Nitrobenzene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U

DUP-02

1506109-16 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-Nitrophenol	ND	362	1440	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2-Nitrophenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitrosodiphenylamine	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pentachlorophenol	ND	362	1440	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenanthrene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Phenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Pyrene	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,6-Trichlorophenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
2,4,5-Trichlorophenol	ND	90.5	362	ug/Kg dry	1	5F12003	06/15/15	06/17/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*74.6 %*	*45-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*67.6 %*	*35-105*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*68.8 %*	*35-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Phenol-d6		*70.2 %*	*40-100*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*70.4 %*	*30-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*89.5 %*	*35-125*			*5F12003*	*06/15/15*	*06/17/15*	*SW8270D*	*X*

Classical Chemistry Parameters - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15928											
Duplicate (5F15928-DUP1)		**Source: 1506109-12**		Prepared: 06/15/2015 Analyzed: 06/16/2015							
% Solids	83.50	1.0	1.0	%		82.98			0.632	20	

Metals (Total) by ICP - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16726											
Blank (5F16726-BLK1)					Prepared: 06/16/2015 Analyzed: 06/25/2015						
Antimony	ND	1.00	2.00	mg/Kg wet							U
Arsenic	ND	0.600	2.00	mg/Kg wet							U
Beryllium	ND	0.200	1.00	mg/Kg wet							U
Cadmium	ND	0.200	1.00	mg/Kg wet							U
Chromium	ND	0.400	2.00	mg/Kg wet							U
Copper	ND	0.800	2.00	mg/Kg wet							U
Lead	ND	0.300	1.00	mg/Kg wet							U
Nickel	ND	0.600	2.00	mg/Kg wet							U
Selenium	ND	0.600	2.00	mg/Kg wet							U
Silver	ND	0.200	2.00	mg/Kg wet							U
Thallium	ND	0.600	1.60	mg/Kg wet							U
Zinc	ND	1.00	4.00	mg/Kg wet							U
LCS (5F16726-BS1)					Prepared: 06/16/2015 Analyzed: 06/25/2015						
Antimony	50.25	1.00	2.00	mg/Kg wet	50.00		100	80-120			
Arsenic	49.63	0.600	2.00	mg/Kg wet	50.00		99.3	80-120			
Beryllium	10.37	0.200	1.00	mg/Kg wet	10.00		104	80-120			
Cadmium	26.26	0.200	1.00	mg/Kg wet	25.00		105	80-120			
Chromium	42.27	0.400	2.00	mg/Kg wet	40.00		106	80-120			
Copper	52.56	0.800	2.00	mg/Kg wet	50.00		105	80-120			
Lead	52.79	0.300	1.00	mg/Kg wet	50.00		106	80-120			
Nickel	100.6	0.600	2.00	mg/Kg wet	100.0		101	80-120			
Selenium	48.60	0.600	2.00	mg/Kg wet	50.00		97.2	80-120			
Silver	51.36	0.200	2.00	mg/Kg wet	50.00		103	80-120			
Thallium	50.70	0.600	1.60	mg/Kg wet	50.00		101	80-120			
Zinc	100.5	1.00	4.00	mg/Kg wet	100.0		101	80-120			
Matrix Spike (5F16726-MS1)			**Source: 1506109-12**		Prepared: 06/16/2015 Analyzed: 06/25/2015						
Antimony	31.75	1.12	2.23	mg/Kg dry	55.79	ND	56.9	80-120			*
Arsenic	56.52	0.670	2.23	mg/Kg dry	55.79	2.049	97.6	80-120			
Beryllium	12.14	0.223	1.12	mg/Kg dry	11.16	0.3404	106	80-120			
Cadmium	29.41	0.223	1.12	mg/Kg dry	27.90	ND	105	80-120			

Metals (Total) by ICP - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16726											
Matrix Spike (5F16726-MS1)		**Source: 1506109-12**			Prepared: 06/16/2015 Analyzed: 06/25/2015						
Chromium	58.00	0.446	2.23	mg/Kg dry	44.63	9.692	108	80-120			
Copper	62.79	0.893	2.23	mg/Kg dry	55.79	3.211	107	80-120			
Lead	62.85	0.335	1.12	mg/Kg dry	55.79	4.524	105	80-120			
Nickel	116.7	0.670	2.23	mg/Kg dry	111.6	4.564	100	80-120			
Selenium	54.40	0.670	2.23	mg/Kg dry	55.79	ND	97.5	80-120			
Silver	57.23	0.223	2.23	mg/Kg dry	55.79	ND	103	80-120			
Thallium	56.18	0.670	1.79	mg/Kg dry	55.79	ND	101	80-120			
Zinc	124.1	1.12	4.46	mg/Kg dry	111.6	8.309	104	80-120			
Matrix Spike Dup (5F16726-MSD1)		**Source: 1506109-12**			Prepared: 06/16/2015 Analyzed: 06/25/2015						
Antimony	35.29	1.19	2.39	mg/Kg dry	59.66	ND	59.1	80-120	10.6	20	*
Arsenic	60.81	0.716	2.39	mg/Kg dry	59.66	2.049	98.5	80-120	7.31	20	
Beryllium	13.05	0.239	1.19	mg/Kg dry	11.93	0.3404	106	80-120	7.22	20	
Cadmium	31.45	0.239	1.19	mg/Kg dry	29.83	ND	105	80-120	6.73	20	
Chromium	62.37	0.477	2.39	mg/Kg dry	47.73	9.692	110	80-120	7.26	20	
Copper	67.66	0.955	2.39	mg/Kg dry	59.66	3.211	108	80-120	7.46	20	
Lead	67.11	0.358	1.19	mg/Kg dry	59.66	4.524	105	80-120	6.55	20	
Nickel	124.8	0.716	2.39	mg/Kg dry	119.3	4.564	101	80-120	6.70	20	
Selenium	58.24	0.716	2.39	mg/Kg dry	59.66	ND	97.6	80-120	6.81	20	
Silver	61.83	0.239	2.39	mg/Kg dry	59.66	ND	104	80-120	7.71	20	
Thallium	60.48	0.716	1.91	mg/Kg dry	59.66	ND	101	80-120	7.37	20	
Zinc	132.4	1.19	4.77	mg/Kg dry	119.3	8.309	104	80-120	6.51	20	

Mercury by CVAA - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15934											
Blank (5F15934-BLK1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	ND	0.0130	0.0330	mg/Kg wet							U
LCS (5F15934-BS1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	0.3156	0.0130	0.0330	mg/Kg wet	0.3333		94.7	80-120			
Batch 5F15935											
Blank (5F15935-BLK1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	ND	0.0130	0.0330	mg/Kg wet							U
LCS (5F15935-BS1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	0.3638	0.0130	0.0330	mg/Kg wet	0.3333		109	80-120			
Matrix Spike (5F15935-MS1)		**Source: 1506109-12**			Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	0.3762	0.0152	0.0385	mg/Kg dry	0.3888	ND	96.8	80-120			
Matrix Spike Dup (5F15935-MSD1)		**Source: 1506109-12**			Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	0.3530	0.0142	0.0362	mg/Kg dry	0.3652	ND	96.7	80-120	6.35	20	

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Blank (5F15915-BLK1)				Prepared & Analyzed: 06/15/2015							
Acetone	ND	5.00	20.0	ug/Kg wet							U
Benzene	ND	1.25	5.00	ug/Kg wet							U
Bromodichloromethane	ND	1.25	5.00	ug/Kg wet							U
Bromoform	ND	1.25	5.00	ug/Kg wet							U
Bromomethane	ND	2.50	10.0	ug/Kg wet							U
2-Butanone	ND	2.50	10.0	ug/Kg wet							U
Carbon disulfide	ND	1.25	5.00	ug/Kg wet							U
Carbon tetrachloride	ND	1.25	5.00	ug/Kg wet							U
Chlorobenzene	ND	1.25	5.00	ug/Kg wet							U
Chloroethane	ND	2.50	10.0	ug/Kg wet							U
Chloroform	ND	1.25	5.00	ug/Kg wet							U
Chloromethane	ND	2.50	10.0	ug/Kg wet							U
Cyclohexane	ND	1.25	5.00	ug/Kg wet							U
Dibromochloromethane	ND	1.25	5.00	ug/Kg wet							U
1,2-Dibromo-3-chloropropane	ND	2.50	10.0	ug/Kg wet							U
1,2-Dibromoethane (EDB)	ND	1.25	5.00	ug/Kg wet							U
1,2-Dichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
1,3-Dichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
1,4-Dichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
Dichlorodifluoromethane	ND	2.50	10.0	ug/Kg wet							U
1,1-Dichloroethane	ND	1.25	5.00	ug/Kg wet							U
1,2-Dichloroethane	ND	1.25	5.00	ug/Kg wet							U
1,1-Dichloroethene	ND	1.25	5.00	ug/Kg wet							U
cis-1,2-Dichloroethene	ND	1.25	5.00	ug/Kg wet							U
trans-1,2-Dichloroethene	ND	1.25	5.00	ug/Kg wet							U
1,2-Dichloropropane	ND	1.25	5.00	ug/Kg wet							U
cis-1,3-Dichloropropene	ND	1.25	5.00	ug/Kg wet							U
trans-1,3-Dichloropropene	ND	1.25	5.00	ug/Kg wet							U
Ethylbenzene	ND	1.25	5.00	ug/Kg wet							U
2-Hexanone	ND	2.50	10.0	ug/Kg wet							U

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Blank (5F15915-BLK1)				Prepared & Analyzed: 06/15/2015							
Isopropylbenzene	ND	1.25	5.00	ug/Kg wet							U
Methylene chloride	5.41	2.50	10.0	ug/Kg wet							J
Methyl Acetate	ND	2.50	10.0	ug/Kg wet							U
Methylcyclohexane	ND	1.25	5.00	ug/Kg wet							U
4-Methyl-2-pentanone	ND	2.50	10.0	ug/Kg wet							U
Methyl t-Butyl Ether	ND	1.25	5.00	ug/Kg wet							U
Styrene	ND	1.25	5.00	ug/Kg wet							U
1,1,2,2-Tetrachloroethane	ND	1.25	5.00	ug/Kg wet							U
Tetrachloroethene	ND	1.25	5.00	ug/Kg wet							U
Toluene	ND	1.25	5.00	ug/Kg wet							U
1,2,4-Trichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
1,1,2-Trichloroethane	ND	1.25	5.00	ug/Kg wet							U
1,1,1-Trichloroethane	ND	1.25	5.00	ug/Kg wet							U
Trichloroethene	ND	1.25	5.00	ug/Kg wet							U
Trichlorofluoromethane	ND	2.50	10.0	ug/Kg wet							U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.50	10.0	ug/Kg wet							U
Vinyl chloride	ND	1.25	5.00	ug/Kg wet							U
m,p-Xylene	ND	2.50	10.0	ug/Kg wet							U
o-Xylene	ND	1.25	5.00	ug/Kg wet							U
Surrogate: Bromofluorobenzene	*27.58*			*ug/Kg wet*	*30.00*		*91.9*	*85-120*			
Surrogate: Dibromofluoromethane	*29.00*			*ug/Kg wet*	*30.00*		*96.7*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*26.40*			*ug/Kg wet*	*30.00*		*88.0*	*75-140*			
Surrogate: Toluene-d8	*27.40*			*ug/Kg wet*	*30.00*		*91.3*	*85-115*			
Blank (5F15915-BLK2)				Prepared & Analyzed: 06/15/2015							
Acetone	ND	250	1000	ug/Kg wet							U
Benzene	ND	62.5	250	ug/Kg wet							U
Bromodichloromethane	ND	62.5	250	ug/Kg wet							U
Bromoform	ND	62.5	250	ug/Kg wet							U
Bromomethane	ND	125	500	ug/Kg wet							U
2-Butanone	ND	125	500	ug/Kg wet							U
Carbon disulfide	ND	62.5	250	ug/Kg wet							U

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Blank (5F15915-BLK2)				Prepared & Analyzed: 06/15/2015							
Carbon tetrachloride	ND	62.5	250	ug/Kg wet							U
Chlorobenzene	ND	62.5	250	ug/Kg wet							U
Chloroethane	ND	125	500	ug/Kg wet							U
Chloroform	ND	62.5	250	ug/Kg wet							U
Chloromethane	ND	125	500	ug/Kg wet							U
Cyclohexane	ND	62.5	250	ug/Kg wet							U
Dibromochloromethane	ND	62.5	250	ug/Kg wet							U
1,2-Dibromo-3-chloropropane	ND	125	500	ug/Kg wet							U
1,2-Dibromoethane (EDB)	ND	62.5	250	ug/Kg wet							U
1,2-Dichlorobenzene	ND	62.5	250	ug/Kg wet							U
1,3-Dichlorobenzene	ND	62.5	250	ug/Kg wet							U
1,4-Dichlorobenzene	ND	62.5	250	ug/Kg wet							U
Dichlorodifluoromethane	ND	125	500	ug/Kg wet							U
1,1-Dichloroethane	ND	62.5	250	ug/Kg wet							U
1,2-Dichloroethane	ND	62.5	250	ug/Kg wet							U
1,1-Dichloroethene	ND	62.5	250	ug/Kg wet							U
cis-1,2-Dichloroethene	ND	62.5	250	ug/Kg wet							U
trans-1,2-Dichloroethene	ND	62.5	250	ug/Kg wet							U
1,2-Dichloropropane	ND	62.5	250	ug/Kg wet							U
cis-1,3-Dichloropropene	ND	62.5	250	ug/Kg wet							U
trans-1,3-Dichloropropene	ND	62.5	250	ug/Kg wet							U
Ethylbenzene	ND	62.5	250	ug/Kg wet							U
2-Hexanone	ND	125	500	ug/Kg wet							U
Isopropylbenzene	ND	62.5	250	ug/Kg wet							U
Methylene chloride	331	125	500	ug/Kg wet							DJ
Methyl Acetate	ND	125	500	ug/Kg wet							U
Methylcyclohexane	ND	62.5	250	ug/Kg wet							U
4-Methyl-2-pentanone	ND	125	500	ug/Kg wet							U
Methyl t-Butyl Ether	ND	62.5	250	ug/Kg wet							U
Styrene	ND	62.5	250	ug/Kg wet							U

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Blank (5F15915-BLK2)				Prepared & Analyzed: 06/15/2015							
1,1,2,2-Tetrachloroethane	ND	62.5	250	ug/Kg wet							U
Tetrachloroethene	ND	62.5	250	ug/Kg wet							U
Toluene	ND	62.5	250	ug/Kg wet							U
1,2,4-Trichlorobenzene	ND	62.5	250	ug/Kg wet							U
1,1,2-Trichloroethane	ND	62.5	250	ug/Kg wet							U
1,1,1-Trichloroethane	ND	62.5	250	ug/Kg wet							U
Trichloroethene	ND	62.5	250	ug/Kg wet							U
Trichlorofluoromethane	ND	125	500	ug/Kg wet							U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	125	500	ug/Kg wet							U
Vinyl chloride	ND	62.5	250	ug/Kg wet							U
m,p-Xylene	ND	125	500	ug/Kg wet							U
o-Xylene	ND	62.5	250	ug/Kg wet							U
Surrogate: Bromofluorobenzene	*27.24*			*ug/Kg wet*	*30.00*		*90.8*	*85-120*			
Surrogate: Dibromofluoromethane	*28.81*			*ug/Kg wet*	*30.00*		*96.0*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*27.17*			*ug/Kg wet*	*30.00*		*90.6*	*75-140*			
Surrogate: Toluene-d8	*27.07*			*ug/Kg wet*	*30.00*		*90.2*	*85-115*			
LCS (5F15915-BS1)				Prepared & Analyzed: 06/15/2015							
Acetone	128.5	5.00	20.0	ug/Kg wet	100.0		128	20-160			
Benzene	52.09	1.25	5.00	ug/Kg wet	50.00		104	75-125			
Bromodichloromethane	55.10	1.25	5.00	ug/Kg wet	50.00		110	70-130			
Bromoform	50.70	1.25	5.00	ug/Kg wet	50.00		101	55-135			
Bromomethane	51.11	2.50	10.0	ug/Kg wet	50.00		102	30-160			
2-Butanone	118.2	2.50	10.0	ug/Kg wet	100.0		118	30-160			
Carbon disulfide	54.09	1.25	5.00	ug/Kg wet	50.00		108	45-160			
Carbon tetrachloride	49.92	1.25	5.00	ug/Kg wet	50.00		99.8	65-135			
Chlorobenzene	50.48	1.25	5.00	ug/Kg wet	50.00		101	75-125			
Chloroethane	45.66	2.50	10.0	ug/Kg wet	50.00		91.3	40-155			
Chloroform	49.25	1.25	5.00	ug/Kg wet	50.00		98.5	70-125			
Chloromethane	53.41	2.50	10.0	ug/Kg wet	50.00		107	50-130			
Cyclohexane	50.22	1.25	5.00	ug/Kg wet	50.00		100	65-140			
Dibromochloromethane	54.66	1.25	5.00	ug/Kg wet	50.00		109	65-130			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
LCS (5F15915-BS1)					Prepared & Analyzed: 06/15/2015						
1,2-Dibromo-3-chloropropane	49.83	2.50	10.0	ug/Kg wet	50.00		99.7	40-135			
1,2-Dibromoethane (EDB)	52.63	1.25	5.00	ug/Kg wet	50.00		105	70-125			
1,2-Dichlorobenzene	50.45	1.25	5.00	ug/Kg wet	50.00		101	75-120			
1,3-Dichlorobenzene	51.29	1.25	5.00	ug/Kg wet	50.00		103	70-125			
1,4-Dichlorobenzene	50.71	1.25	5.00	ug/Kg wet	50.00		101	70-125			
Dichlorodifluoromethane	54.06	2.50	10.0	ug/Kg wet	50.00		108	35-135			
1,1-Dichloroethane	49.87	1.25	5.00	ug/Kg wet	50.00		99.7	75-125			
1,2-Dichloroethane	51.92	1.25	5.00	ug/Kg wet	50.00		104	70-135			
1,1-Dichloroethene	49.28	1.25	5.00	ug/Kg wet	50.00		98.6	65-135			
cis-1,2-Dichloroethene	49.90	1.25	5.00	ug/Kg wet	50.00		99.8	65-125			
trans-1,2-Dichloroethene	50.48	1.25	5.00	ug/Kg wet	50.00		101	65-135			
1,2-Dichloropropane	53.13	1.25	5.00	ug/Kg wet	50.00		106	70-120			
cis-1,3-Dichloropropene	58.14	1.25	5.00	ug/Kg wet	50.00		116	70-125			
trans-1,3-Dichloropropene	53.15	1.25	5.00	ug/Kg wet	50.00		106	65-125			
Ethylbenzene	52.94	1.25	5.00	ug/Kg wet	50.00		106	75-125			
2-Hexanone	115.5	2.50	10.0	ug/Kg wet	100.0		115	45-145			
Isopropylbenzene	51.65	1.25	5.00	ug/Kg wet	50.00		103	75-130			
Methylene chloride	56.40	2.50	10.0	ug/Kg wet	50.00		113	55-140			
Methyl Acetate	46.98	2.50	10.0	ug/Kg wet	50.00		94.0	45-165			
Methylcyclohexane	51.86	1.25	5.00	ug/Kg wet	50.00		104	65-135			
4-Methyl-2-pentanone	109.3	2.50	10.0	ug/Kg wet	100.0		109	45-145			
Methyl t-Butyl Ether	51.50	1.25	5.00	ug/Kg wet	50.00		103	55-150			
Styrene	56.02	1.25	5.00	ug/Kg wet	50.00		112	75-125			
1,1,2,2-Tetrachloroethane	52.09	1.25	5.00	ug/Kg wet	50.00		104	55-130			
Tetrachloroethene	50.50	1.25	5.00	ug/Kg wet	50.00		101	65-140			
Toluene	51.72	1.25	5.00	ug/Kg wet	50.00		103	70-125			
1,2,4-Trichlorobenzene	50.78	1.25	5.00	ug/Kg wet	50.00		102	65-130			
1,1,2-Trichloroethane	52.28	1.25	5.00	ug/Kg wet	50.00		105	60-125			
1,1,1-Trichloroethane	49.81	1.25	5.00	ug/Kg wet	50.00		99.6	70-135			
Trichloroethene	52.23	1.25	5.00	ug/Kg wet	50.00		104	75-125			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
LCS (5F15915-BS1)					Prepared & Analyzed: 06/15/2015						
Trichlorofluoromethane	52.41	2.50	10.0	ug/Kg wet	50.00		105	25-185			
1,1,2-Trichloro-1,2,2-trifluoroethane	51.16	2.50	10.0	ug/Kg wet	50.00		102	20-185			
Vinyl chloride	55.55	1.25	5.00	ug/Kg wet	50.00		111	60-125			
m,p-Xylene	108.3	2.50	10.0	ug/Kg wet	100.0		108	80-125			
o-Xylene	51.50	1.25	5.00	ug/Kg wet	50.00		103	75-125			
Surrogate: Bromofluorobenzene	*28.36*			*ug/Kg wet*	*30.00*		*94.5*	*85-120*			
Surrogate: Dibromofluoromethane	*27.38*			*ug/Kg wet*	*30.00*		*91.3*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*27.14*			*ug/Kg wet*	*30.00*		*90.5*	*75-140*			
Surrogate: Toluene-d8	*27.70*			*ug/Kg wet*	*30.00*		*92.3*	*85-115*			
Matrix Spike (5F15915-MS1)		**Source: 1506109-12**			Prepared & Analyzed: 06/15/2015						
Acetone	69.15	4.46	17.8	ug/Kg dry	89.14	25.12	49.4	20-160			
Benzene	34.65	1.11	4.46	ug/Kg dry	44.57	ND	77.8	75-125			
Bromodichloromethane	37.23	1.11	4.46	ug/Kg dry	44.57	ND	83.5	70-130			
Bromoform	29.29	1.11	4.46	ug/Kg dry	44.57	ND	65.7	55-135			
Bromomethane	9.274	2.23	8.91	ug/Kg dry	44.57	ND	20.8	30-160			*
2-Butanone	65.38	2.23	8.91	ug/Kg dry	89.14	ND	73.4	30-160			
Carbon disulfide	39.55	1.11	4.46	ug/Kg dry	44.57	1.295	85.8	45-160			
Carbon tetrachloride	34.36	1.11	4.46	ug/Kg dry	44.57	ND	77.1	65-135			
Chlorobenzene	24.93	1.11	4.46	ug/Kg dry	44.57	ND	55.9	75-125			*
Chloroethane	40.15	2.23	8.91	ug/Kg dry	44.57	ND	90.1	40-155			
Chloroform	34.68	1.11	4.46	ug/Kg dry	44.57	ND	77.8	70-125			
Chloromethane	32.98	2.23	8.91	ug/Kg dry	44.57	ND	74.0	50-130			
Cyclohexane	32.25	1.11	4.46	ug/Kg dry	44.57	ND	72.4	65-140			
Dibromochloromethane	32.82	1.11	4.46	ug/Kg dry	44.57	ND	73.6	65-130			
1,2-Dibromo-3-chloropropane	27.25	2.23	8.91	ug/Kg dry	44.57	ND	61.1	40-135			
1,2-Dibromoethane (EDB)	31.90	1.11	4.46	ug/Kg dry	44.57	ND	71.6	70-125			
1,2-Dichlorobenzene	17.68	1.11	4.46	ug/Kg dry	44.57	ND	39.7	75-120			*
1,3-Dichlorobenzene	16.42	1.11	4.46	ug/Kg dry	44.57	ND	36.9	70-125			*
1,4-Dichlorobenzene	15.77	1.11	4.46	ug/Kg dry	44.57	ND	35.4	70-125			*
Dichlorodifluoromethane	39.20	2.23	8.91	ug/Kg dry	44.57	ND	87.9	35-135			
1,1-Dichloroethane	38.28	1.11	4.46	ug/Kg dry	44.57	ND	85.9	75-125			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Matrix Spike (5F15915-MS1)		**Source: 1506109-12**		Prepared & Analyzed: 06/15/2015							
1,2-Dichloroethane	36.53	1.11	4.46	ug/Kg dry	44.57	ND	82.0	70-135			
1,1-Dichloroethene	36.70	1.11	4.46	ug/Kg dry	44.57	ND	82.4	65-135			
cis-1,2-Dichloroethene	34.90	1.11	4.46	ug/Kg dry	44.57	ND	78.3	65-125			
trans-1,2-Dichloroethene	39.29	1.11	4.46	ug/Kg dry	44.57	ND	88.1	65-135			
1,2-Dichloropropane	35.13	1.11	4.46	ug/Kg dry	44.57	ND	78.8	70-120			
cis-1,3-Dichloropropene	34.34	1.11	4.46	ug/Kg dry	44.57	ND	77.1	70-125			
trans-1,3-Dichloropropene	30.04	1.11	4.46	ug/Kg dry	44.57	ND	67.4	65-125			
Ethylbenzene	24.69	1.11	4.46	ug/Kg dry	44.57	ND	55.4	75-125			*
2-Hexanone	57.38	2.23	8.91	ug/Kg dry	89.14	ND	64.4	45-145			
Isopropylbenzene	22.30	1.11	4.46	ug/Kg dry	44.57	ND	50.0	75-130			*
Methylene chloride	39.03	2.23	8.91	ug/Kg dry	44.57	ND	87.6	55-140			
Methyl Acetate	20.52	2.23	8.91	ug/Kg dry	44.57	ND	46.0	45-165			
Methylcyclohexane	30.68	1.11	4.46	ug/Kg dry	44.57	ND	68.8	65-135			
4-Methyl-2-pentanone	72.52	2.23	8.91	ug/Kg dry	89.14	ND	81.4	45-145			
Methyl t-Butyl Ether	41.68	1.11	4.46	ug/Kg dry	44.57	ND	93.5	55-150			
Styrene	23.63	1.11	4.46	ug/Kg dry	44.57	ND	53.0	75-125			*
1,1,2,2-Tetrachloroethane	44.36	1.11	4.46	ug/Kg dry	44.57	ND	99.5	55-130			
Tetrachloroethene	24.09	1.11	4.46	ug/Kg dry	44.57	ND	54.1	65-140			*
Toluene	29.10	1.11	4.46	ug/Kg dry	44.57	ND	65.3	70-125			*
1,2,4-Trichlorobenzene	10.81	1.11	4.46	ug/Kg dry	44.57	ND	24.3	65-130			*
1,1,2-Trichloroethane	33.66	1.11	4.46	ug/Kg dry	44.57	ND	75.5	60-125			
1,1,1-Trichloroethane	34.83	1.11	4.46	ug/Kg dry	44.57	ND	78.1	70-135			
Trichloroethene	29.03	1.11	4.46	ug/Kg dry	44.57	ND	65.1	75-125			*
Trichlorofluoromethane	46.66	2.23	8.91	ug/Kg dry	44.57	ND	105	25-185			
1,1,2-Trichloro-1,2,2-trifluoroethane	36.35	2.23	8.91	ug/Kg dry	44.57	ND	81.6	20-185			
Vinyl chloride	34.12	1.11	4.46	ug/Kg dry	44.57	ND	76.6	60-125			
m,p-Xylene	48.63	2.23	8.91	ug/Kg dry	89.14	ND	54.6	80-125			*
o-Xylene	24.18	1.11	4.46	ug/Kg dry	44.57	ND	54.3	75-125			*
Surrogate: Bromofluorobenzene	*25.75*			*ug/Kg dry*	*26.74*		*96.3*	*85-120*			
Surrogate: Dibromofluoromethane	*29.25*			*ug/Kg dry*	*26.74*		*109*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*26.97*			*ug/Kg dry*	*26.74*		*101*	*75-140*			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Matrix Spike (5F15915-MS1)		**Source: 1506109-12**			Prepared & Analyzed: 06/15/2015						
Surrogate: Toluene-d8	*23.66*			*ug/Kg dry*	*26.74*		*88.5*	*85-115*			
Matrix Spike Dup (5F15915-MSD1)		**Source: 1506109-12**			Prepared & Analyzed: 06/15/2015						
Acetone	96.60	4.44	17.7	ug/Kg dry	88.74	25.12	80.5	20-160	33.1	30	
Benzene	44.56	1.11	4.44	ug/Kg dry	44.37	ND	100	75-125	25.0	30	
Bromodichloromethane	49.94	1.11	4.44	ug/Kg dry	44.37	ND	113	70-130	29.2	30	
Bromoform	42.32	1.11	4.44	ug/Kg dry	44.37	ND	95.4	55-135	36.4	30	
Bromomethane	16.54	2.22	8.87	ug/Kg dry	44.37	ND	37.3	30-160	56.3	30	
2-Butanone	95.45	2.22	8.87	ug/Kg dry	88.74	ND	108	30-160	37.4	30	
Carbon disulfide	48.43	1.11	4.44	ug/Kg dry	44.37	1.295	106	45-160	20.2	30	
Carbon tetrachloride	45.52	1.11	4.44	ug/Kg dry	44.37	ND	103	65-135	27.9	30	
Chlorobenzene	36.88	1.11	4.44	ug/Kg dry	44.37	ND	83.1	75-125	38.7	30	
Chloroethane	40.72	2.22	8.87	ug/Kg dry	44.37	ND	91.8	40-155	1.42	30	
Chloroform	44.11	1.11	4.44	ug/Kg dry	44.37	ND	99.4	70-125	23.9	30	
Chloromethane	37.62	2.22	8.87	ug/Kg dry	44.37	ND	84.8	50-130	13.1	30	
Cyclohexane	41.55	1.11	4.44	ug/Kg dry	44.37	ND	93.6	65-140	25.2	30	
Dibromochloromethane	46.54	1.11	4.44	ug/Kg dry	44.37	ND	105	65-130	34.6	30	
1,2-Dibromo-3-chloropropane	43.72	2.22	8.87	ug/Kg dry	44.37	ND	98.5	40-135	46.4	30	
1,2-Dibromoethane (EDB)	46.97	1.11	4.44	ug/Kg dry	44.37	ND	106	70-125	38.2	30	
1,2-Dichlorobenzene	30.39	1.11	4.44	ug/Kg dry	44.37	ND	68.5	75-120	52.9	30	*
1,3-Dichlorobenzene	28.96	1.11	4.44	ug/Kg dry	44.37	ND	65.3	70-125	55.2	30	*
1,4-Dichlorobenzene	27.84	1.11	4.44	ug/Kg dry	44.37	ND	62.7	70-125	55.4	30	*
Dichlorodifluoromethane	30.56	2.22	8.87	ug/Kg dry	44.37	ND	68.9	35-135	24.8	30	
1,1-Dichloroethane	43.75	1.11	4.44	ug/Kg dry	44.37	ND	98.6	75-125	13.3	30	
1,2-Dichloroethane	48.27	1.11	4.44	ug/Kg dry	44.37	ND	109	70-135	27.7	30	
1,1-Dichloroethene	45.33	1.11	4.44	ug/Kg dry	44.37	ND	102	65-135	21.0	30	
cis-1,2-Dichloroethene	44.53	1.11	4.44	ug/Kg dry	44.37	ND	100	65-125	24.2	30	
trans-1,2-Dichloroethene	44.39	1.11	4.44	ug/Kg dry	44.37	ND	100	65-135	12.2	30	
1,2-Dichloropropane	46.65	1.11	4.44	ug/Kg dry	44.37	ND	105	70-120	28.2	30	
cis-1,3-Dichloropropene	45.97	1.11	4.44	ug/Kg dry	44.37	ND	104	70-125	29.0	30	
trans-1,3-Dichloropropene	41.13	1.11	4.44	ug/Kg dry	44.37	ND	92.7	65-125	31.2	30	

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15915											
Matrix Spike Dup (5F15915-MSD1)		**Source: 1506109-12**			Prepared & Analyzed: 06/15/2015						
Ethylbenzene	36.90	1.11	4.44	ug/Kg dry	44.37	ND	83.2	75-125	39.6	30	
2-Hexanone	93.64	2.22	8.87	ug/Kg dry	88.74	ND	106	45-145	48.0	30	
Isopropylbenzene	34.31	1.11	4.44	ug/Kg dry	44.37	ND	77.3	75-130	42.4	30	
Methylene chloride	41.95	2.22	8.87	ug/Kg dry	44.37	ND	94.5	55-140	7.20	30	
Methyl Acetate	21.72	2.22	8.87	ug/Kg dry	44.37	ND	48.9	45-165	5.69	30	
Methylcyclohexane	42.90	1.11	4.44	ug/Kg dry	44.37	ND	96.7	65-135	33.2	30	
4-Methyl-2-pentanone	107.9	2.22	8.87	ug/Kg dry	88.74	ND	122	45-145	39.2	30	
Methyl t-Butyl Ether	49.74	1.11	4.44	ug/Kg dry	44.37	ND	112	55-150	17.6	30	
Styrene	36.31	1.11	4.44	ug/Kg dry	44.37	ND	81.8	75-125	42.3	30	
1,1,2,2-Tetrachloroethane	65.70	1.11	4.44	ug/Kg dry	44.37	ND	148	55-130	38.8	30	*
Tetrachloroethene	36.22	1.11	4.44	ug/Kg dry	44.37	ND	81.6	65-140	40.2	30	
Toluene	39.83	1.11	4.44	ug/Kg dry	44.37	ND	89.8	70-125	31.2	30	
1,2,4-Trichlorobenzene	24.52	1.11	4.44	ug/Kg dry	44.37	ND	55.3	65-130	77.6	30	*
1,1,2-Trichloroethane	46.25	1.11	4.44	ug/Kg dry	44.37	ND	104	60-125	31.5	30	
1,1,1-Trichloroethane	45.17	1.11	4.44	ug/Kg dry	44.37	ND	102	70-135	25.9	30	
Trichloroethene	39.12	1.11	4.44	ug/Kg dry	44.37	ND	88.2	75-125	29.6	30	
Trichlorofluoromethane	50.63	2.22	8.87	ug/Kg dry	44.37	ND	114	25-185	8.15	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	47.25	2.22	8.87	ug/Kg dry	44.37	ND	106	20-185	26.1	30	
Vinyl chloride	36.29	1.11	4.44	ug/Kg dry	44.37	ND	81.8	60-125	6.16	30	
m,p-Xylene	72.97	2.22	8.87	ug/Kg dry	88.74	ND	82.2	80-125	40.0	30	
o-Xylene	35.80	1.11	4.44	ug/Kg dry	44.37	ND	80.7	75-125	38.7	30	
Surrogate: Bromofluorobenzene	*26.05*			*ug/Kg dry*	*26.62*		*97.8*	*85-120*			
Surrogate: Dibromofluoromethane	*28.31*			*ug/Kg dry*	*26.62*		*106*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*27.18*			*ug/Kg dry*	*26.62*		*102*	*75-140*			
Surrogate: Toluene-d8	*24.32*			*ug/Kg dry*	*26.62*		*91.4*	*85-115*			
Batch 5F17003											
Blank (5F17003-BLK1)					Prepared & Analyzed: 06/17/2015						
Acetone	ND	5.00	20.0	ug/Kg wet							QU
Benzene	ND	1.25	5.00	ug/Kg wet							U
Bromodichloromethane	ND	1.25	5.00	ug/Kg wet							U
Bromoform	ND	1.25	5.00	ug/Kg wet							U

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
Blank (5F17003-BLK1)				Prepared & Analyzed: 06/17/2015							
Bromomethane	ND	2.50	10.0	ug/Kg wet							UX
2-Butanone	ND	2.50	10.0	ug/Kg wet							U
Carbon disulfide	ND	1.25	5.00	ug/Kg wet							U
Carbon tetrachloride	ND	1.25	5.00	ug/Kg wet							U
Chlorobenzene	ND	1.25	5.00	ug/Kg wet							U
Chloroethane	ND	2.50	10.0	ug/Kg wet							U
Chloroform	ND	1.25	5.00	ug/Kg wet							U
Chloromethane	ND	2.50	10.0	ug/Kg wet							U
Cyclohexane	ND	1.25	5.00	ug/Kg wet							U
Dibromochloromethane	ND	1.25	5.00	ug/Kg wet							U
1,2-Dibromo-3-chloropropane	ND	2.50	10.0	ug/Kg wet							U
1,2-Dibromoethane (EDB)	ND	1.25	5.00	ug/Kg wet							U
1,2-Dichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
1,3-Dichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
1,4-Dichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
Dichlorodifluoromethane	ND	2.50	10.0	ug/Kg wet							U
1,1-Dichloroethane	ND	1.25	5.00	ug/Kg wet							U
1,2-Dichloroethane	ND	1.25	5.00	ug/Kg wet							U
1,1-Dichloroethene	ND	1.25	5.00	ug/Kg wet							U
cis-1,2-Dichloroethene	ND	1.25	5.00	ug/Kg wet							U
trans-1,2-Dichloroethene	ND	1.25	5.00	ug/Kg wet							U
1,2-Dichloropropane	ND	1.25	5.00	ug/Kg wet							U
cis-1,3-Dichloropropene	ND	1.25	5.00	ug/Kg wet							U
trans-1,3-Dichloropropene	ND	1.25	5.00	ug/Kg wet							U
Ethylbenzene	ND	1.25	5.00	ug/Kg wet							U
2-Hexanone	ND	2.50	10.0	ug/Kg wet							U
Isopropylbenzene	ND	1.25	5.00	ug/Kg wet							U
Methylene chloride	ND	2.50	10.0	ug/Kg wet							U
Methyl Acetate	ND	2.50	10.0	ug/Kg wet							U
Methylcyclohexane	ND	1.25	5.00	ug/Kg wet							U

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
Blank (5F17003-BLK1)				Prepared & Analyzed: 06/17/2015							
4-Methyl-2-pentanone	ND	2.50	10.0	ug/Kg wet							U
Methyl t-Butyl Ether	ND	1.25	5.00	ug/Kg wet							U
Styrene	ND	1.25	5.00	ug/Kg wet							U
1,1,2,2-Tetrachloroethane	ND	1.25	5.00	ug/Kg wet							UX
Tetrachloroethene	ND	1.25	5.00	ug/Kg wet							U
Toluene	ND	1.25	5.00	ug/Kg wet							U
1,2,4-Trichlorobenzene	ND	1.25	5.00	ug/Kg wet							U
1,1,2-Trichloroethane	ND	1.25	5.00	ug/Kg wet							U
1,1,1-Trichloroethane	ND	1.25	5.00	ug/Kg wet							U
Trichloroethene	ND	1.25	5.00	ug/Kg wet							U
Trichlorofluoromethane	ND	2.50	10.0	ug/Kg wet							U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.50	10.0	ug/Kg wet							U
Vinyl chloride	ND	1.25	5.00	ug/Kg wet							U
m,p-Xylene	ND	2.50	10.0	ug/Kg wet							U
o-Xylene	ND	1.25	5.00	ug/Kg wet							U
Surrogate: Bromofluorobenzene	*27.44*			*ug/Kg wet*	*30.00*		*91.5*	*85-120*			
Surrogate: Dibromofluoromethane	*28.69*			*ug/Kg wet*	*30.00*		*95.6*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*27.92*			*ug/Kg wet*	*30.00*		*93.1*	*75-140*			
Surrogate: Toluene-d8	*27.13*			*ug/Kg wet*	*30.00*		*90.4*	*85-115*			
LCS (5F17003-BS1)				Prepared & Analyzed: 06/17/2015							
Acetone	185.4	5.00	20.0	ug/Kg wet	100.0		185	20-160			*
Benzene	47.51	1.25	5.00	ug/Kg wet	50.00		95.0	75-125			
Bromodichloromethane	50.75	1.25	5.00	ug/Kg wet	50.00		102	70-130			
Bromoform	46.33	1.25	5.00	ug/Kg wet	50.00		92.7	55-135			
Bromomethane	52.63	2.50	10.0	ug/Kg wet	50.00		105	30-160			X
2-Butanone	134.4	2.50	10.0	ug/Kg wet	100.0		134	30-160			
Carbon disulfide	41.87	1.25	5.00	ug/Kg wet	50.00		83.7	45-160			
Carbon tetrachloride	45.36	1.25	5.00	ug/Kg wet	50.00		90.7	65-135			
Chlorobenzene	45.95	1.25	5.00	ug/Kg wet	50.00		91.9	75-125			
Chloroethane	44.87	2.50	10.0	ug/Kg wet	50.00		89.7	40-155			
Chloroform	45.08	1.25	5.00	ug/Kg wet	50.00		90.2	70-125			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
LCS (5F17003-BS1)					Prepared & Analyzed: 06/17/2015						
Chloromethane	50.30	2.50	10.0	ug/Kg wet	50.00		101	50-130			
Cyclohexane	45.55	1.25	5.00	ug/Kg wet	50.00		91.1	65-140			
Dibromochloromethane	49.17	1.25	5.00	ug/Kg wet	50.00		98.3	65-130			
1,2-Dibromo-3-chloropropane	49.21	2.50	10.0	ug/Kg wet	50.00		98.4	40-135			
1,2-Dibromoethane (EDB)	49.75	1.25	5.00	ug/Kg wet	50.00		99.5	70-125			
1,2-Dichlorobenzene	46.23	1.25	5.00	ug/Kg wet	50.00		92.5	75-120			
1,3-Dichlorobenzene	46.93	1.25	5.00	ug/Kg wet	50.00		93.9	70-125			
1,4-Dichlorobenzene	46.17	1.25	5.00	ug/Kg wet	50.00		92.3	70-125			
Dichlorodifluoromethane	50.06	2.50	10.0	ug/Kg wet	50.00		100	35-135			
1,1-Dichloroethane	44.95	1.25	5.00	ug/Kg wet	50.00		89.9	75-125			
1,2-Dichloroethane	48.61	1.25	5.00	ug/Kg wet	50.00		97.2	70-135			
1,1-Dichloroethene	45.33	1.25	5.00	ug/Kg wet	50.00		90.7	65-135			
cis-1,2-Dichloroethene	46.34	1.25	5.00	ug/Kg wet	50.00		92.7	65-125			
trans-1,2-Dichloroethene	47.13	1.25	5.00	ug/Kg wet	50.00		94.3	65-135			
1,2-Dichloropropane	47.68	1.25	5.00	ug/Kg wet	50.00		95.4	70-120			
cis-1,3-Dichloropropene	53.49	1.25	5.00	ug/Kg wet	50.00		107	70-125			
trans-1,3-Dichloropropene	48.71	1.25	5.00	ug/Kg wet	50.00		97.4	65-125			
Ethylbenzene	47.47	1.25	5.00	ug/Kg wet	50.00		94.9	75-125			
2-Hexanone	117.9	2.50	10.0	ug/Kg wet	100.0		118	45-145			
Isopropylbenzene	45.68	1.25	5.00	ug/Kg wet	50.00		91.4	75-130			
Methylene chloride	42.61	2.50	10.0	ug/Kg wet	50.00		85.2	55-140			
Methyl Acetate	43.13	2.50	10.0	ug/Kg wet	50.00		86.3	45-165			
Methylcyclohexane	47.99	1.25	5.00	ug/Kg wet	50.00		96.0	65-135			
4-Methyl-2-pentanone	102.1	2.50	10.0	ug/Kg wet	100.0		102	45-145			
Methyl t-Butyl Ether	47.82	1.25	5.00	ug/Kg wet	50.00		95.6	55-150			
Styrene	50.23	1.25	5.00	ug/Kg wet	50.00		100	75-125			
1,1,2,2-Tetrachloroethane	55.00	1.25	5.00	ug/Kg wet	50.00		110	55-130			X
Tetrachloroethene	45.70	1.25	5.00	ug/Kg wet	50.00		91.4	65-140			
Toluene	47.70	1.25	5.00	ug/Kg wet	50.00		95.4	70-125			
1,2,4-Trichlorobenzene	32.54	1.25	5.00	ug/Kg wet	50.00		65.1	65-130			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
LCS (5F17003-BS1)					Prepared & Analyzed: 06/17/2015						
1,1,2-Trichloroethane	47.90	1.25	5.00	ug/Kg wet	50.00		95.8	60-125			
1,1,1-Trichloroethane	45.88	1.25	5.00	ug/Kg wet	50.00		91.8	70-135			
Trichloroethene	47.79	1.25	5.00	ug/Kg wet	50.00		95.6	75-125			
Trichlorofluoromethane	48.45	2.50	10.0	ug/Kg wet	50.00		96.9	25-185			
1,1,2-Trichloro-1,2,2-trifluoroethane	46.40	2.50	10.0	ug/Kg wet	50.00		92.8	20-185			
Vinyl chloride	44.17	1.25	5.00	ug/Kg wet	50.00		88.3	60-125			
m,p-Xylene	96.27	2.50	10.0	ug/Kg wet	100.0		96.3	80-125			
o-Xylene	45.42	1.25	5.00	ug/Kg wet	50.00		90.8	75-125			
Surrogate: Bromofluorobenzene	*28.12*			*ug/Kg wet*	*30.00*		*93.7*	*85-120*			
Surrogate: Dibromofluoromethane	*28.00*			*ug/Kg wet*	*30.00*		*93.3*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*29.53*			*ug/Kg wet*	*30.00*		*98.4*	*75-140*			
Surrogate: Toluene-d8	*27.84*			*ug/Kg wet*	*30.00*		*92.8*	*85-115*			
Matrix Spike (5F17003-MS1)		**Source: 1506109-12RE1**			Prepared & Analyzed: 06/17/2015						
Acetone	103.2	4.74	19.0	ug/Kg dry	94.89	25.12	82.3	20-160			Q
Benzene	45.57	1.19	4.74	ug/Kg dry	47.45	ND	96.0	75-125			
Bromodichloromethane	53.49	1.19	4.74	ug/Kg dry	47.45	ND	113	70-130			
Bromoform	48.81	1.19	4.74	ug/Kg dry	47.45	ND	103	55-135			
Bromomethane	37.79	2.37	9.49	ug/Kg dry	47.45	ND	79.7	30-160			X
2-Butanone	105.9	2.37	9.49	ug/Kg dry	94.89	ND	112	30-160			
Carbon disulfide	43.00	1.19	4.74	ug/Kg dry	47.45	1.295	87.9	45-160			
Carbon tetrachloride	44.22	1.19	4.74	ug/Kg dry	47.45	ND	93.2	65-135			
Chlorobenzene	43.33	1.19	4.74	ug/Kg dry	47.45	ND	91.3	75-125			
Chloroethane	40.75	2.37	9.49	ug/Kg dry	47.45	ND	85.9	40-155			
Chloroform	44.70	1.19	4.74	ug/Kg dry	47.45	ND	94.2	70-125			
Chloromethane	46.00	2.37	9.49	ug/Kg dry	47.45	ND	97.0	50-130			
Cyclohexane	41.36	1.19	4.74	ug/Kg dry	47.45	ND	87.2	65-140			
Dibromochloromethane	50.72	1.19	4.74	ug/Kg dry	47.45	ND	107	65-130			
1,2-Dibromo-3-chloropropane	54.07	2.37	9.49	ug/Kg dry	47.45	ND	114	40-135			
1,2-Dibromoethane (EDB)	52.04	1.19	4.74	ug/Kg dry	47.45	ND	110	70-125			
1,2-Dichlorobenzene	42.78	1.19	4.74	ug/Kg dry	47.45	ND	90.2	75-120			
1,3-Dichlorobenzene	41.63	1.19	4.74	ug/Kg dry	47.45	ND	87.8	70-125			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
Matrix Spike (5F17003-MS1)		**Source: 1506109-12RE1**		Prepared & Analyzed: 06/17/2015							
1,4-Dichlorobenzene	41.49	1.19	4.74	ug/Kg dry	47.45	ND	87.5	70-125			
Dichlorodifluoromethane	35.11	2.37	9.49	ug/Kg dry	47.45	ND	74.0	35-135			
1,1-Dichloroethane	43.97	1.19	4.74	ug/Kg dry	47.45	ND	92.7	75-125			
1,2-Dichloroethane	51.75	1.19	4.74	ug/Kg dry	47.45	ND	109	70-135			
1,1-Dichloroethene	44.73	1.19	4.74	ug/Kg dry	47.45	ND	94.3	65-135			
cis-1,2-Dichloroethene	45.43	1.19	4.74	ug/Kg dry	47.45	ND	95.7	65-125			
trans-1,2-Dichloroethene	44.79	1.19	4.74	ug/Kg dry	47.45	ND	94.4	65-135			
1,2-Dichloropropane	47.26	1.19	4.74	ug/Kg dry	47.45	ND	99.6	70-120			
cis-1,3-Dichloropropene	53.14	1.19	4.74	ug/Kg dry	47.45	ND	112	70-125			
trans-1,3-Dichloropropene	49.07	1.19	4.74	ug/Kg dry	47.45	ND	103	65-125			
Ethylbenzene	43.39	1.19	4.74	ug/Kg dry	47.45	ND	91.5	75-125			
2-Hexanone	106.8	2.37	9.49	ug/Kg dry	94.89	ND	113	45-145			
Isopropylbenzene	41.10	1.19	4.74	ug/Kg dry	47.45	ND	86.6	75-130			
Methylene chloride	42.44	2.37	9.49	ug/Kg dry	47.45	ND	89.4	55-140			
Methyl Acetate	51.17	2.37	9.49	ug/Kg dry	47.45	ND	108	45-165			
Methylcyclohexane	42.28	1.19	4.74	ug/Kg dry	47.45	ND	89.1	65-135			
4-Methyl-2-pentanone	114.0	2.37	9.49	ug/Kg dry	94.89	ND	120	45-145			
Methyl t-Butyl Ether	57.96	1.19	4.74	ug/Kg dry	47.45	ND	122	55-150			
Styrene	46.90	1.19	4.74	ug/Kg dry	47.45	ND	98.9	75-125			
1,1,2,2-Tetrachloroethane	65.91	1.19	4.74	ug/Kg dry	47.45	ND	139	55-130			*X
Tetrachloroethene	40.33	1.19	4.74	ug/Kg dry	47.45	ND	85.0	65-140			
Toluene	43.22	1.19	4.74	ug/Kg dry	47.45	ND	91.1	70-125			
1,2,4-Trichlorobenzene	29.40	1.19	4.74	ug/Kg dry	47.45	ND	62.0	65-130			*
1,1,2-Trichloroethane	49.96	1.19	4.74	ug/Kg dry	47.45	ND	105	60-125			
1,1,1-Trichloroethane	44.27	1.19	4.74	ug/Kg dry	47.45	ND	93.3	70-135			
Trichloroethene	44.35	1.19	4.74	ug/Kg dry	47.45	ND	93.5	75-125			
Trichlorofluoromethane	49.57	2.37	9.49	ug/Kg dry	47.45	ND	104	25-185			
1,1,2-Trichloro-1,2,2-trifluoroethane	44.69	2.37	9.49	ug/Kg dry	47.45	ND	94.2	20-185			
Vinyl chloride	44.42	1.19	4.74	ug/Kg dry	47.45	ND	93.6	60-125			
m,p-Xylene	87.81	2.37	9.49	ug/Kg dry	94.89	ND	92.5	80-125			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
Matrix Spike (5F17003-MS1)		**Source: 1506109-12RE1**		Prepared & Analyzed: 06/17/2015							
o-Xylene	41.54	1.19	4.74	ug/Kg dry	47.45	ND	87.6	75-125			
Surrogate: Bromofluorobenzene	*27.01*			*ug/Kg dry*	*28.47*		*94.9*	*85-120*			
Surrogate: Dibromofluoromethane	*29.20*			*ug/Kg dry*	*28.47*		*103*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*28.76*			*ug/Kg dry*	*28.47*		*101*	*75-140*			
Surrogate: Toluene-d8	*26.00*			*ug/Kg dry*	*28.47*		*91.3*	*85-115*			
Matrix Spike Dup (5F17003-MSD1)		**Source: 1506109-12RE1**		Prepared & Analyzed: 06/17/2015							
Acetone	160.4	4.96	19.8	ug/Kg dry	99.11	25.12	137	20-160	43.4	30	Q
Benzene	60.70	1.24	4.96	ug/Kg dry	49.55	ND	122	75-125	28.5	30	
Bromodichloromethane	70.69	1.24	4.96	ug/Kg dry	49.55	ND	143	70-130	27.7	30	*
Bromoform	72.38	1.24	4.96	ug/Kg dry	49.55	ND	146	55-135	38.9	30	*
Bromomethane	47.97	2.48	9.91	ug/Kg dry	49.55	ND	96.8	30-160	23.7	30	X
2-Butanone	165.3	2.48	9.91	ug/Kg dry	99.11	ND	167	30-160	43.8	30	*
Carbon disulfide	51.46	1.24	4.96	ug/Kg dry	49.55	1.295	101	45-160	17.9	30	
Carbon tetrachloride	59.47	1.24	4.96	ug/Kg dry	49.55	ND	120	65-135	29.4	30	
Chlorobenzene	56.98	1.24	4.96	ug/Kg dry	49.55	ND	115	75-125	27.2	30	
Chloroethane	51.22	2.48	9.91	ug/Kg dry	49.55	ND	103	40-155	22.8	30	
Chloroform	59.83	1.24	4.96	ug/Kg dry	49.55	ND	121	70-125	29.0	30	
Chloromethane	54.20	2.48	9.91	ug/Kg dry	49.55	ND	109	50-130	16.4	30	
Cyclohexane	54.51	1.24	4.96	ug/Kg dry	49.55	ND	110	65-140	27.4	30	
Dibromochloromethane	71.95	1.24	4.96	ug/Kg dry	49.55	ND	145	65-130	34.6	30	*
1,2-Dibromo-3-chloropropane	83.64	2.48	9.91	ug/Kg dry	49.55	ND	169	40-135	43.0	30	*
1,2-Dibromoethane (EDB)	74.76	1.24	4.96	ug/Kg dry	49.55	ND	151	70-125	35.8	30	*
1,2-Dichlorobenzene	55.55	1.24	4.96	ug/Kg dry	49.55	ND	112	75-120	26.0	30	
1,3-Dichlorobenzene	53.23	1.24	4.96	ug/Kg dry	49.55	ND	107	70-125	24.4	30	
1,4-Dichlorobenzene	52.86	1.24	4.96	ug/Kg dry	49.55	ND	107	70-125	24.1	30	
Dichlorodifluoromethane	40.48	2.48	9.91	ug/Kg dry	49.55	ND	81.7	35-135	14.2	30	
1,1-Dichloroethane	57.46	1.24	4.96	ug/Kg dry	49.55	ND	116	75-125	26.6	30	
1,2-Dichloroethane	70.71	1.24	4.96	ug/Kg dry	49.55	ND	143	70-135	31.0	30	*
1,1-Dichloroethene	56.87	1.24	4.96	ug/Kg dry	49.55	ND	115	65-135	23.9	30	
cis-1,2-Dichloroethene	60.05	1.24	4.96	ug/Kg dry	49.55	ND	121	65-125	27.7	30	
trans-1,2-Dichloroethene	59.19	1.24	4.96	ug/Kg dry	49.55	ND	119	65-135	27.7	30	

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F17003											
Matrix Spike Dup (5F17003-MSD1)		**Source: 1506109-12RE1**		Prepared & Analyzed: 06/17/2015							
1,2-Dichloropropane	63.59	1.24	4.96	ug/Kg dry	49.55	ND	128	70-120	29.5	30	*
cis-1,3-Dichloropropene	71.87	1.24	4.96	ug/Kg dry	49.55	ND	145	70-125	30.0	30	*
trans-1,3-Dichloropropene	68.18	1.24	4.96	ug/Kg dry	49.55	ND	138	65-125	32.6	30	*
Ethylbenzene	57.36	1.24	4.96	ug/Kg dry	49.55	ND	116	75-125	27.7	30	
2-Hexanone	168.3	2.48	9.91	ug/Kg dry	99.11	ND	170	45-145	44.7	30	*
Isopropylbenzene	55.97	1.24	4.96	ug/Kg dry	49.55	ND	113	75-130	30.6	30	
Methylene chloride	55.41	2.48	9.91	ug/Kg dry	49.55	ND	112	55-140	26.5	30	
Methyl Acetate	64.01	2.48	9.91	ug/Kg dry	49.55	ND	129	45-165	22.3	30	
Methylcyclohexane	57.81	1.24	4.96	ug/Kg dry	49.55	ND	117	65-135	31.0	30	
4-Methyl-2-pentanone	172.1	2.48	9.91	ug/Kg dry	99.11	ND	174	45-145	40.6	30	*
Methyl t-Butyl Ether	74.81	1.24	4.96	ug/Kg dry	49.55	ND	151	55-150	25.4	30	*
Styrene	61.69	1.24	4.96	ug/Kg dry	49.55	ND	124	75-125	27.2	30	
1,1,2,2-Tetrachloroethane	99.16	1.24	4.96	ug/Kg dry	49.55	ND	200	55-130	40.3	30	*X
Tetrachloroethene	54.75	1.24	4.96	ug/Kg dry	49.55	ND	110	65-140	30.3	30	
Toluene	57.21	1.24	4.96	ug/Kg dry	49.55	ND	115	70-125	27.9	30	
1,2,4-Trichlorobenzene	37.86	1.24	4.96	ug/Kg dry	49.55	ND	76.4	65-130	25.2	30	
1,1,2-Trichloroethane	69.44	1.24	4.96	ug/Kg dry	49.55	ND	140	60-125	32.6	30	*
1,1,1-Trichloroethane	59.03	1.24	4.96	ug/Kg dry	49.55	ND	119	70-135	28.6	30	
Trichloroethene	56.62	1.24	4.96	ug/Kg dry	49.55	ND	114	75-125	24.3	30	
Trichlorofluoromethane	61.96	2.48	9.91	ug/Kg dry	49.55	ND	125	25-185	22.2	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	58.03	2.48	9.91	ug/Kg dry	49.55	ND	117	20-185	26.0	30	
Vinyl chloride	53.50	1.24	4.96	ug/Kg dry	49.55	ND	108	60-125	18.5	30	
m,p-Xylene	114.2	2.48	9.91	ug/Kg dry	99.11	ND	115	80-125	26.1	30	
o-Xylene	55.50	1.24	4.96	ug/Kg dry	49.55	ND	112	75-125	28.8	30	
Surrogate: Bromofluorobenzene	*29.13*			*ug/Kg dry*	*29.73*		*98.0*	*85-120*			
Surrogate: Dibromofluoromethane	*30.48*			*ug/Kg dry*	*29.73*		*103*	*80-125*			
Surrogate: 1,2-Dichloroethane-d4	*29.19*			*ug/Kg dry*	*29.73*		*98.2*	*75-140*			
Surrogate: Toluene-d8	*27.35*			*ug/Kg dry*	*29.73*		*92.0*	*85-115*			

Diesel Range Organics by GC - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16703											
Blank (5F16703-BLK1)					Prepared: 06/16/2015 Analyzed: 06/22/2015						
Diesel Range Organics (C10-C28)	ND	6.70	13.3	mg/Kg wet							U
Surrogate: o-Terphenyl	*1.118*			*mg/Kg wet*	*1.333*		*83.8*	*35-140*			
LCS (5F16703-BS1)					Prepared: 06/16/2015 Analyzed: 06/22/2015						
Diesel Range Organics (C10-C28)	50.97	6.70	13.3	mg/Kg wet	66.67		76.5	50-150			
Surrogate: o-Terphenyl	*1.156*			*mg/Kg wet*	*1.333*		*86.7*	*35-140*			
Matrix Spike (5F16703-MS1)		**Source: 1506109-12**			Prepared: 06/16/2015 Analyzed: 06/22/2015						
Diesel Range Organics (C10-C28)	61.53	8.07	16.0	mg/Kg dry	80.34	13.82	59.4	50-150			
Surrogate: o-Terphenyl	*1.254*			*mg/Kg dry*	*1.607*		*78.0*	*35-140*			
Matrix Spike Dup (5F16703-MSD1)		**Source: 1506109-12**			Prepared: 06/16/2015 Analyzed: 06/22/2015						
Diesel Range Organics (C10-C28)	66.43	8.07	16.0	mg/Kg dry	80.34	13.82	65.5	50-150	7.66	30	
Surrogate: o-Terphenyl	*1.273*			*mg/Kg dry*	*1.607*		*79.3*	*35-140*			

Organochlorine Pesticides and PCBs by GC - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16704											
Blank (5F16704-BLK1)				Prepared: 06/16/2015 Analyzed: 06/20/2015							
4,4'-DDE	ND	0.170	0.670	ug/Kg wet							U
4,4'-DDE [2C]	ND	0.170	0.670	ug/Kg wet							U
4,4'-DDD	ND	0.170	0.670	ug/Kg wet							U
4,4'-DDD [2C]	ND	0.170	0.670	ug/Kg wet							U
4,4'-DDT	ND	0.170	0.670	ug/Kg wet							U
4,4'-DDT [2C]	ND	0.170	0.670	ug/Kg wet							U
Aldrin	ND	0.110	0.670	ug/Kg wet							U
Aldrin [2C]	ND	0.110	0.670	ug/Kg wet							U
alpha-BHC	ND	0.110	0.670	ug/Kg wet							U
alpha-BHC [2C]	0.121	0.110	0.670	ug/Kg wet							J
alpha-Chlordane	ND	0.110	0.670	ug/Kg wet							U
alpha-Chlordane [2C]	ND	0.110	0.670	ug/Kg wet							U
beta-BHC	0.771	0.110	0.670	ug/Kg wet							
beta-BHC [2C]	ND	0.110	0.670	ug/Kg wet							U
delta-BHC	0.173	0.110	0.670	ug/Kg wet							J
delta-BHC [2C]	ND	0.110	0.670	ug/Kg wet							U
Dieldrin	ND	0.170	0.670	ug/Kg wet							U
Dieldrin [2C]	ND	0.170	0.670	ug/Kg wet							U
Endosulfan I	ND	0.110	0.670	ug/Kg wet							U
Endosulfan I [2C]	ND	0.110	0.670	ug/Kg wet							U
Endosulfan II	ND	0.170	0.670	ug/Kg wet							U
Endosulfan II [2C]	ND	0.170	0.670	ug/Kg wet							U
Endosulfan sulfate	ND	0.170	0.670	ug/Kg wet							U
Endosulfan sulfate [2C]	ND	0.170	0.670	ug/Kg wet							U
Endrin	ND	0.170	0.670	ug/Kg wet							UX
Endrin [2C]	ND	0.170	0.670	ug/Kg wet							U
Endrin aldehyde	ND	0.170	0.670	ug/Kg wet							U
Endrin aldehyde [2C]	ND	0.170	0.670	ug/Kg wet							U
Endrin ketone	ND	0.170	0.670	ug/Kg wet							U
Endrin ketone [2C]	ND	0.170	0.670	ug/Kg wet							U

Organochlorine Pesticides and PCBs by GC - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16704											
Blank (5F16704-BLK1)				Prepared: 06/16/2015 Analyzed: 06/20/2015							
gamma-BHC (Lindane)	ND	0.110	0.670	ug/Kg wet							U
gamma-BHC (Lindane) [2C]	ND	0.110	0.670	ug/Kg wet							U
gamma-Chlordane	4.48	0.110	0.670	ug/Kg wet							M
gamma-Chlordane [2C]	0.204	0.110	0.670	ug/Kg wet							JM
Heptachlor	ND	0.110	0.670	ug/Kg wet							U
Heptachlor [2C]	ND	0.110	0.670	ug/Kg wet							UX
Heptachlor epoxide	ND	0.110	0.670	ug/Kg wet							U
Heptachlor epoxide [2C]	ND	0.110	0.670	ug/Kg wet							U
Methoxychlor	ND	0.110	0.670	ug/Kg wet							U
Methoxychlor [2C]	ND	0.110	0.670	ug/Kg wet							U
Chlordane (n.o.s.)	ND	0.570	3.33	ug/Kg wet							U
Chlordane (n.o.s.) [2C]	ND	0.570	3.33	ug/Kg wet							U
Toxaphene	ND	11.0	33.0	ug/Kg wet							U
Toxaphene [2C]	ND	11.0	33.0	ug/Kg wet							U
Surrogate: Tetrachloro-m-xylene	*13.02*			*ug/Kg wet*	*16.67*		*78.1*	*70-125*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.71*			*ug/Kg wet*	*16.67*		*82.3*	*70-125*			
Surrogate: Decachlorobiphenyl	*15.45*			*ug/Kg wet*	*16.67*		*92.7*	*55-130*			
Surrogate: Decachlorobiphenyl [2C]	*15.91*			*ug/Kg wet*	*16.67*		*95.4*	*55-130*			
LCS (5F16704-BS1)				Prepared: 06/16/2015 Analyzed: 06/20/2015							
4,4'-DDE	27.62	0.170	0.670	ug/Kg wet	33.33		82.8	70-125			
4,4'-DDE [2C]	29.21	0.170	0.670	ug/Kg wet	33.33		87.6	70-125			
4,4'-DDD	27.66	0.170	0.670	ug/Kg wet	33.33		83.0	30-135			
4,4'-DDD [2C]	29.49	0.170	0.670	ug/Kg wet	33.33		88.5	30-135			
4,4'-DDT	30.25	0.170	0.670	ug/Kg wet	33.33		90.7	45-140			
4,4'-DDT [2C]	30.54	0.170	0.670	ug/Kg wet	33.33		91.6	45-140			
Aldrin	24.93	0.110	0.670	ug/Kg wet	33.33		74.8	45-140			
Aldrin [2C]	27.11	0.110	0.670	ug/Kg wet	33.33		81.3	45-140			
alpha-BHC	24.39	0.110	0.670	ug/Kg wet	33.33		73.2	60-125			
alpha-BHC [2C]	26.60	0.110	0.670	ug/Kg wet	33.33		79.8	60-125			B
alpha-Chlordane	25.24	0.110	0.670	ug/Kg wet	33.33		75.7	65-120			
alpha-Chlordane [2C]	25.57	0.110	0.670	ug/Kg wet	33.33		76.7	65-120			

Organochlorine Pesticides and PCBs by GC - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16704											
LCS (5F16704-BS1)					Prepared: 06/16/2015 Analyzed: 06/20/2015						
beta-BHC	24.20	0.110	0.670	ug/Kg wet	33.33		72.6	60-125			B
beta-BHC [2C]	26.56	0.110	0.670	ug/Kg wet	33.33		79.7	60-125			
delta-BHC	25.95	0.110	0.670	ug/Kg wet	33.33		77.9	55-130			B
delta-BHC [2C]	27.84	0.110	0.670	ug/Kg wet	33.33		83.5	55-130			
Dieldrin	26.38	0.170	0.670	ug/Kg wet	33.33		79.1	65-125			
Dieldrin [2C]	28.04	0.170	0.670	ug/Kg wet	33.33		84.1	65-125			
Endosulfan I	26.11	0.110	0.670	ug/Kg wet	33.33		78.3	15-135			
Endosulfan I [2C]	27.13	0.110	0.670	ug/Kg wet	33.33		81.4	15-135			
Endosulfan II	26.57	0.170	0.670	ug/Kg wet	33.33		79.7	35-140			
Endosulfan II [2C]	27.99	0.170	0.670	ug/Kg wet	33.33		84.0	35-140			
Endosulfan sulfate	27.29	0.170	0.670	ug/Kg wet	33.33		81.9	60-135			
Endosulfan sulfate [2C]	27.56	0.170	0.670	ug/Kg wet	33.33		82.7	60-135			
Endrin	30.15	0.170	0.670	ug/Kg wet	33.33		90.4	60-135			X
Endrin [2C]	30.36	0.170	0.670	ug/Kg wet	33.33		91.1	60-135			
Endrin aldehyde	25.12	0.170	0.670	ug/Kg wet	33.33		75.3	35-145			
Endrin aldehyde [2C]	24.80	0.170	0.670	ug/Kg wet	33.33		74.4	35-145			
Endrin ketone	26.06	0.170	0.670	ug/Kg wet	33.33		78.2	65-135			
Endrin ketone [2C]	26.09	0.170	0.670	ug/Kg wet	33.33		78.3	65-135			
gamma-BHC (Lindane)	25.07	0.110	0.670	ug/Kg wet	33.33		75.2	60-125			
gamma-BHC (Lindane) [2C]	27.62	0.110	0.670	ug/Kg wet	33.33		82.9	60-125			
gamma-Chlordane	28.64	0.110	0.670	ug/Kg wet	33.33		85.9	65-125			B
gamma-Chlordane [2C]	27.59	0.110	0.670	ug/Kg wet	33.33		82.8	65-125			B
Heptachlor	28.36	0.110	0.670	ug/Kg wet	33.33		85.1	50-140			
Heptachlor [2C]	30.48	0.110	0.670	ug/Kg wet	33.33		91.4	50-140			X
Heptachlor epoxide	26.07	0.110	0.670	ug/Kg wet	33.33		78.2	65-130			
Heptachlor epoxide [2C]	27.87	0.110	0.670	ug/Kg wet	33.33		83.6	65-130			
Methoxychlor	28.64	0.110	0.670	ug/Kg wet	33.33		85.9	55-145			
Methoxychlor [2C]	27.77	0.110	0.670	ug/Kg wet	33.33		83.3	55-145			
Surrogate: Tetrachloro-m-xylene	*11.69*			*ug/Kg wet*	*16.67*		*70.2*	*70-125*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.35*			*ug/Kg wet*	*16.67*		*74.1*	*70-125*			
Surrogate: Decachlorobiphenyl	*13.43*			*ug/Kg wet*	*16.67*		*80.6*	*55-130*			

Organochlorine Pesticides and PCBs by GC - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16704											
LCS (5F16704-BS1)				Prepared: 06/16/2015 Analyzed: 06/20/2015							
Surrogate: Decachlorobiphenyl [2C]	*14.03*			*ug/Kg wet*	*16.67*		*84.2*	*55-130*			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Blank (5F12003-BLK1)				Prepared: 06/15/2015 Analyzed: 06/16/2015							
Acenaphthene	ND	83.3	333	ug/Kg wet							U
Acenaphthylene	ND	83.3	333	ug/Kg wet							U
Acetophenone	ND	83.3	333	ug/Kg wet							U
Anthracene	ND	83.3	333	ug/Kg wet							U
Atrazine	ND	83.3	333	ug/Kg wet							U
Benzaldehyde	ND	83.3	333	ug/Kg wet							U
Benzo(a)anthracene	ND	83.3	333	ug/Kg wet							U
Benzo(a)pyrene	ND	83.3	333	ug/Kg wet							U
Benzo(b)fluoranthene	ND	83.3	333	ug/Kg wet							U
Benzo(g,h,i)perylene	ND	83.3	333	ug/Kg wet							U
Benzo(k)fluoranthene	ND	83.3	333	ug/Kg wet							U
1,1-Biphenyl	ND	83.3	333	ug/Kg wet							U
4-Bromophenyl-phenylether	ND	83.3	333	ug/Kg wet							U
Butylbenzylphthalate	ND	83.3	333	ug/Kg wet							U
Caprolactam	ND	83.3	333	ug/Kg wet							U
Carbazole	ND	83.3	333	ug/Kg wet							U
4-Chloro-3-methylphenol	ND	83.3	333	ug/Kg wet							U
4-Chloroaniline	ND	83.3	333	ug/Kg wet							U
Bis(2-chloroethoxy)methane	ND	83.3	333	ug/Kg wet							U
Bis(2-chloroethyl)ether	ND	83.3	333	ug/Kg wet							U
2,2'-Oxybis-1-chloropropane	ND	83.3	333	ug/Kg wet							U
2-Chloronaphthalene	ND	83.3	333	ug/Kg wet							U
2-Chlorophenol	ND	83.3	333	ug/Kg wet							U
4-Chlorophenyl phenyl ether	ND	83.3	333	ug/Kg wet							U
Chrysene	ND	83.3	333	ug/Kg wet							U
Dibenz(a,h)anthracene	ND	83.3	333	ug/Kg wet							U
Dibenzofuran	ND	83.3	333	ug/Kg wet							U
Di-n-butylphthalate	ND	83.3	333	ug/Kg wet							U
3,3'-Dichlorobenzidine	ND	83.3	333	ug/Kg wet							U
2,4-Dichlorophenol	ND	83.3	333	ug/Kg wet							U

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Blank (5F12003-BLK1)				Prepared: 06/15/2015 Analyzed: 06/16/2015							
Diethylphthalate	ND	83.3	333	ug/Kg wet							U
2,4-Dimethylphenol	ND	333	1330	ug/Kg wet							U
Dimethyl phthalate	ND	83.3	333	ug/Kg wet							U
4,6-Dinitro-2-methylphenol	ND	833	3330	ug/Kg wet							U
2,4-Dinitrophenol	ND	833	3330	ug/Kg wet							U
2,4-Dinitrotoluene	ND	83.3	333	ug/Kg wet							U
2,6-Dinitrotoluene	ND	83.3	333	ug/Kg wet							U
Di-n-octylphthalate	ND	83.3	333	ug/Kg wet							U
Bis(2-ethylhexyl)phthalate	ND	83.3	333	ug/Kg wet							U
Fluoranthene	ND	83.3	333	ug/Kg wet							U
Fluorene	ND	83.3	333	ug/Kg wet							U
Hexachlorobenzene	ND	83.3	333	ug/Kg wet							U
Hexachlorobutadiene	ND	83.3	333	ug/Kg wet							U
Hexachlorocyclopentadiene	ND	83.3	333	ug/Kg wet							U
Hexachloroethane	ND	83.3	333	ug/Kg wet							U
Indeno(1,2,3-cd)pyrene	ND	83.3	333	ug/Kg wet							U
Isophorone	ND	83.3	333	ug/Kg wet							U
2-Methylnaphthalene	ND	83.3	333	ug/Kg wet							U
2-Methylphenol	ND	83.3	333	ug/Kg wet							U
4-Methylphenol	ND	83.3	333	ug/Kg wet							U
Naphthalene	ND	83.3	333	ug/Kg wet							U
4-Nitroaniline	ND	333	1330	ug/Kg wet							U
3-Nitroaniline	ND	333	1330	ug/Kg wet							U
2-Nitroaniline	ND	333	1330	ug/Kg wet							U
Nitrobenzene	ND	83.3	333	ug/Kg wet							U
4-Nitrophenol	ND	333	1330	ug/Kg wet							U
2-Nitrophenol	ND	83.3	333	ug/Kg wet							U
N-Nitrosodiphenylamine	ND	83.3	333	ug/Kg wet							U
N-Nitroso-di-n-propylamine	ND	83.3	333	ug/Kg wet							U
Pentachlorophenol	ND	333	1330	ug/Kg wet							U

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Blank (5F12003-BLK1)				Prepared: 06/15/2015 Analyzed: 06/16/2015							
Phenanthrene	ND	83.3	333	ug/Kg wet							U
Phenol	ND	83.3	333	ug/Kg wet							U
Pyrene	ND	83.3	333	ug/Kg wet							U
2,4,6-Trichlorophenol	ND	83.3	333	ug/Kg wet							U
2,4,5-Trichlorophenol	ND	83.3	333	ug/Kg wet							U
Surrogate: 2-Fluorobiphenyl	*2787*			*ug/Kg wet*	*3333*		*83.6*	*45-105*			
Surrogate: 2-Fluorophenol	*4877*			*ug/Kg wet*	*6667*		*73.2*	*35-105*			
Surrogate: Nitrobenzene-d5	*2511*			*ug/Kg wet*	*3333*		*75.3*	*35-100*			
Surrogate: Phenol-d6	*5072*			*ug/Kg wet*	*6667*		*76.1*	*40-100*			
Surrogate: Terphenyl-d14	*2584*			*ug/Kg wet*	*3333*		*77.5*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*6706*			*ug/Kg wet*	*6667*		*101*	*35-125*			*X*
LCS (5F12003-BS1)				Prepared: 06/15/2015 Analyzed: 06/16/2015							
Acenaphthene	3034	83.3	333	ug/Kg wet	3333		91.0	45-110			
Acenaphthylene	2941	83.3	333	ug/Kg wet	3333		88.2	45-105			
Acetophenone	2724	83.3	333	ug/Kg wet	3333		81.7	35-110			
Anthracene	2934	83.3	333	ug/Kg wet	3333		88.0	55-105			
Atrazine	3067	83.3	333	ug/Kg wet	3333		92.0	55-105			
Benzaldehyde	2493	83.3	333	ug/Kg wet	3333		74.8	10-160			
Benzo(a)anthracene	2969	83.3	333	ug/Kg wet	3333		89.1	50-110			
Benzo(a)pyrene	2933	83.3	333	ug/Kg wet	3333		88.0	50-110			
Benzo(b)fluoranthene	3130	83.3	333	ug/Kg wet	3333		93.9	45-115			
Benzo(g,h,i)perylene	3102	83.3	333	ug/Kg wet	3333		93.1	40-125			
Benzo(k)fluoranthene	2936	83.3	333	ug/Kg wet	3333		88.1	45-125			
1,1-Biphenyl	2847	83.3	333	ug/Kg wet	3333		85.4	45-110			
4-Bromophenyl-phenylether	3212	83.3	333	ug/Kg wet	3333		96.4	45-115			
Butylbenzylphthalate	2867	83.3	333	ug/Kg wet	3333		86.0	50-125			
Caprolactam	3059	83.3	333	ug/Kg wet	3333		91.8	50-110			
Carbazole	2885	83.3	333	ug/Kg wet	3333		86.6	45-115			
4-Chloro-3-methylphenol	6139	83.3	333	ug/Kg wet	6667		92.1	45-115			
4-Chloroaniline	2492	83.3	333	ug/Kg wet	3333		74.7	10-95			
Bis(2-chloroethoxy)methane	2809	83.3	333	ug/Kg wet	3333		84.3	45-110			
Bis(2-chloroethyl)ether	2668	83.3	333	ug/Kg wet	3333		80.0	40-105			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
LCS (5F12003-BS1)					Prepared: 06/15/2015 Analyzed: 06/16/2015						
2,2'-Oxybis-1-chloropropane	2517	83.3	333	ug/Kg wet	3333		75.5	20-115			
2-Chloronaphthalene	2867	83.3	333	ug/Kg wet	3333		86.0	45-105			
2-Chlorophenol	5586	83.3	333	ug/Kg wet	6667		83.8	45-105			
4-Chlorophenyl phenyl ether	3102	83.3	333	ug/Kg wet	3333		93.1	45-110			
Chrysene	2995	83.3	333	ug/Kg wet	3333		89.8	55-110			
Dibenz(a,h)anthracene	3209	83.3	333	ug/Kg wet	3333		96.3	40-125			
Dibenzofuran	2987	83.3	333	ug/Kg wet	3333		89.6	50-105			
Di-n-butylphthalate	2989	83.3	333	ug/Kg wet	3333		89.7	55-110			
3,3'-Dichlorobenzidine	2757	83.3	333	ug/Kg wet	3333		82.7	19-130			
2,4-Dichlorophenol	5898	83.3	333	ug/Kg wet	6667		88.5	45-110			
Diethylphthalate	3082	83.3	333	ug/Kg wet	3333		92.4	50-115			
2,4-Dimethylphenol	6078	333	1330	ug/Kg wet	6667		91.2	30-105			
Dimethyl phthalate	3133	83.3	333	ug/Kg wet	3333		94.0	50-110			
4,6-Dinitro-2-methylphenol	6403	833	3330	ug/Kg wet	6667		96.0	30-135			
2,4-Dinitrophenol	6125	833	3330	ug/Kg wet	6667		91.9	15-130			
2,4-Dinitrotoluene	3101	83.3	333	ug/Kg wet	3333		93.0	50-115			
2,6-Dinitrotoluene	2939	83.3	333	ug/Kg wet	3333		88.2	50-110			
Di-n-octylphthalate	2869	83.3	333	ug/Kg wet	3333		86.1	40-130			
Bis(2-ethylhexyl)phthalate	2905	83.3	333	ug/Kg wet	3333		87.2	45-125			
Fluoranthene	2976	83.3	333	ug/Kg wet	3333		89.3	55-115			
Fluorene	2994	83.3	333	ug/Kg wet	3333		89.8	50-110			
Hexachlorobenzene	3130	83.3	333	ug/Kg wet	3333		93.9	45-120			
Hexachlorobutadiene	3150	83.3	333	ug/Kg wet	3333		94.5	30-110			
Hexachlorocyclopentadiene	2113	83.3	333	ug/Kg wet	3333		63.4	10-110			
Hexachloroethane	2500	83.3	333	ug/Kg wet	3333		75.0	35-110			
Indeno(1,2,3-cd)pyrene	2933	83.3	333	ug/Kg wet	3333		88.0	40-120			
Isophorone	2493	83.3	333	ug/Kg wet	3333		74.8	45-110			
2-Methylnaphthalene	2666	83.3	333	ug/Kg wet	3333		80.0	40-110			
2-Methylphenol	5687	83.3	333	ug/Kg wet	6667		85.3	40-105			
4-Methylphenol	5862	83.3	333	ug/Kg wet	6667		87.9	40-105			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
LCS (5F12003-BS1)					Prepared: 06/15/2015 Analyzed: 06/16/2015						
Naphthalene	2760	83.3	333	ug/Kg wet	3333		82.8	40-105			
4-Nitroaniline	3074	333	1330	ug/Kg wet	3333		92.2	35-115			
3-Nitroaniline	2666	333	1330	ug/Kg wet	3333		80.0	25-110			
2-Nitroaniline	2981	333	1330	ug/Kg wet	3333		89.4	45-120			
Nitrobenzene	2596	83.3	333	ug/Kg wet	3333		77.9	40-115			
4-Nitrophenol	6602	333	1330	ug/Kg wet	6667		99.0	15-140			
2-Nitrophenol	5679	83.3	333	ug/Kg wet	6667		85.2	40-110			
N-Nitrosodiphenylamine	2547	83.3	333	ug/Kg wet	3333		76.4	50-115			
N-Nitroso-di-n-propylamine	2839	83.3	333	ug/Kg wet	3333		85.2	40-115			
Pentachlorophenol	6857	333	1330	ug/Kg wet	6667		103	25-120			E
Phenanthrene	2965	83.3	333	ug/Kg wet	3333		89.0	50-110			
Phenol	5219	83.3	333	ug/Kg wet	6667		78.3	40-100			
Pyrene	2657	83.3	333	ug/Kg wet	3333		79.7	45-125			
2,4,6-Trichlorophenol	6330	83.3	333	ug/Kg wet	6667		94.9	45-110			
2,4,5-Trichlorophenol	6639	83.3	333	ug/Kg wet	6667		99.6	50-110			
Surrogate: 2-Fluorobiphenyl	*2683*			*ug/Kg wet*	*3333*		*80.5*	*45-105*			
Surrogate: 2-Fluorophenol	*4773*			*ug/Kg wet*	*6667*		*71.6*	*35-105*			
Surrogate: Nitrobenzene-d5	*2426*			*ug/Kg wet*	*3333*		*72.8*	*35-100*			
Surrogate: Phenol-d6	*4963*			*ug/Kg wet*	*6667*		*74.4*	*40-100*			
Surrogate: Terphenyl-d14	*2521*			*ug/Kg wet*	*3333*		*75.6*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*6693*			*ug/Kg wet*	*6667*		*100*	*35-125*			*X*
Matrix Spike (5F12003-MS1)		**Source: 1506109-12**			Prepared: 06/15/2015 Analyzed: 06/17/2015						
Acenaphthene	3505	97.8	391	ug/Kg dry	3915	ND	89.5	45-110			
Acenaphthylene	3353	97.8	391	ug/Kg dry	3915	ND	85.6	45-105			
Acetophenone	3101	97.8	391	ug/Kg dry	3915	ND	79.2	35-110			
Anthracene	3332	97.8	391	ug/Kg dry	3915	ND	85.1	55-105			
Atrazine	3364	97.8	391	ug/Kg dry	3915	ND	85.9	55-105			
Benzaldehyde	2879	97.8	391	ug/Kg dry	3915	ND	73.5	10-160			
Benzo(a)anthracene	3377	97.8	391	ug/Kg dry	3915	ND	86.2	50-110			
Benzo(a)pyrene	3263	97.8	391	ug/Kg dry	3915	ND	83.3	50-110			
Benzo(b)fluoranthene	3352	97.8	391	ug/Kg dry	3915	ND	85.6	45-115			
Benzo(g,h,i)perylene	3726	97.8	391	ug/Kg dry	3915	ND	95.2	40-125			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Matrix Spike (5F12003-MS1)		**Source: 1506109-12**		Prepared: 06/15/2015 Analyzed: 06/17/2015							
Benzo(k)fluoranthene	3293	97.8	391	ug/Kg dry	3915	ND	84.1	45-125			
1,1-Biphenyl	3315	97.8	391	ug/Kg dry	3915	ND	84.7	45-110			
4-Bromophenyl-phenylether	3627	97.8	391	ug/Kg dry	3915	ND	92.6	45-115			
Butylbenzylphthalate	3429	97.8	391	ug/Kg dry	3915	ND	87.6	50-125			
Caprolactam	3404	97.8	391	ug/Kg dry	3915	ND	86.9	50-110			
Carbazole	2812	97.8	391	ug/Kg dry	3915	ND	71.8	45-115			
4-Chloro-3-methylphenol	6905	97.8	391	ug/Kg dry	7831	ND	88.2	45-115			
4-Chloroaniline	2336	97.8	391	ug/Kg dry	3915	ND	59.7	10-95			
Bis(2-chloroethoxy)methane	3202	97.8	391	ug/Kg dry	3915	ND	81.8	45-110			
Bis(2-chloroethyl)ether	3169	97.8	391	ug/Kg dry	3915	ND	80.9	40-105			
2,2'-Oxybis-1-chloropropane	2902	97.8	391	ug/Kg dry	3915	ND	74.1	20-115			
2-Chloronaphthalene	3350	97.8	391	ug/Kg dry	3915	ND	85.6	45-105			
2-Chlorophenol	6477	97.8	391	ug/Kg dry	7831	ND	82.7	45-105			
4-Chlorophenyl phenyl ether	3541	97.8	391	ug/Kg dry	3915	ND	90.4	45-110			
Chrysene	3384	97.8	391	ug/Kg dry	3915	ND	86.4	55-110			
Dibenz(a,h)anthracene	3799	97.8	391	ug/Kg dry	3915	ND	97.0	40-125			
Dibenzofuran	3407	97.8	391	ug/Kg dry	3915	ND	87.0	50-105			
Di-n-butylphthalate	3392	97.8	391	ug/Kg dry	3915	ND	86.6	55-110			
3,3'-Dichlorobenzidine	2846	97.8	391	ug/Kg dry	3915	ND	72.7	19-130			
2,4-Dichlorophenol	6696	97.8	391	ug/Kg dry	7831	ND	85.5	45-110			
Diethylphthalate	3508	97.8	391	ug/Kg dry	3915	ND	89.6	50-115			
2,4-Dimethylphenol	6909	391	1560	ug/Kg dry	7831	ND	88.2	30-105			
Dimethyl phthalate	3560	97.8	391	ug/Kg dry	3915	ND	90.9	50-110			
4,6-Dinitro-2-methylphenol	6409	978	3910	ug/Kg dry	7831	ND	81.8	30-135			
2,4-Dinitrophenol	5605	978	3910	ug/Kg dry	7831	ND	71.6	15-130			
2,4-Dinitrotoluene	3485	97.8	391	ug/Kg dry	3915	ND	89.0	50-115			
2,6-Dinitrotoluene	3411	97.8	391	ug/Kg dry	3915	ND	87.1	50-110			
Di-n-octylphthalate	3297	97.8	391	ug/Kg dry	3915	ND	84.2	40-130			
Bis(2-ethylhexyl)phthalate	3444	97.8	391	ug/Kg dry	3915	ND	88.0	45-125			
Fluoranthene	3264	97.8	391	ug/Kg dry	3915	ND	83.4	55-115			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Matrix Spike (5F12003-MS1)		**Source: 1506109-12**		Prepared: 06/15/2015 Analyzed: 06/17/2015							
Fluorene	3449	97.8	391	ug/Kg dry	3915	ND	88.1	50-110			
Hexachlorobenzene	3520	97.8	391	ug/Kg dry	3915	ND	89.9	45-120			
Hexachlorobutadiene	3629	97.8	391	ug/Kg dry	3915	ND	92.7	30-110			
Hexachlorocyclopentadiene	1621	97.8	391	ug/Kg dry	3915	ND	41.4	10-110			
Hexachloroethane	2893	97.8	391	ug/Kg dry	3915	ND	73.9	35-110			
Indeno(1,2,3-cd)pyrene	3553	97.8	391	ug/Kg dry	3915	ND	90.7	40-120			
Isophorone	2798	97.8	391	ug/Kg dry	3915	ND	71.5	45-110			
2-Methylnaphthalene	2986	97.8	391	ug/Kg dry	3915	ND	76.3	40-110			
2-Methylphenol	6452	97.8	391	ug/Kg dry	7831	ND	82.4	40-105			
4-Methylphenol	6609	97.8	391	ug/Kg dry	7831	ND	84.4	40-105			
Naphthalene	3146	97.8	391	ug/Kg dry	3915	ND	80.4	40-105			
4-Nitroaniline	2893	391	1560	ug/Kg dry	3915	ND	73.9	35-115			
3-Nitroaniline	2809	391	1560	ug/Kg dry	3915	ND	71.7	25-110			
2-Nitroaniline	3381	391	1560	ug/Kg dry	3915	ND	86.4	45-120			
Nitrobenzene	2920	97.8	391	ug/Kg dry	3915	ND	74.6	40-115			
4-Nitrophenol	7549	391	1560	ug/Kg dry	7831	ND	96.4	15-140			
2-Nitrophenol	6557	97.8	391	ug/Kg dry	7831	ND	83.7	40-110			
N-Nitrosodiphenylamine	2848	97.8	391	ug/Kg dry	3915	ND	72.7	50-115			
N-Nitroso-di-n-propylamine	3162	97.8	391	ug/Kg dry	3915	ND	80.8	40-115			
Pentachlorophenol	7947	391	1560	ug/Kg dry	7831	ND	101	25-120			E
Phenanthrene	3330	97.8	391	ug/Kg dry	3915	ND	85.0	50-110			
Phenol	5876	97.8	391	ug/Kg dry	7831	ND	75.0	40-100			
Pyrene	3180	97.8	391	ug/Kg dry	3915	ND	81.2	45-125			
2,4,6-Trichlorophenol	7380	97.8	391	ug/Kg dry	7831	ND	94.2	45-110			
2,4,5-Trichlorophenol	7600	97.8	391	ug/Kg dry	7831	ND	97.1	50-110			
Surrogate: 2-Fluorobiphenyl	*3103*			*ug/Kg dry*	*3915*		*79.3*	*45-105*			
Surrogate: 2-Fluorophenol	*5636*			*ug/Kg dry*	*7831*		*72.0*	*35-105*			
Surrogate: Nitrobenzene-d5	*2815*			*ug/Kg dry*	*3915*		*71.9*	*35-100*			
Surrogate: Phenol-d6	*5672*			*ug/Kg dry*	*7831*		*72.4*	*40-100*			
Surrogate: Terphenyl-d14	*3071*			*ug/Kg dry*	*3915*		*78.4*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*7720*			*ug/Kg dry*	*7831*		*98.6*	*35-125*			*X*

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Matrix Spike Dup (5F12003-MSD1)		**Source: 1506109-12**			Prepared: 06/15/2015 Analyzed: 06/17/2015						
Acenaphthene	3194	99.1	396	ug/Kg dry	3964	ND	80.6	45-110	9.29	30	
Acenaphthylene	3090	99.1	396	ug/Kg dry	3964	ND	78.0	45-105	8.16	30	
Acetophenone	2753	99.1	396	ug/Kg dry	3964	ND	69.4	35-110	11.9	30	
Anthracene	3095	99.1	396	ug/Kg dry	3964	ND	78.1	55-105	7.38	30	
Atrazine	3113	99.1	396	ug/Kg dry	3964	ND	78.5	55-105	7.73	30	
Benzaldehyde	2536	99.1	396	ug/Kg dry	3964	ND	64.0	10-160	12.7	30	
Benzo(a)anthracene	3131	99.1	396	ug/Kg dry	3964	ND	79.0	50-110	7.57	30	
Benzo(a)pyrene	3066	99.1	396	ug/Kg dry	3964	ND	77.3	50-110	6.23	30	
Benzo(b)fluoranthene	3169	99.1	396	ug/Kg dry	3964	ND	79.9	45-115	5.59	30	
Benzo(g,h,i)perylene	3468	99.1	396	ug/Kg dry	3964	ND	87.5	40-125	7.18	30	
Benzo(k)fluoranthene	3087	99.1	396	ug/Kg dry	3964	ND	77.9	45-125	6.44	30	
1,1-Biphenyl	2960	99.1	396	ug/Kg dry	3964	ND	74.7	45-110	11.3	30	
4-Bromophenyl-phenylether	3403	99.1	396	ug/Kg dry	3964	ND	85.8	45-115	6.37	30	
Butylbenzylphthalate	3193	99.1	396	ug/Kg dry	3964	ND	80.5	50-125	7.14	30	
Caprolactam	3204	99.1	396	ug/Kg dry	3964	ND	80.8	50-110	6.06	30	
Carbazole	2468	99.1	396	ug/Kg dry	3964	ND	62.3	45-115	13.0	30	
4-Chloro-3-methylphenol	6326	99.1	396	ug/Kg dry	7928	ND	79.8	45-115	8.74	30	
4-Chloroaniline	2345	99.1	396	ug/Kg dry	3964	ND	59.2	10-95	0.387	30	
Bis(2-chloroethoxy)methane	2870	99.1	396	ug/Kg dry	3964	ND	72.4	45-110	10.9	30	
Bis(2-chloroethyl)ether	2735	99.1	396	ug/Kg dry	3964	ND	69.0	40-105	14.7	30	
2,2'-Oxybis-1-chloropropane	2614	99.1	396	ug/Kg dry	3964	ND	65.9	20-115	10.4	30	
2-Chloronaphthalene	3008	99.1	396	ug/Kg dry	3964	ND	75.9	45-105	10.7	30	
2-Chlorophenol	5779	99.1	396	ug/Kg dry	7928	ND	72.9	45-105	11.4	30	
4-Chlorophenyl phenyl ether	3234	99.1	396	ug/Kg dry	3964	ND	81.6	45-110	9.08	30	
Chrysene	3161	99.1	396	ug/Kg dry	3964	ND	79.7	55-110	6.82	30	
Dibenz(a,h)anthracene	3521	99.1	396	ug/Kg dry	3964	ND	88.8	40-125	7.60	30	
Dibenzofuran	3171	99.1	396	ug/Kg dry	3964	ND	80.0	50-105	7.15	30	
Di-n-butylphthalate	3160	99.1	396	ug/Kg dry	3964	ND	79.7	55-110	7.07	30	
3,3'-Dichlorobenzidine	2496	99.1	396	ug/Kg dry	3964	ND	63.0	19-130	13.1	30	
2,4-Dichlorophenol	6120	99.1	396	ug/Kg dry	7928	ND	77.2	45-110	9.00	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Matrix Spike Dup (5F12003-MSD1)		**Source: 1506109-12**		Prepared: 06/15/2015 Analyzed: 06/17/2015							
Diethylphthalate	3258	99.1	396	ug/Kg dry	3964	ND	82.2	50-115	7.39	30	
2,4-Dimethylphenol	6272	396	1580	ug/Kg dry	7928	ND	79.1	30-105	9.67	30	
Dimethyl phthalate	3270	99.1	396	ug/Kg dry	3964	ND	82.5	50-110	8.47	30	
4,6-Dinitro-2-methylphenol	5858	991	3960	ug/Kg dry	7928	ND	73.9	30-135	8.99	30	
2,4-Dinitrophenol	5060	991	3960	ug/Kg dry	7928	ND	63.8	15-130	10.2	30	
2,4-Dinitrotoluene	3267	99.1	396	ug/Kg dry	3964	ND	82.4	50-115	6.43	30	
2,6-Dinitrotoluene	3149	99.1	396	ug/Kg dry	3964	ND	79.4	50-110	7.98	30	
Di-n-octylphthalate	3121	99.1	396	ug/Kg dry	3964	ND	78.7	40-130	5.49	30	
Bis(2-ethylhexyl)phthalate	3197	99.1	396	ug/Kg dry	3964	ND	80.6	45-125	7.44	30	
Fluoranthene	3021	99.1	396	ug/Kg dry	3964	ND	76.2	55-115	7.73	30	
Fluorene	3128	99.1	396	ug/Kg dry	3964	ND	78.9	50-110	9.78	30	
Hexachlorobenzene	3253	99.1	396	ug/Kg dry	3964	ND	82.1	45-120	7.89	30	
Hexachlorobutadiene	3295	99.1	396	ug/Kg dry	3964	ND	83.1	30-110	9.65	30	
Hexachlorocyclopentadiene	1327	99.1	396	ug/Kg dry	3964	ND	33.5	10-110	19.9	30	
Hexachloroethane	2574	99.1	396	ug/Kg dry	3964	ND	64.9	35-110	11.7	30	
Indeno(1,2,3-cd)pyrene	3302	99.1	396	ug/Kg dry	3964	ND	83.3	40-120	7.32	30	
Isophorone	2513	99.1	396	ug/Kg dry	3964	ND	63.4	45-110	10.7	30	
2-Methylnaphthalene	2719	99.1	396	ug/Kg dry	3964	ND	68.6	40-110	9.36	30	
2-Methylphenol	5836	99.1	396	ug/Kg dry	7928	ND	73.6	40-105	10.0	30	
4-Methylphenol	5967	99.1	396	ug/Kg dry	7928	ND	75.3	40-105	10.2	30	
Naphthalene	2818	99.1	396	ug/Kg dry	3964	ND	71.1	40-105	11.0	30	
4-Nitroaniline	2570	396	1580	ug/Kg dry	3964	ND	64.8	35-115	11.8	30	
3-Nitroaniline	2595	396	1580	ug/Kg dry	3964	ND	65.5	25-110	7.92	30	
2-Nitroaniline	3100	396	1580	ug/Kg dry	3964	ND	78.2	45-120	8.68	30	
Nitrobenzene	2650	99.1	396	ug/Kg dry	3964	ND	66.8	40-115	9.72	30	
4-Nitrophenol	6913	396	1580	ug/Kg dry	7928	ND	87.2	15-140	8.79	30	
2-Nitrophenol	5839	99.1	396	ug/Kg dry	7928	ND	73.6	40-110	11.6	30	
N-Nitrosodiphenylamine	2630	99.1	396	ug/Kg dry	3964	ND	66.4	50-115	7.95	30	
N-Nitroso-di-n-propylamine	2887	99.1	396	ug/Kg dry	3964	ND	72.8	40-115	9.09	30	
Pentachlorophenol	7465	396	1580	ug/Kg dry	7928	ND	94.2	25-120	6.25	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F12003											
Matrix Spike Dup (5F12003-MSD1)		**Source: 1506109-12**		Prepared: 06/15/2015 Analyzed: 06/17/2015							
Phenanthrene	3077	99.1	396	ug/Kg dry	3964	ND	77.6	50-110	7.89	30	
Phenol	5312	99.1	396	ug/Kg dry	7928	ND	67.0	40-100	10.1	30	
Pyrene	2976	99.1	396	ug/Kg dry	3964	ND	75.1	45-125	6.62	30	
2,4,6-Trichlorophenol	6688	99.1	396	ug/Kg dry	7928	ND	84.4	45-110	9.83	30	
2,4,5-Trichlorophenol	7107	99.1	396	ug/Kg dry	7928	ND	89.6	50-110	6.70	30	
Surrogate: 2-Fluorobiphenyl	*2804*			*ug/Kg dry*	*3964*		*70.7*	*45-105*			
Surrogate: 2-Fluorophenol	*4907*			*ug/Kg dry*	*7928*		*61.9*	*35-105*			
Surrogate: Nitrobenzene-d5	*2471*			*ug/Kg dry*	*3964*		*62.3*	*35-100*			
Surrogate: Phenol-d6	*5056*			*ug/Kg dry*	*7928*		*63.8*	*40-100*			
Surrogate: Terphenyl-d14	*2798*			*ug/Kg dry*	*3964*		*70.6*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*6988*			*ug/Kg dry*	*7928*		*88.1*	*35-125*			*X*

Notes and Definitions

U	Analyte included in the analysis, but not detected
M	Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.
J	Detected but below the Reporting Limit/Limit of Quantitation; therefore, result is an estimated concentration (CLP J-Flag).
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
D	Data reported from a dilution
C8	To reduce matrix interference, the sample extract has undergone Copper clean-up, method 3660, which is specific to Sulfur contamination.
B	Analyte is found in the associated blank as well as in the sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

1506109

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

SHIP TO: 621 Mainstream Drive, Suite 270 ♦ Nashville, TN 37228 ♦ 877-345-1113 ♦ (fax) 866-417-0548

26594

Send Results to:	Send Invoice to:
Name Jim Hulbert	Name
Company EA	Company SAA
Address 225 Schilling Circle	Address
City Hunt Valley	City
State, Zip MD 21031	State, Zip
Phone 410-584-7000	Phone
Fax	Fax
E-mail jhulbert@eaest.com	E-mail
Project No./Name: Tyson 14704.08	**Sampler's (Signature):**

Analysis Requirements: SVOCs 8270D; PPL Metals 6010C 7471B; VOCs 8260B; Pesticides 8081A; Herbicides 8151A; TPH-DRO 8015

Lab Use Only:

VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA
Cust. Seals Intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill #:

CAR #:

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	Comments	No. of Bottles	Lab Use Only Containers/Pres.
01	6/9/15 0925	SS-02-0-1	SO		3	
02	0930	SS-02-4-5			3	
03	0850	SS-03-0-1			4	
04	0855	SS-03-4-5			4	
05	0950	SS-06-0-1			1	
06	0955	SS-06-4-5			1	
07	1035	SS-07-0-1			4	
08	1040	SS-07-4-5			4	
09	1105	SS-08-0-1			3	
10	1110	SS-08-4-5			3	
11	1140	SS-10-0-1			5	
12	1145	SS-10-4-5 MS/MSD		MS/MSD	15	

	Date/Time	Received By: (Signature)
Sample Kit Prepared by: (Signature)		
Relinquished by: (Signature)	6/9/15 1530	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time 6/10/15 0904	*Temperature* 0.2

REMARKS:

Details:

Page 1 of 2

Cooler No. 1 of 1

Date Shipped 6/9/15

Shipped By Onsite

Turnaround 10 days

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

I506109

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

SHIP TO: 621 Mainstream Drive, Suite 270 ♦ Nashville, TN 37228 ♦ 877-345-1113 ♦ (fax) 866-417-0548

26596

Send Results to:	Send Invoice to:
Name Jim Hulbert	Name
Company EA	Company
Address 225 Schilling Circle	Address SAA
City Hunt Valley	City
State, Zip MD 21031	State, Zip
Phone 410-584-7000	Phone
Fax	Fax
E-mail jhulbert@eaest.com	E-mail
Project No./Name:	**Sampler's (Signature):**

Analysis Requirements:

SVOCs 8270D
PPL Metals 6010C 7471B
VOCs 8260B
Pesticides 8081A
Herbicides 8151A
TPH-DRO 8015

Lab Use Only:

VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA
Cust. Seals Intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill #:

CAR #:

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	Comments	No. of Bottles	Lab Use Only Containers/Pres.
13	6/4/15 1215	SS-09-0-1			5	
14	1200	SS-09-4-5			5	
15		Dup-01				
16	↓	Dup-02				

	Date/Time	Received By: (Signature)
Sample Kit Prep'd by: (Signature)	6/9/15 1515	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time 6/10/15 0900	*Temperature* 0.2

REMARKS:

Details:

Page 2 of 2

Cooler No. 1 of 1

Date Shipped 6/9/15

Shipped By CMM

Turnaround 10 days

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

II. EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

Cooler Received/Opened On: 06/10/15 @0900

Work order# 1506109

1. Tracking # 1998 (last 4 digits, FedEx)

   Courier: FedEx

2. Temperature of rep. sample or temp blank when opened: 0.2 °C + correction factor(-0.0) = 0.2c

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO (NA)

4. Were custody seals on outside of cooler? (YES)...NO...NA

   If yes, how many and where: 2. front + back

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

   I certify that I opened the cooler and answered questions 1-6 (initial/date) JTG 6/10/15

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

   Were these signed and dated correctly? YES...NO...(NA)

8. Packing material used? (Bubble wrap) (Plastic bag) Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice (Ice-pack) Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13. a. Were VOA vials received? (YES) ~~NO~~...NA JTG 6/10/15

    b. Was there observable headspace present in any VOA vial (>5mm-6mm)? YES...NO...(NA)

14. Was there a Trip Blank in this cooler (custody seals present/intact)? YES...(NO)...NA...Comments_____
    If multiple coolers, sequence #____

    I certify that I unloaded the cooler and answered questions 7-14 (initial/date) JTG 6/10/15

15. a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

    b. Did the bottle labels indicate that the correct preservatives were used? YES...NO...(NA)

16. Was residual chlorine present? YES...NO...(NA)

    I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial/date) JTG 6/10/15

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA If not, PM notified? YES...NO...(NA)

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA If not, PM notified? YES...NO...(NA)

21. Were there Non-Conformance issues at login? YES...(NO)...NCR#_____

I certify that I entered this project into LIMS and answered questions 17-21 (initial/date) JTG 6/10/15

I certify that I attached a label with the unique LIMS number to each container (initial/date) JTG 6/10/15

I certify that I notified the laboratory of any short holding time or RUSH parameters (initial/date) JTG 6/10/15

II. EMPIRICAL LABORATORIES
COOLER RECEIPT FORM (Continued)

LIMS Data Entry Second Check

Work order# 1506109

22. Cooler Receipt Form Issues reviewed and communicated to PM? YES...NO...(NA)

23. Client and Project verified to match the COC/CRF in LIMS Project Screen? (YES)...NO...NA

24. Following items verified to items verified to match the COC/CRF in LIMS Receipt Screen:

a. Received Date/Received By (YES)...NO...NA

b. TAT (COC specified different?) (YES)...NO...NA

c. Shipping Container Temperatures (corrected temps) (YES)...NO ...NA

d. Condition Items (seals, intact, labels, preservation, ROI) (YES)...NO...NA

25. Following LIMS Sample Information verified against COC for each sample:

a. Name (YES)...NO...NA

b. QC Source (YES)...NO...NA

c. Matrix (YES)...NO...NA

d. Sample Type (YES)...NO...NA

e. Sampled Date/Time (Correct Time Zone) (YES)...NO...NA

f. Work Analyses/Versions (if applicable) YES...NO...(NA)

g. Sample Issues included in comments (limited volume, concentration warnings, etc.)? YES...NO...(NA)

h. Unpreserved VOA holding time set to 7 days? YES...NO...(NA)

26. Containers consistent with tests requested? (YES)...NO...NA

27. Field data entered and matching COC? YES...NO...(NA)

I certify that I have verified the LIMS data entry and answered questions 23-27 above (initial/date): MA 6/11/15

Additional Details:

III. EMPIRICAL LABORATORIES, LLC
DATA ENTRY VERIFICATION FORM – PROJECT MANAGEMENT

Workorder#: 1506109

	Verification Item	Yes	No	NA
1.	**Cooler Receipt Form Issues reviewed and communicated to client**			X
2.	**Element/ Project Screen/items verified to match the COC/CRF:**			
a.	**Client/Project**	X		
b.	Comments requiring laboratory reminder?			X
c.	Client and/or Project Memo requiring laboratory reminder?			X
3.	**Receipt Screen items verified to match the COC/CRF:**			
a.	Received Date/Received By	X		
b.	Workorder Due Date	X		
c.	Package Due Date	X		
d.	TAT	X		
e.	SDG Identifier Populated	X		
4.	**Sample Information verified against COC for each sample:**			
a.	Name	X		
b.	QC Source	X		
c.	Matrix	X		
d.	Sample Type	X		
e.	Sampled Date/Time (Correct Time Zone)	X		
f.	Work Analyses/Versions	X		
g.	Sample Issues included in comments	X		
h.	Unpreserved VOA holding time set to 7 days			X
5.	**Containers consistent with tests requested**	X		
6.	**Field data entered and matching COC, if applicable**			X
	I certify that I have performed a second check of the LIMS information against the COC to confirm accuracy (initial/date):	SMG 6/10/2015		

Sample Receipt Confirmation

Empirical Labs

Job No: FA25196

Tyson Chicken
Project No: 1506109

Sample Number	Collected Date	Time	By	Received	TA	Matrix Code	Matrix Type	Client Sample ID
FA25196-1	06/09/15	09:25	EL	06/13/15	4	SO	Soil	1506109-01/SS-02-0-1
FA25196-2	06/09/15	09:30	EL	06/13/15	4	SO	Soil	1506109-02/SS-02-4-5

Tests: %SOL, H8151FL

Tests are displayed after the samples to which they apply.

FA25196

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1506109

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

Accutest Laboratories (SUB)
4405 Vineland Rd
Orlando, FL 32811
Phone :(407) 425-6700
Fax: (407) 425-0707

Project: Tyson Chicken
PO # 15-0441

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: SS-02-0-1				
Reference No: 1506109-01	**Solid**	**Sampled:06/09/2015 09:25**	[redacted]	
SUB_HERB_8151A_SOIL	06/19/2015 16:00	06/23/2015 08:25		
Containers Supplied:				
Sample ID: SS-02-4-5				
Reference No: 1506109-02	**Solid**	**Sampled:06/09/2015 09:30**	[redacted]	
SUB_HERB_8151A_SOIL	06/19/2015 16:00	06/23/2015 08:30		
Containers Supplied:				

Level 2 report
EQuIS EDD

Ref:
Dep:
Date: 12Jun15
Wgt: 12.55 LBS
DV:
0.00
SHIPPING: 17.53
SPECIAL: 17.01
HANDLING: 0.00
TOTAL: 34.54
Svce: PRIORITY OVERNIGHT
TRCK: 8377 6279 2847

Released By — Date 6/12/15 — Received By — Date

Released By — Date — Received By — Date

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA25196 CLIENT: Empirical Labs PROJECT: 1506086

DATE/TIME RECEIVED: 06-13-15 930 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 6377 6279 2847

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.4

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [X] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [X] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

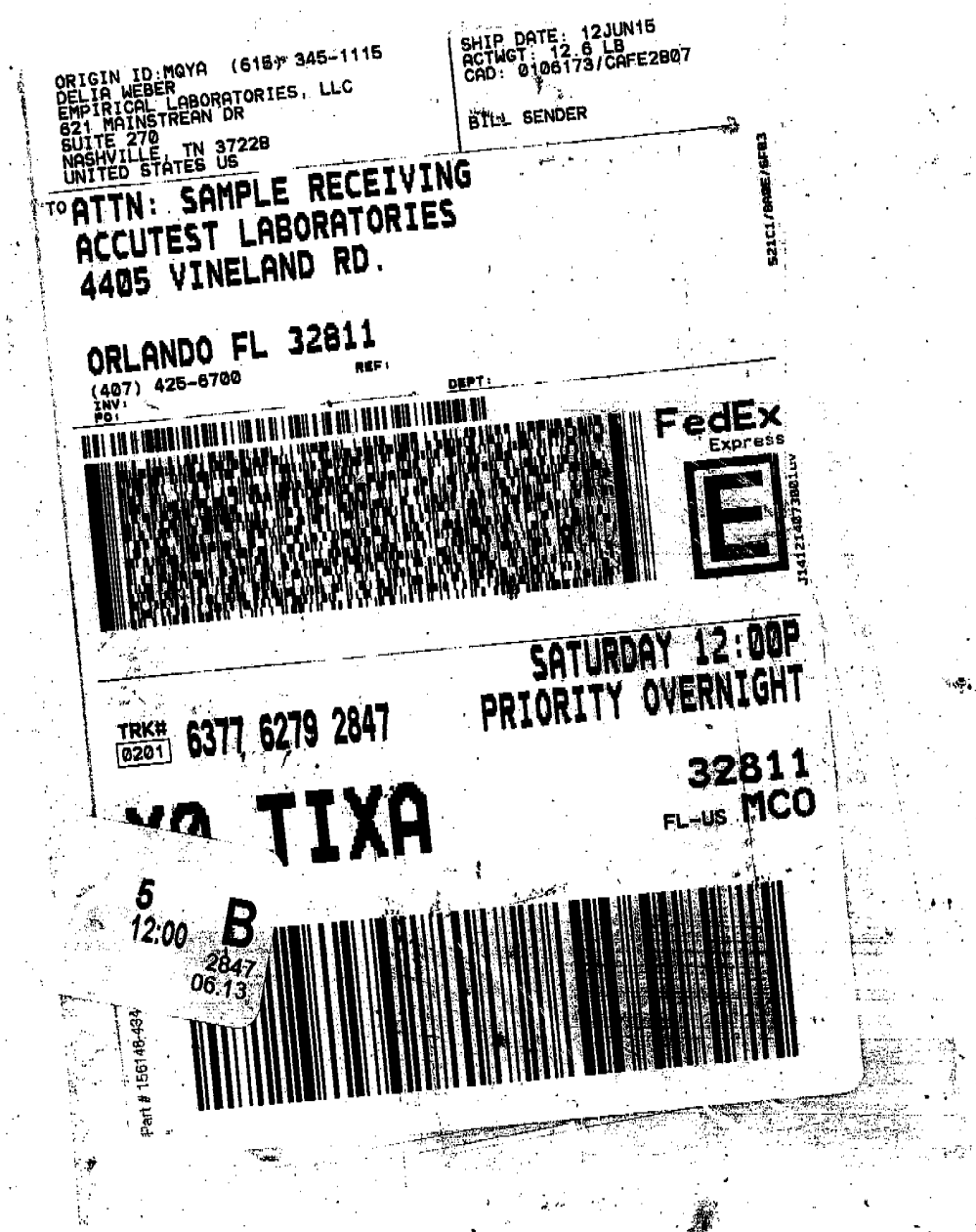
NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

pH PAPER LOT#s WIDE RANGE A036122 NARROW RANGE HC421754 OTHER (specify) 405-230010

SUMMARY OF COMMENTS: No Bottles Received For this COC. We Received 2 4oz Soil Jars EDS 1506109-01A, 1506109-02B With be Sample's 1, 2

TECHNICIAN SIGNATURE/DATE RW 06.15.15 REVIEWER SIGNATURE/DATE


ORIGIN ID:MQYA (615) 345-1115
DELIA WEBER
EMPIRICAL LABORATORIES, LLC
621 MAINSTREAN DR
SUITE 270
NASHVILLE, TN 37228
UNITED STATES US
SHIP DATE: 12JUN15
ACTWGT: 12.6 LB
CAD: 0106173/CAFE2807
BILL SENDER
TO ATTN: SAMPLE RECEIVING
ACCUTEST LABORATORIES
4405 VINELAND RD.
ORLANDO FL 32811
(407) 425-6700
REF:
INV:
PO:
DEPT:
FedEx
Express
SATURDAY 12:00P
PRIORITY OVERNIGHT
TRK# 6377 6279 2847
0201
32811
FL-US MCO
TIXA
5
12:00
B
2847
06.13
Part # 156148-434

Empirical Laboratories, LLC
Certifications/Approvals
(Revised 04/22/2015)

DoD ELAP QSM5.0, Certificate Number L2226
- Aqueous
- Non-aqueous
- Expires: 11/30/2015

State of Florida, Department of Health – NELAP, Lab ID: E87646
- Clean Water Act
- RCRA/CERCLA
- Expires: 06/30/2015

State of Georgia, Environmental Protection Agency – NELAP, Self Certification
- Expires: 06/30/2015

State of Illinois, Environmental Protection Agency – NELAP, Certificate Number: 003464
- Groundwater
- Solid and Hazardous Waste
- Expires: 09/13/2015

Commonwealth of Kentucky, Energy and Environment Cabinet – WWLCP, Laboratory Number: 98017
- Wastewater
- Expires: 12/31/2015

Commonwealth of Kentucky, Department of Environmental Protection – UST, Certificate Number: 77
- Aqueous
- Non-aqueous
- Expires: 06/30/2015

State of New Jersey, Department of Environmental Protection – NELAP Primary, Lab ID: TN473
- Water Pollution
- Solid and Hazardous Waste
- Expires: 06/30/2015

State of North Carolina, Department of Environment and Natural Resources - Certificate Number: 643
- Aqueous
- Non-aqueous
- Expires: 12/31/2015

State of North Dakota, Department of Health – NELAP, Certificate No.: R-204
- Aqueous
- Non-aqueous
- Expires: 06/30/2015

Commonwealth of Pennsylvania, Department of Environmental Protection – NELAP, Lab ID: 68-05374
- Aqueous
- Non-aqueous
- Expires: 10/31/2015

State of Texas, Commission on Environmental Quality – NELAP, Certificate Number: T104704307-15-11
- Aqueous
- Non-aqueous
- Expires: 12/31/2015

State of Utah, Department of Health – NELAP, Certificate Number: TN0042014-6
- Aqueous
- Non-aqueous
- Expires: 07/31/2015

Commonwealth of Virginia, Department of General Services – NELAP, Certificate Number: 7700, Lab ID: 460243
- Aqueous
- Non-aqueous
- Expires: 12/14/2015

State of Washington, Department of Ecology – NELAP, Lab ID: C934-15
- Groundwater
- Solid and Hazardous Waste
- Expires: 03/18/2016

Southeast
ACCUTEST LABORATORIES

06/18/15

Technical Report for

Empirical Labs

Tyson Chicken

1506109

Accutest Job Number: FA25196

Sampling Date: 06/09/15

Report to:

Empirical Labs
621 Mainstream Dr Suite 270
Nashville, TN 37228
sgordon@empirlabs.com

ATTN: Sonya Gordon

Total number of pages in report: **16**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Muna Mohammed 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

Sections: 1 2 3 4 5

Table of Contents

-1-

Sample Summary

Empirical Labs

Job No: FA25196

Tyson Chicken
Project No: 1506109

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA25196-1	06/09/15	09:25	EL	06/13/15	SO	Soil	1506109-01/SS-02-0-1
FA25196-2	06/09/15	09:30	EL	06/13/15	SO	Soil	1506109-02/SS-02-4-5

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: FA25196
Account: Empirical Labs
Project: Tyson Chicken
Collected: 06/09/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA25196-1	**1506109-01/SS-02-0-1**					
Dichloroprop [a]		75.6	39	18	ug/kg	SW846 8151A
2,4-DB [a]		119	39	10	ug/kg	SW846 8151A
FA25196-2	**1506109-02/SS-02-4-5**					
No hits reported in this sample.						

(a) All hits confirmed by dual column analysis.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	1506109-01/SS-02-0-1		
Lab Sample ID:	FA25196-1	**Date Sampled:**	06/09/15
Matrix:	SO - Soil	**Date Received:**	06/13/15
Method:	SW846 8151A SW846 3550C	**Percent Solids:**	85.8
Project:	Tyson Chicken		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	CC048313.D	1	06/17/15	FS	06/16/15	OP56485	GCC855
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	5.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	39	12	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	3.9	0.90	ug/kg	
93-76-5	2,4,5-T	ND	3.9	1.5	ug/kg	
1918-00-9	Dicamba	ND	3.9	1.6	ug/kg	
88-85-7	Dinoseb	ND	96	19	ug/kg	
75-99-0	Dalapon	ND	190	39	ug/kg	
120-36-5	Dichloroprop	75.6	39	18	ug/kg	
94-82-6	2,4-DB	119	39	10	ug/kg	
93-65-2	MCPP	ND	3900	1600	ug/kg	
94-74-6	MCPA	ND	3900	1500	ug/kg	
87-86-5	Pentachlorophenol	ND	3.9	1.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	63%		31-132%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1506109-02/SS-02-4-5		
Lab Sample ID:	FA25196-2	**Date Sampled:**	06/09/15
Matrix:	SO - Soil	**Date Received:**	06/13/15
Method:	SW846 8151A SW846 3550C	**Percent Solids:**	84.7
Project:	Tyson Chicken		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC048314.D	1	06/17/15	FS	06/16/15	OP56485	GCC855
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	5.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	38	11	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	3.8	0.88	ug/kg	
93-76-5	2,4,5-T	ND	3.8	1.5	ug/kg	
1918-00-9	Dicamba	ND	3.8	1.6	ug/kg	
88-85-7	Dinoseb	ND	95	19	ug/kg	
75-99-0	Dalapon	ND	190	38	ug/kg	
120-36-5	Dichloroprop	ND	38	17	ug/kg	
94-82-6	2,4-DB	ND	38	10	ug/kg	
93-65-2	MCPP	ND	3800	1600	ug/kg	
94-74-6	MCPA	ND	3800	1500	ug/kg	
87-86-5	Pentachlorophenol	ND	3.8	1.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	49%		31-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA25196

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1506109

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

Accutest Laboratories (SUB)
4405 Vineland Rd
Orlando, FL 32811
Phone :(407) 425-6700
Fax: (407) 425-0707

Project: Tyson Chicken
PO # 15-0441

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: SS-02-0-1				
Reference No: 1506109-01	**Solid**	**Sampled:06/09/2015 09:25**	[redacted]	
SUB_HERB_8151A_SOIL	06/19/2015 16:00	06/23/2015 08:25		
Containers Supplied:				
Sample ID: SS-02-4-5				
Reference No: 1506109-02	**Solid**	**Sampled:06/09/2015 09:30**	[redacted]	
SUB_HERB_8151A_SOIL	06/19/2015 16:00	06/23/2015 08:30		
Containers Supplied:				

Level 2 report
EQuIS EDD

Ref:
Dep:
Date: 12Jun15
Wgt: 12.85 LBS
DV:
0.00
SHIPPING: 17.53
SPECIAL: 17.01
HANDLING: 0.00
TOTAL: 34.54
Svce: PRIORITY OVERNIGHT
TRCK: 8377 6278 2847

Released By	Date	Received By	Date
[signature]	6/12/15		
Released By	Date	Received By	Date

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SUBCONTRACT ORDER

Empirical Laboratories, LLC

1506086

FA25196

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: OBMW8				
Reference No: 1506086-07	**Water**	**Sampled:06/08/2015 10:45**		
SUB_SPECIALTY	06/18/2015 16:00	12/05/2015 09:45		Perchlorate by 331.0 DW
Containers Supplied:				
Sample ID: OBEB				
Reference No: 1506086-08	**Water**	**Sampled:06/08/2015 12:20**		
SUB_SPECIALTY	06/18/2015 16:00	12/05/2015 11:20		Perchlorate by 331.0 DW
Containers Supplied:				
Sample ID: OBFB				
Reference No: 1506086-09	**Water**	**Sampled:06/08/2015 10:30**		
SUB_SPECIALTY	06/18/2015 16:00	12/05/2015 09:30		Perchlorate by 331.0 DW
Containers Supplied:				

- Samples may be brackish
- Level 4 data package
- Basic excel EDD

Released By _____ Date 6/12/15 Received By FX Date _____

Released By FX 06/13/15 Date 930 Received By _____ Date _____

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FA25196: Chain of Custody

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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA25196 CLIENT: Empirical Labs PROJECT: 1506086

DATE/TIME RECEIVED: 06-13-15 930 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 6377 6279 2847

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 3.4

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [X] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [X] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

pH PAPER LOT#s WIDE RANGE A036122 NARROW RANGE HC421754 OTHER (specify) 405-230010

SUMMARY OF COMMENTS: NO Bottles Received For this COC. We Received 2 4oz Soil Jars FDS 1506109-01A, 1506109-02B With be Samples 1, 2

TECHNICIAN SIGNATURE/DATE RW 06.15.15 REVIEWER SIGNATURE/DATE_____

NF 10/14 receipt confirmation 102914.xls

4.1 4

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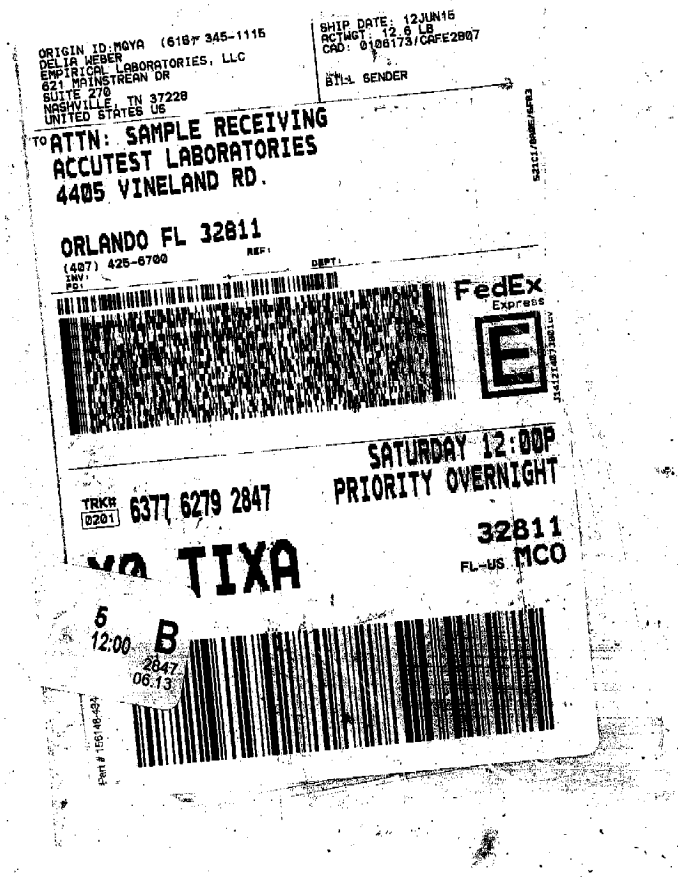

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Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA25196
Account: ELTNN Empirical Labs
Project: Tyson Chicken

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP56485-MB	CC048311.D	1	06/17/15	FS	06/16/15	OP56485	GCC855

The QC reported here applies to the following samples: **Method:** SW846 8151A

FA25196-1, FA25196-2

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	33	10	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	3.3	0.78	ug/kg	
93-76-5	2,4,5-T	ND	3.3	1.3	ug/kg	
1918-00-9	Dicamba	ND	3.3	1.4	ug/kg	
88-85-7	Dinoseb	ND	83	17	ug/kg	
75-99-0	Dalapon	ND	170	33	ug/kg	
120-36-5	Dichloroprop	ND	33	15	ug/kg	
94-82-6	2,4-DB	ND	33	8.8	ug/kg	
93-65-2	MCPP	ND	3300	1400	ug/kg	
94-74-6	MCPA	ND	3300	1300	ug/kg	
87-86-5	Pentachlorophenol	ND	3.3	1.2	ug/kg	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	53%	31-132%

Blank Spike Summary

Job Number: FA25196
Account: ELTNN Empirical Labs
Project: Tyson Chicken

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP56485-BS	CC048312.D	1	06/17/15	FS	06/16/15	OP56485	GCC855

The QC reported here applies to the following samples: **Method:** SW846 8151A

FA25196-1, FA25196-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
94-75-7	2,4-D	167	111	67	43-124
93-72-1	2,4,5-TP (Silvex)	16.7	12.4	74	41-130
93-76-5	2,4,5-T	16.7	12.7	76	40-124
1918-00-9	Dicamba	16.7	10.5	63	32-129
88-85-7	Dinoseb	83.3	21.8	26	10-124
75-99-0	Dalapon	417	115	28	10-133
120-36-5	Dichloroprop	167	142	85	51-145
94-82-6	2,4-DB	167	123	74	42-130
93-65-2	MCPP	16700	12800	77	34-130
94-74-6	MCPA	16700	12800	77	37-124
87-86-5	Pentachlorophenol	16.7	18.5	111	45-126

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	65%	31-132%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA25196
Account: ELTNN Empirical Labs
Project: Tyson Chicken

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP56485-MS	CC048315.D	1	06/17/15	FS	06/16/15	OP56485	GCC855
OP56485-MSD	CC048316.D	1	06/17/15	FS	06/16/15	OP56485	GCC855
FA25196-2	CC048314.D	1	06/17/15	FS	06/16/15	OP56485	GCC855

The QC reported here applies to the following samples: **Method:** SW846 8151A

FA25196-1, FA25196-2

CAS No.	Compound	FA25196-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	ND		189	193	102	188	184	98	5	43-124/32
93-72-1	2,4,5-TP (Silvex)	ND		18.9	10.6	56	18.8	8.7	46	20	41-130/31
93-76-5	2,4,5-T	ND		18.9	9.4	50	18.8	8.3	44	12	40-124/35
1918-00-9	Dicamba	ND		18.9	10.8	57	18.8	10.4	55	4	32-129/34
88-85-7	Dinoseb	ND		94.6	38.8	41	94	21.9	23	56*	10-124/41
75-99-0	Dalapon	ND		473	147	31	470	111	24	28	10-133/35
120-36-5	Dichloroprop	ND		189	132	70	188	114	61	15	51-145/34
94-82-6	2,4-DB	ND		189	149	79	188	123	65	19	42-130/34
93-65-2	MCPP	ND		18900	9190	49	18800	8580	46	7	34-130/34
94-74-6	MCPA	ND		18900	11600	61	18800	10600	56	9	37-124/35
87-86-5	Pentachlorophenol	ND		18.9	15.7	83	18.8	13.6	72	14	45-126/32

CAS No.	Surrogate Recoveries	MS	MSD	FA25196-2	Limits
19719-28-9	2,4-DCAA	54%	48%	49%	31-132%

* = Outside of Control Limits.

Empirical Laboratories, LLC

621 Mainstream Drive, Suite 270
Nashville, TN 37228
615.345.1115 Phone
866.417.0548 Fax

29 June 2015

Jim Hulbert
EA Engineering, Science, and Technology, Inc.
225 Schilling Circle, Suite 400
Hunt Valley, MD 21031

RE: Tyson Chicken

Enclosed are the results of analyses for samples received by the laboratory on 06/11/2015 09:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sonya Gordon
Project Manager

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-01-0-1	1506117-01	Solid	06/10/2015 09:10	06/11/2015 09:30
SS-01-4-5	1506117-02	Solid	06/10/2015 09:15	06/11/2015 09:30
SS-04-0-1	1506117-03	Solid	06/10/2015 09:40	06/11/2015 09:30
SS-04-4-5	1506117-04	Solid	06/10/2015 09:45	06/11/2015 09:30
SS-05-0-1	1506117-05	Solid	06/10/2015 08:40	06/11/2015 09:30
SS-05-4-5	1506117-06	Solid	06/10/2015 08:45	06/11/2015 09:30
GW-03	1506117-07	Water	06/10/2015 13:15	06/11/2015 09:30
GW-04	1506117-08	Water	06/10/2015 11:05	06/11/2015 09:30
DUP-GW-01	1506117-09	Water	06/10/2015 00:00	06/11/2015 09:30
TB-01	1506117-10	Water	06/10/2015 00:00	06/11/2015 09:30

The samples were received and processed using normal regulatory and laboratory protocols. Unless noted in the Final Report, there were no significant data anomalies or failures noted during data assessment and reporting. The results within this report relate only to the samples received and reported for this project and this report shall not be reproduced except in full, without the approval of Empirical Laboratories, LLC. The test results meet all requirements of NELAC unless otherwise noted. Data uncertainty is linked to the method and regulatory mandated quality control data associated with the sample. Prior to accepting a Project, Empirical Laboratories, LLC verifies certification requirements and where applicable ensures that the requirements are in place prior to sample analysis. Many states do not carry matrix or program specific certifications. A listing of certifications held by Empirical Laboratories, LLC is included at the end of this report.

SW8270D

Surrogate 2,4,6-Tribromophenol shows a potential positive bias on a reported concentration exceeding the higher control limit on the high side for CCVs. Associated data are flagged with an X qualifier.

SW7470A

The QC for the Matrix Spike and Matrix Spike Duplicate exceeded criteria in batch 5F09023 for Mercury. Associated samples are flagged with an N qualifier.

SW8260B

The QC for the Matrix Spike and Matrix Spike Duplicate exceeded criteria in batch 5F15917 for Methylcyclohexane. Associated compounds are flagged with an N qualifier.

The QC exceeded criteria in batch 5F15917 for Methylcyclohexane. Associated samples are qualified with a Q qualifier.

Methylcyclohexane shows a potential positive bias on a reported concentration exceeding the higher control limit on the high side for CCVs. Associated data are flagged with an X qualifier.

SS-01-0-1

1506117-01 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**64**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.48	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Arsenic	**0.926**	0.887	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Beryllium	ND	0.296	1.48	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Cadmium	ND	0.296	1.48	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Chromium	**3.70**	0.591	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Copper	**13.3**	1.18	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Lead	**6.43**	0.444	1.48	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Nickel	**3.37**	0.887	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Selenium	ND	0.887	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Silver	ND	0.296	2.96	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Thallium	ND	0.887	2.37	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Zinc	**64.5**	1.48	5.91	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0211	0.0535	mg/Kg dry	1	5F15935	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Acenaphthylene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Acetophenone	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Anthracene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Atrazine	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzaldehyde	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)anthracene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)pyrene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(b)fluoranthene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(g,h,i)perylene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(k)fluoranthene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
1,1-Biphenyl	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Bromophenyl-phenylether	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Butylbenzylphthalate	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Caprolactam	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Carbazole	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloro-3-methylphenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloroaniline	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U

SS-01-0-1

1506117-01 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2,2'-Oxybis-1-chloropropane	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chloronaphthalene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chlorophenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Chrysene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenz(a,h)anthracene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenzofuran	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-butylphthalate	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dichlorophenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Diethylphthalate	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dimethylphenol	ND	5050	20200	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Dimethyl phthalate	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	12600	50500	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrophenol	ND	12600	50500	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrotoluene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,6-Dinitrotoluene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-octylphthalate	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Fluoranthene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Fluorene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobenzene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobutadiene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorocyclopentadiene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachloroethane	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Isophorone	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylnaphthalene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylphenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Methylphenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Naphthalene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitroaniline	ND	5050	20200	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
3-Nitroaniline	ND	5050	20200	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitroaniline	ND	5050	20200	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Nitrobenzene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitrophenol	ND	5050	20200	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitrophenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitrosodiphenylamine	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U

SS-01-0-1

1506117-01 (Solid)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Empirical Laboratories, LLC										
Semivolatile Organic Compounds by GC/MS										
Pentachlorophenol	ND	5050	20200	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Phenanthrene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Phenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Pyrene	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,6-Trichlorophenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,5-Trichlorophenol	ND	1260	5050	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*61.4 %*	*45-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*46.0 %*	*35-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*50.8 %*	*35-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Phenol-d6		*52.1 %*	*40-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*63.6 %*	*30-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*73.7 %*	*35-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	*X*

SS-01-4-5

1506117-02 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**86**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.08	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Arsenic	**1.06**	0.645	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Beryllium	ND	0.215	1.08	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Cadmium	ND	0.215	1.08	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Chromium	**4.71**	0.430	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Copper	**2.52**	0.860	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Lead	**5.45**	0.323	1.08	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Nickel	**2.43**	0.645	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Selenium	ND	0.645	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Silver	ND	0.215	2.15	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Thallium	ND	0.645	1.72	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Zinc	**5.60**	1.08	4.30	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0174	0.0442	mg/Kg dry	1	5F15935	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Acenaphthylene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Acetophenone	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Anthracene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Atrazine	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzaldehyde	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)anthracene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)pyrene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(b)fluoranthene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(g,h,i)perylene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(k)fluoranthene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
1,1-Biphenyl	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Bromophenyl-phenylether	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Butylbenzylphthalate	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Caprolactam	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Carbazole	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloro-3-methylphenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloroaniline	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U

SS-01-4-5

1506117-02 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chlorophenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Chrysene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenz(a,h)anthracene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenzofuran	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-butylphthalate	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dichlorophenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Diethylphthalate	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dimethylphenol	ND	376	1500	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dimethyl phthalate	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	939	3760	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrophenol	ND	939	3760	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrotoluene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,6-Dinitrotoluene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-octylphthalate	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Fluoranthene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Fluorene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobenzene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobutadiene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorocyclopentadiene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachloroethane	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Isophorone	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylnaphthalene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylphenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Methylphenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Naphthalene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitroaniline	ND	376	1500	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
3-Nitroaniline	ND	376	1500	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitroaniline	ND	376	1500	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Nitrobenzene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitrophenol	ND	376	1500	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitrophenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitrosodiphenylamine	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Pentachlorophenol	ND	376	1500	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U

SS-01-4-5

1506117-02 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Phenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Pyrene	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,6-Trichlorophenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,5-Trichlorophenol	ND	93.9	376	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*71.3 %*	*45-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*64.6 %*	*35-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*63.0 %*	*35-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Phenol-d6		*65.9 %*	*40-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*66.4 %*	*30-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*84.6 %*	*35-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	*X*

SS-04-0-1

1506117-03 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**54**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.73	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Arsenic	ND	1.04	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Beryllium	ND	0.347	1.73	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Cadmium	ND	0.347	1.73	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Chromium	**5.22**	0.694	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Copper	**20.4**	1.39	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Lead	**4.72**	0.520	1.73	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Nickel	**3.16**	1.04	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Selenium	ND	1.04	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Silver	ND	0.347	3.47	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Thallium	ND	1.04	2.77	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Zinc	**47.8**	1.73	6.94	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0211	0.0535	mg/Kg dry	1	5F15935	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Acenaphthylene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Acetophenone	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Anthracene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Atrazine	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Benzaldehyde	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)anthracene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)pyrene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(b)fluoranthene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(g,h,i)perylene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(k)fluoranthene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
1,1-Biphenyl	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Bromophenyl-phenylether	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Butylbenzylphthalate	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Caprolactam	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Carbazole	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloro-3-methylphenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloroaniline	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U

SS-04-0-1

1506117-03 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chlorophenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Chrysene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenz(a,h)anthracene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenzofuran	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-butylphthalate	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dichlorophenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Diethylphthalate	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dimethylphenol	ND	2970	11800	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Dimethyl phthalate	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	7420	29700	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrophenol	ND	7420	29700	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrotoluene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,6-Dinitrotoluene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-octylphthalate	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Fluoranthene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Fluorene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobenzene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobutadiene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorocyclopentadiene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachloroethane	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Isophorone	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylnaphthalene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylphenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Methylphenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Naphthalene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitroaniline	ND	2970	11800	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
3-Nitroaniline	ND	2970	11800	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitroaniline	ND	2970	11800	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Nitrobenzene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitrophenol	ND	2970	11800	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitrophenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitrosodiphenylamine	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Pentachlorophenol	ND	2970	11800	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U

SS-04-0-1

1506117-03 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Phenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Pyrene	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,6-Trichlorophenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,5-Trichlorophenol	ND	742	2970	ug/Kg dry	5	5F18004	06/22/15	06/25/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*48.8 %*	*45-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*43.2 %*	*35-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*40.2 %*	*35-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Phenol-d6		*43.3 %*	*40-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*45.4 %*	*30-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*56.5 %*	*35-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	*X*

SS-04-4-5

1506117-04 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**75**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.31	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Arsenic	ND	0.789	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Beryllium	ND	0.263	1.31	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Cadmium	ND	0.263	1.31	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Chromium	**3.62**	0.526	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Copper	**7.52**	1.05	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Lead	**5.59**	0.394	1.31	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Nickel	**2.55**	0.789	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Selenium	ND	0.789	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Silver	ND	0.263	2.63	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Thallium	ND	0.789	2.10	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Zinc	**15.2**	1.31	5.26	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0158	0.0402	mg/Kg dry	1	5F15935	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Acenaphthylene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Acetophenone	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Anthracene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Atrazine	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzaldehyde	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)anthracene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)pyrene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(b)fluoranthene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(g,h,i)perylene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(k)fluoranthene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
1,1-Biphenyl	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Bromophenyl-phenylether	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Butylbenzylphthalate	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Caprolactam	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Carbazole	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloro-3-methylphenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloroaniline	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U

SS-04-4-5

1506117-04 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chlorophenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Chrysene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenz(a,h)anthracene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenzofuran	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-butylphthalate	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dichlorophenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Diethylphthalate	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dimethylphenol	ND	4250	17000	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Dimethyl phthalate	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	10600	42500	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrophenol	ND	10600	42500	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrotoluene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,6-Dinitrotoluene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-octylphthalate	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Fluoranthene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Fluorene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobenzene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobutadiene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorocyclopentadiene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachloroethane	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Isophorone	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylnaphthalene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylphenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Methylphenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Naphthalene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitroaniline	ND	4250	17000	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
3-Nitroaniline	ND	4250	17000	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitroaniline	ND	4250	17000	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Nitrobenzene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitrophenol	ND	4250	17000	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitrophenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitrosodiphenylamine	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Pentachlorophenol	ND	4250	17000	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U

SS-04-4-5

1506117-04 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Phenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Pyrene	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,6-Trichlorophenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,5-Trichlorophenol	ND	1060	4250	ug/Kg dry	10	5F18004	06/22/15	06/25/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*65.2 %*	*45-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*53.1 %*	*35-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*54.4 %*	*35-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Phenol-d6		*55.8 %*	*40-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*64.2 %*	*30-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*77.4 %*	*35-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	*X*

SS-05-0-1

1506117-05 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**78**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.19	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Arsenic	**1.02**	0.714	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Beryllium	ND	0.238	1.19	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Cadmium	ND	0.238	1.19	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Chromium	**5.32**	0.476	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Copper	**2.60**	0.952	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Lead	**8.56**	0.357	1.19	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Nickel	**1.94**	0.714	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Selenium	ND	0.714	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Silver	ND	0.238	2.38	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Thallium	ND	0.714	1.90	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Zinc	**8.44**	1.19	4.76	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0147	0.0374	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Acenaphthylene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Acetophenone	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Anthracene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Atrazine	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzaldehyde	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)anthracene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)pyrene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(b)fluoranthene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(g,h,i)perylene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(k)fluoranthene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
1,1-Biphenyl	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Bromophenyl-phenylether	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Butylbenzylphthalate	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Caprolactam	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Carbazole	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloro-3-methylphenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloroaniline	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U

SS-05-0-1

1506117-05 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chlorophenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Chrysene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenz(a,h)anthracene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenzofuran	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-butylphthalate	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dichlorophenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Diethylphthalate	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dimethylphenol	ND	413	1650	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dimethyl phthalate	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	1030	4130	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrophenol	ND	1030	4130	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrotoluene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,6-Dinitrotoluene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-octylphthalate	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Fluoranthene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Fluorene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobenzene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobutadiene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorocyclopentadiene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachloroethane	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Isophorone	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylnaphthalene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylphenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Methylphenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Naphthalene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitroaniline	ND	413	1650	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
3-Nitroaniline	ND	413	1650	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitroaniline	ND	413	1650	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Nitrobenzene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitrophenol	ND	413	1650	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitrophenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitrosodiphenylamine	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Pentachlorophenol	ND	413	1650	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U

SS-05-0-1

1506117-05 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Phenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Pyrene	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,6-Trichlorophenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,5-Trichlorophenol	ND	103	413	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*65.9 %*	*45-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*58.6 %*	*35-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*57.4 %*	*35-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Phenol-d6		*61.1 %*	*40-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*64.4 %*	*30-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*80.3 %*	*35-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	*X*

SS-05-4-5

1506117-06 (Solid)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Classical Chemistry Parameters										
% Solids	**82**	1.0	1.0	%	1	5F15929	06/15/15	06/16/15	SM2540B	
Metals (Total) by ICP										
Antimony	ND	1.12	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Arsenic	**1.18**	0.674	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Beryllium	**0.257**	0.225	1.12	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	J
Cadmium	ND	0.225	1.12	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Chromium	**13.0**	0.449	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Copper	**3.69**	0.898	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Lead	**6.70**	0.337	1.12	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Nickel	**3.90**	0.674	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Selenium	ND	0.674	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Silver	ND	0.225	2.25	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Thallium	ND	0.674	1.80	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	U
Zinc	**9.04**	1.12	4.49	mg/Kg dry	1	5F16727	06/16/15	06/18/15	SW6010C	
Mercury by CVAA										
Mercury	ND	0.0159	0.0404	mg/Kg dry	1	5F15934	06/15/15	06/17/15	SW7471B	U
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Acenaphthylene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Acetophenone	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Anthracene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Atrazine	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzaldehyde	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)anthracene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(a)pyrene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(b)fluoranthene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(g,h,i)perylene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Benzo(k)fluoranthene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
1,1-Biphenyl	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Bromophenyl-phenylether	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Butylbenzylphthalate	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Caprolactam	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Carbazole	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloro-3-methylphenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chloroaniline	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethoxy)methane	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-chloroethyl)ether	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,2'-Oxybis-1-chloropropane	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U

SS-05-4-5

1506117-06 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
2-Chloronaphthalene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Chlorophenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Chlorophenyl phenyl ether	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Chrysene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenz(a,h)anthracene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dibenzofuran	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-butylphthalate	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
3,3'-Dichlorobenzidine	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dichlorophenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Diethylphthalate	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dimethylphenol	ND	393	1570	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Dimethyl phthalate	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4,6-Dinitro-2-methylphenol	ND	983	3930	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrophenol	ND	983	3930	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4-Dinitrotoluene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,6-Dinitrotoluene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Di-n-octylphthalate	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Bis(2-ethylhexyl)phthalate	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Fluoranthene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Fluorene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobenzene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorobutadiene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachlorocyclopentadiene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Hexachloroethane	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Indeno(1,2,3-cd)pyrene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Isophorone	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylnaphthalene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Methylphenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Methylphenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Naphthalene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitroaniline	ND	393	1570	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
3-Nitroaniline	ND	393	1570	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitroaniline	ND	393	1570	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Nitrobenzene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
4-Nitrophenol	ND	393	1570	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2-Nitrophenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitrosodiphenylamine	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
N-Nitroso-di-n-propylamine	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Pentachlorophenol	ND	393	1570	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U

SS-05-4-5

1506117-06 (Solid)

Empirical Laboratories, LLC

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Phenanthrene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Phenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Pyrene	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,6-Trichlorophenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
2,4,5-Trichlorophenol	ND	98.3	393	ug/Kg dry	1	5F18004	06/22/15	06/25/15	SW8270D	U
Surrogate: 2-Fluorobiphenyl		*73.6 %*	*45-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2-Fluorophenol		*67.0 %*	*35-105*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Nitrobenzene-d5		*65.5 %*	*35-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Phenol-d6		*68.7 %*	*40-100*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: Terphenyl-d14		*69.5 %*	*30-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	
Surrogate: 2,4,6-Tribromophenol		*89.4 %*	*35-125*			*5F18004*	*06/22/15*	*06/25/15*	*SW8270D*	*X*

GW-03

1506117-07 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Empirical Laboratories, LLC										
Metals (Dissolved) by ICP										
Antimony	ND	5.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Arsenic	**3.84**	3.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	J
Beryllium	ND	1.00	5.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Cadmium	ND	1.00	5.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Chromium	ND	2.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Copper	ND	4.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Lead	**4.77**	1.50	5.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	J
Nickel	ND	3.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Selenium	ND	3.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Silver	ND	1.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Thallium	ND	3.00	8.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Zinc	ND	5.00	20.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Mercury (Dissolved) by CVAA										
Mercury	ND	0.0800	0.200	ug/L	1	5F09023	06/18/15	06/18/15	SW7470A	NU
Volatile Organic Compounds by GC/MS										
Acetone	**31.4**	5.00	20.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	D
Benzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	5.00	20.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U

GW-03

1506117-07 (Water)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.50	10.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	NQUX
4-Methyl-2-pentanone	ND	2.50	10.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Styrene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Toluene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*99.7 %*		*75-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*101 %*		*85-115*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*98.3 %*		*70-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*100 %*		*85-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	

GW-04

1506117-08 (Water)

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals (Dissolved) by ICP										
Antimony	ND	5.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Arsenic	ND	3.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Beryllium	ND	1.00	5.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Cadmium	ND	1.00	5.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Chromium	ND	2.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Copper	ND	4.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Lead	ND	1.50	5.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Nickel	ND	3.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Selenium	ND	3.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Silver	ND	1.00	10.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Thallium	ND	3.00	8.00	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Zinc	ND	5.00	20.0	ug/L	1	5F19005	06/19/15	06/22/15	SW6010C	U
Mercury (Dissolved) by CVAA										
Mercury	ND	0.0800	0.200	ug/L	1	5F09023	06/18/15	06/18/15	SW7470A	NU
Volatile Organic Compounds by GC/MS										
Acetone	**30.6**	5.00	20.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	D
Benzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	5.00	20.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U

GW-04

1506117-08 (Water)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.50	10.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	QUX
4-Methyl-2-pentanone	ND	2.50	10.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Styrene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Toluene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*99.4 %*		*75-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*100 %*		*85-115*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*70-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*101 %*		*85-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	

DUP-GW-01

1506117-09 (Water)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acetone	**49.0**	5.00	20.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	D
Benzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	5.00	20.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	2.50	10.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methylene chloride	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl Acetate	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	QUX
4-Methyl-2-pentanone	ND	2.50	10.0	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Styrene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U

DUP-GW-01

1506117-09 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Empirical Laboratories, LLC										
Volatile Organic Compounds by GC/MS										
Toluene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	1.00	4.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	0.500	2.00	ug/L	2	5F15917	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*99.0 %*		*75-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*101 %*		*85-115*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*99.3 %*		*70-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*101 %*		*85-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	

TB-01

1506117-10 (Water)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acetone	ND	2.50	10.0	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Benzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Bromodichloromethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Bromoform	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Bromomethane	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
2-Butanone	ND	2.50	10.0	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon disulfide	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Carbon tetrachloride	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Chlorobenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroethane	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Chloroform	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Chloromethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Cyclohexane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Dibromochloromethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromo-3-chloropropane	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dibromoethane (EDB)	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichlorobenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,3-Dichlorobenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,4-Dichlorobenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Dichlorodifluoromethane	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloroethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,1-Dichloroethene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
cis-1,2-Dichloroethene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,2-Dichloroethene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,2-Dichloropropane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
cis-1,3-Dichloropropene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
trans-1,3-Dichloropropene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Ethylbenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
2-Hexanone	ND	1.25	5.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Isopropylbenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Methylene chloride	**0.797**	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	J
Methyl Acetate	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Methylcyclohexane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	QUX
4-Methyl-2-pentanone	ND	1.25	5.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Methyl t-Butyl Ether	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Styrene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2,2-Tetrachloroethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Tetrachloroethene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U

TB-01

1506117-10 (Water)

Empirical Laboratories, LLC

Volatile Organic Compounds by GC/MS

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Toluene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,2,4-Trichlorobenzene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloroethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,1-Trichloroethane	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Trichloroethene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Trichlorofluoromethane	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Vinyl chloride	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
m,p-Xylene	ND	0.500	2.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
o-Xylene	ND	0.250	1.00	ug/L	1	5F15917	06/15/15	06/15/15	SW8260B	U
Surrogate: Bromofluorobenzene		*100 %*		*75-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Dibromofluoromethane		*97.3 %*		*85-115*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: 1,2-Dichloroethane-d4		*99.4 %*		*70-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	
Surrogate: Toluene-d8		*102 %*		*85-120*		*5F15917*	*06/15/15*	*06/15/15*	*SW8260B*	

Metals (Dissolved) by ICP - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F19005											
Blank (5F19005-BLK1)					Prepared: 06/19/2015 Analyzed: 06/22/2015						
Antimony	ND	5.00	10.0	ug/L							U
Arsenic	ND	3.00	10.0	ug/L							U
Beryllium	ND	1.00	5.00	ug/L							U
Cadmium	ND	1.00	5.00	ug/L							U
Chromium	ND	2.00	10.0	ug/L							U
Copper	ND	4.00	10.0	ug/L							U
Lead	ND	1.50	5.00	ug/L							U
Nickel	ND	3.00	10.0	ug/L							U
Selenium	ND	3.00	10.0	ug/L							U
Silver	ND	1.00	10.0	ug/L							U
Thallium	ND	3.00	8.00	ug/L							U
Zinc	ND	5.00	20.0	ug/L							U
LCS (5F19005-BS1)					Prepared: 06/19/2015 Analyzed: 06/22/2015						
Antimony	251.5	5.00	10.0	ug/L	250.0		101	80-120			
Arsenic	253.6	3.00	10.0	ug/L	250.0		101	80-120			
Beryllium	50.82	1.00	5.00	ug/L	50.00		102	80-120			
Cadmium	136.4	1.00	5.00	ug/L	125.0		109	80-120			
Chromium	211.0	2.00	10.0	ug/L	200.0		106	80-120			
Copper	270.0	4.00	10.0	ug/L	250.0		108	80-120			
Lead	274.4	1.50	5.00	ug/L	250.0		110	80-120			
Nickel	518.7	3.00	10.0	ug/L	500.0		104	80-120			
Selenium	258.1	3.00	10.0	ug/L	250.0		103	80-120			
Silver	263.5	1.00	10.0	ug/L	250.0		105	80-120			
Thallium	257.9	3.00	8.00	ug/L	250.0		103	80-120			
Zinc	520.9	5.00	20.0	ug/L	500.0		104	80-120			
Matrix Spike (5F19005-MS1)			**Source: 1506117-07**		Prepared: 06/19/2015 Analyzed: 06/22/2015						
Antimony	252.5	5.00	10.0	ug/L	250.0	ND	101	80-120			
Arsenic	253.9	3.00	10.0	ug/L	250.0	3.841	100	80-120			
Beryllium	49.73	1.00	5.00	ug/L	50.00	ND	99.5	80-120			
Cadmium	135.5	1.00	5.00	ug/L	125.0	ND	108	80-120			

Metals (Dissolved) by ICP - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F19005											
Matrix Spike (5F19005-MS1)		**Source: 1506117-07**			Prepared: 06/19/2015 Analyzed: 06/22/2015						
Chromium	200.8	2.00	10.0	ug/L	200.0	ND	100	80-120			
Copper	259.9	4.00	10.0	ug/L	250.0	ND	104	80-120			
Lead	269.0	1.50	5.00	ug/L	250.0	4.767	106	80-120			
Nickel	512.4	3.00	10.0	ug/L	500.0	ND	102	80-120			
Selenium	255.9	3.00	10.0	ug/L	250.0	ND	102	80-120			
Silver	254.5	1.00	10.0	ug/L	250.0	ND	102	80-120			
Thallium	245.1	3.00	8.00	ug/L	250.0	ND	98.0	80-120			
Zinc	528.7	5.00	20.0	ug/L	500.0	ND	106	80-120			
Matrix Spike Dup (5F19005-MSD1)		**Source: 1506117-07**			Prepared: 06/19/2015 Analyzed: 06/22/2015						
Antimony	252.4	5.00	10.0	ug/L	250.0	ND	101	80-120	0.0277	20	
Arsenic	252.5	3.00	10.0	ug/L	250.0	3.841	99.5	80-120	0.557	20	
Beryllium	49.90	1.00	5.00	ug/L	50.00	ND	99.8	80-120	0.325	20	
Cadmium	134.9	1.00	5.00	ug/L	125.0	ND	108	80-120	0.451	20	
Chromium	198.3	2.00	10.0	ug/L	200.0	ND	99.2	80-120	1.25	20	
Copper	254.4	4.00	10.0	ug/L	250.0	ND	102	80-120	2.13	20	
Lead	267.5	1.50	5.00	ug/L	250.0	4.767	105	80-120	0.563	20	
Nickel	509.2	3.00	10.0	ug/L	500.0	ND	102	80-120	0.625	20	
Selenium	254.9	3.00	10.0	ug/L	250.0	ND	102	80-120	0.392	20	
Silver	250.9	1.00	10.0	ug/L	250.0	ND	100	80-120	1.43	20	
Thallium	246.6	3.00	8.00	ug/L	250.0	ND	98.6	80-120	0.606	20	
Zinc	525.5	5.00	20.0	ug/L	500.0	ND	105	80-120	0.611	20	

Mercury (Dissolved) by CVAA - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F09023											
Blank (5F09023-BLK1)				Prepared & Analyzed: 06/18/2015							
Mercury	ND	0.0800	0.200	ug/L							U
LCS (5F09023-BS1)				Prepared & Analyzed: 06/18/2015							
Mercury	1.981	0.0800	0.200	ug/L	2.000		99.1	80-120			
Matrix Spike (5F09023-MS3)		**Source: 1506117-07**		Prepared & Analyzed: 06/18/2015							
Mercury	1.559	0.0800	0.200	ug/L	2.000	ND	78.0	80-120			*
Matrix Spike Dup (5F09023-MSD3)		**Source: 1506117-07**		Prepared & Analyzed: 06/18/2015							
Mercury	1.527	0.0800	0.200	ug/L	2.000	ND	76.3	80-120	2.09	20	*

Metals (Total) by ICP - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F16727											
Blank (5F16727-BLK1)	Prepared: 06/16/2015 Analyzed: 06/18/2015										
Antimony	ND	1.00	2.00	mg/Kg wet							U
Arsenic	ND	0.600	2.00	mg/Kg wet							U
Beryllium	ND	0.200	1.00	mg/Kg wet							U
Cadmium	ND	0.200	1.00	mg/Kg wet							U
Chromium	ND	0.400	2.00	mg/Kg wet							U
Copper	ND	0.800	2.00	mg/Kg wet							U
Lead	ND	0.300	1.00	mg/Kg wet							U
Nickel	ND	0.600	2.00	mg/Kg wet							U
Selenium	ND	0.600	2.00	mg/Kg wet							U
Silver	ND	0.200	2.00	mg/Kg wet							U
Thallium	ND	0.600	1.60	mg/Kg wet							U
Zinc	ND	1.00	4.00	mg/Kg wet							U
LCS (5F16727-BS1)	Prepared: 06/16/2015 Analyzed: 06/18/2015										
Antimony	51.14	1.00	2.00	mg/Kg wet	50.00		102	80-120			
Arsenic	49.17	0.600	2.00	mg/Kg wet	50.00		98.3	80-120			
Beryllium	10.25	0.200	1.00	mg/Kg wet	10.00		103	80-120			
Cadmium	26.18	0.200	1.00	mg/Kg wet	25.00		105	80-120			
Chromium	41.56	0.400	2.00	mg/Kg wet	40.00		104	80-120			
Copper	50.95	0.800	2.00	mg/Kg wet	50.00		102	80-120			
Lead	50.39	0.300	1.00	mg/Kg wet	50.00		101	80-120			
Nickel	100.8	0.600	2.00	mg/Kg wet	100.0		101	80-120			
Selenium	49.94	0.600	2.00	mg/Kg wet	50.00		99.9	80-120			
Silver	50.71	0.200	2.00	mg/Kg wet	50.00		101	80-120			
Thallium	51.09	0.600	1.60	mg/Kg wet	50.00		102	80-120			
Zinc	101.7	1.00	4.00	mg/Kg wet	100.0		102	80-120			

Mercury by CVAA - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15934											
Blank (5F15934-BLK1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	ND	0.0130	0.0330	mg/Kg wet							U
LCS (5F15934-BS1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	0.3156	0.0130	0.0330	mg/Kg wet	0.3333		94.7	80-120			
Batch 5F15935											
Blank (5F15935-BLK1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	ND	0.0130	0.0330	mg/Kg wet							U
LCS (5F15935-BS1)					Prepared: 06/15/2015 Analyzed: 06/17/2015						
Mercury	0.3638	0.0130	0.0330	mg/Kg wet	0.3333		109	80-120			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
Blank (5F15917-BLK1)				Prepared & Analyzed: 06/15/2015							
Acetone	ND	2.50	10.0	ug/L							U
Benzene	ND	0.250	1.00	ug/L							U
Bromodichloromethane	ND	0.250	1.00	ug/L							U
Bromoform	ND	0.250	1.00	ug/L							U
Bromomethane	ND	0.500	2.00	ug/L							U
2-Butanone	ND	2.50	10.0	ug/L							U
Carbon disulfide	ND	0.250	1.00	ug/L							U
Carbon tetrachloride	ND	0.250	1.00	ug/L							U
Chlorobenzene	ND	0.250	1.00	ug/L							U
Chloroethane	ND	0.500	2.00	ug/L							U
Chloroform	ND	0.250	1.00	ug/L							U
Chloromethane	ND	0.250	1.00	ug/L							U
Cyclohexane	ND	0.250	1.00	ug/L							U
Dibromochloromethane	ND	0.250	1.00	ug/L							U
1,2-Dibromo-3-chloropropane	ND	0.500	2.00	ug/L							U
1,2-Dibromoethane (EDB)	ND	0.250	1.00	ug/L							U
1,2-Dichlorobenzene	ND	0.250	1.00	ug/L							U
1,3-Dichlorobenzene	ND	0.250	1.00	ug/L							U
1,4-Dichlorobenzene	ND	0.250	1.00	ug/L							U
Dichlorodifluoromethane	ND	0.500	2.00	ug/L							U
1,1-Dichloroethane	ND	0.250	1.00	ug/L							U
1,2-Dichloroethane	ND	0.250	1.00	ug/L							U
1,1-Dichloroethene	ND	0.250	1.00	ug/L							U
cis-1,2-Dichloroethene	ND	0.250	1.00	ug/L							U
trans-1,2-Dichloroethene	ND	0.250	1.00	ug/L							U
1,2-Dichloropropane	ND	0.250	1.00	ug/L							U
cis-1,3-Dichloropropene	ND	0.250	1.00	ug/L							U
trans-1,3-Dichloropropene	ND	0.250	1.00	ug/L							U
Ethylbenzene	ND	0.250	1.00	ug/L							U
2-Hexanone	ND	1.25	5.00	ug/L							U

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
Blank (5F15917-BLK1)				Prepared & Analyzed: 06/15/2015							
Isopropylbenzene	ND	0.250	1.00	ug/L							U
Methylene chloride	ND	0.500	2.00	ug/L							U
Methyl Acetate	ND	0.500	2.00	ug/L							U
Methylcyclohexane	ND	0.250	1.00	ug/L							QUX
4-Methyl-2-pentanone	ND	1.25	5.00	ug/L							U
Methyl t-Butyl Ether	ND	0.250	1.00	ug/L							U
Styrene	ND	0.250	1.00	ug/L							U
1,1,2,2-Tetrachloroethane	ND	0.250	1.00	ug/L							U
Tetrachloroethene	ND	0.250	1.00	ug/L							U
Toluene	ND	0.250	1.00	ug/L							U
1,2,4-Trichlorobenzene	ND	0.250	1.00	ug/L							U
1,1,2-Trichloroethane	ND	0.250	1.00	ug/L							U
1,1,1-Trichloroethane	ND	0.250	1.00	ug/L							U
Trichloroethene	ND	0.250	1.00	ug/L							U
Trichlorofluoromethane	ND	0.500	2.00	ug/L							U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.500	2.00	ug/L							U
Vinyl chloride	ND	0.250	1.00	ug/L							U
m,p-Xylene	ND	0.500	2.00	ug/L							U
o-Xylene	ND	0.250	1.00	ug/L							U
Surrogate: Bromofluorobenzene	*29.92*			*ug/L*	*30.00*		*99.7*	*75-120*			
Surrogate: Dibromofluoromethane	*28.89*			*ug/L*	*30.00*		*96.3*	*85-115*			
Surrogate: 1,2-Dichloroethane-d4	*29.89*			*ug/L*	*30.00*		*99.6*	*70-120*			
Surrogate: Toluene-d8	*30.75*			*ug/L*	*30.00*		*102*	*85-120*			
LCS (5F15917-BS1)				Prepared & Analyzed: 06/15/2015							
Acetone	98.3	2.50	10.0	ug/L	100.0		98.3	40-140			
Benzene	49.6	0.250	1.00	ug/L	50.00		99.2	80-120			
Bromodichloromethane	48.3	0.250	1.00	ug/L	50.00		96.6	75-120			
Bromoform	45.6	0.250	1.00	ug/L	50.00		91.2	70-130			
Bromomethane	45.2	0.500	2.00	ug/L	50.00		90.4	30-145			
2-Butanone	85.3	2.50	10.0	ug/L	100.0		85.3	30-150			
Carbon disulfide	55.3	0.250	1.00	ug/L	50.00		111	35-160			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
LCS (5F15917-BS1)				Prepared & Analyzed: 06/15/2015							
Carbon tetrachloride	46.0	0.250	1.00	ug/L	50.00		92.1	65-140			
Chlorobenzene	51.6	0.250	1.00	ug/L	50.00		103	80-120			
Chloroethane	45.4	0.500	2.00	ug/L	50.00		90.7	60-135			
Chloroform	42.1	0.250	1.00	ug/L	50.00		84.1	65-135			
Chloromethane	45.2	0.250	1.00	ug/L	50.00		90.3	40-125			
Cyclohexane	54.3	0.250	1.00	ug/L	50.00		109	60-130			
Dibromochloromethane	55.5	0.250	1.00	ug/L	50.00		111	60-135			
1,2-Dibromo-3-chloropropane	43.0	0.500	2.00	ug/L	50.00		85.9	50-130			
1,2-Dibromoethane (EDB)	51.2	0.250	1.00	ug/L	50.00		102	80-120			
1,2-Dichlorobenzene	50.1	0.250	1.00	ug/L	50.00		100	70-120			
1,3-Dichlorobenzene	50.6	0.250	1.00	ug/L	50.00		101	75-125			
1,4-Dichlorobenzene	49.5	0.250	1.00	ug/L	50.00		99.1	75-125			
Dichlorodifluoromethane	44.7	0.500	2.00	ug/L	50.00		89.4	30-155			
1,1-Dichloroethane	45.5	0.250	1.00	ug/L	50.00		90.9	70-135			
1,2-Dichloroethane	42.6	0.250	1.00	ug/L	50.00		85.1	70-130			
1,1-Dichloroethene	47.3	0.250	1.00	ug/L	50.00		94.5	70-130			
cis-1,2-Dichloroethene	50.2	0.250	1.00	ug/L	50.00		100	70-125			
trans-1,2-Dichloroethene	48.6	0.250	1.00	ug/L	50.00		97.3	60-140			
1,2-Dichloropropane	49.8	0.250	1.00	ug/L	50.00		99.5	75-125			
cis-1,3-Dichloropropene	53.5	0.250	1.00	ug/L	50.00		107	70-130			
trans-1,3-Dichloropropene	49.9	0.250	1.00	ug/L	50.00		99.9	55-140			
Ethylbenzene	52.9	0.250	1.00	ug/L	50.00		106	75-125			
2-Hexanone	97.6	1.25	5.00	ug/L	100.0		97.6	55-130			
Isopropylbenzene	55.3	0.250	1.00	ug/L	50.00		111	75-125			
Methylene chloride	49.6	0.500	2.00	ug/L	50.00		99.1	55-140			
Methyl Acetate	40.2	0.500	2.00	ug/L	50.00		80.5	55-150			
Methylcyclohexane	62.9	0.250	1.00	ug/L	50.00		126	60-125			*X
4-Methyl-2-pentanone	86.0	1.25	5.00	ug/L	100.0		86.0	60-135			
Methyl t-Butyl Ether	46.7	0.250	1.00	ug/L	50.00		93.4	65-125			
Styrene	56.5	0.250	1.00	ug/L	50.00		113	65-135			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
LCS (5F15917-BS1)					Prepared & Analyzed: 06/15/2015						
1,1,2,2-Tetrachloroethane	43.2	0.250	1.00	ug/L	50.00		86.5	65-130			
Tetrachloroethene	57.2	0.250	1.00	ug/L	50.00		114	45-150			
Toluene	53.4	0.250	1.00	ug/L	50.00		107	75-120			
1,2,4-Trichlorobenzene	53.3	0.250	1.00	ug/L	50.00		107	65-135			
1,1,2-Trichloroethane	51.1	0.250	1.00	ug/L	50.00		102	75-125			
1,1,1-Trichloroethane	43.2	0.250	1.00	ug/L	50.00		86.4	65-130			
Trichloroethene	48.2	0.250	1.00	ug/L	50.00		96.4	70-125			
Trichlorofluoromethane	41.2	0.500	2.00	ug/L	50.00		82.3	60-145			
1,1,2-Trichloro-1,2,2-trifluoroethane	53.3	0.500	2.00	ug/L	50.00		107	60-130			
Vinyl chloride	52.6	0.250	1.00	ug/L	50.00		105	50-145			
m,p-Xylene	107	0.500	2.00	ug/L	100.0		107	75-130			
o-Xylene	49.5	0.250	1.00	ug/L	50.00		99.1	80-120			
Surrogate: Bromofluorobenzene	*30.50*			*ug/L*	*30.00*		*102*	*75-120*			
Surrogate: Dibromofluoromethane	*28.47*			*ug/L*	*30.00*		*94.9*	*85-115*			
Surrogate: 1,2-Dichloroethane-d4	*29.87*			*ug/L*	*30.00*		*99.6*	*70-120*			
Surrogate: Toluene-d8	*31.12*			*ug/L*	*30.00*		*104*	*85-120*			
Matrix Spike (5F15917-MS2)		**Source: 1506117-07**			Prepared & Analyzed: 06/15/2015						
Acetone	223	5.00	20.0	ug/L	200.0	31.4	95.7	40-140			D
Benzene	106	0.500	2.00	ug/L	100.0	ND	106	80-120			D
Bromodichloromethane	99.9	0.500	2.00	ug/L	100.0	ND	99.9	75-120			D
Bromoform	98.4	0.500	2.00	ug/L	100.0	ND	98.4	70-130			D
Bromomethane	96.3	1.00	4.00	ug/L	100.0	ND	96.3	30-145			D
2-Butanone	175	5.00	20.0	ug/L	200.0	ND	87.5	30-150			D
Carbon disulfide	108	0.500	2.00	ug/L	100.0	ND	108	35-160			D
Carbon tetrachloride	107	0.500	2.00	ug/L	100.0	ND	107	65-140			D
Chlorobenzene	110	0.500	2.00	ug/L	100.0	ND	110	80-120			D
Chloroethane	107	1.00	4.00	ug/L	100.0	ND	107	60-135			D
Chloroform	95.9	0.500	2.00	ug/L	100.0	ND	95.9	65-135			D
Chloromethane	93.8	0.500	2.00	ug/L	100.0	ND	93.8	40-125			D
Cyclohexane	116	0.500	2.00	ug/L	100.0	ND	116	60-130			D
Dibromochloromethane	112	0.500	2.00	ug/L	100.0	ND	112	60-135			D

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
Matrix Spike (5F15917-MS2)		**Source: 1506117-07**			Prepared & Analyzed: 06/15/2015						
1,2-Dibromo-3-chloropropane	94.9	1.00	4.00	ug/L	100.0	ND	94.9	50-130			D
1,2-Dibromoethane (EDB)	104	0.500	2.00	ug/L	100.0	ND	104	80-120			D
1,2-Dichlorobenzene	108	0.500	2.00	ug/L	100.0	ND	108	70-120			D
1,3-Dichlorobenzene	110	0.500	2.00	ug/L	100.0	ND	110	75-125			D
1,4-Dichlorobenzene	107	0.500	2.00	ug/L	100.0	ND	107	75-125			D
Dichlorodifluoromethane	83.9	1.00	4.00	ug/L	100.0	ND	83.9	30-155			D
1,1-Dichloroethane	101	0.500	2.00	ug/L	100.0	ND	101	70-135			D
1,2-Dichloroethane	96.4	0.500	2.00	ug/L	100.0	ND	96.4	70-130			D
1,1-Dichloroethene	104	0.500	2.00	ug/L	100.0	ND	104	70-130			D
cis-1,2-Dichloroethene	107	0.500	2.00	ug/L	100.0	ND	107	70-125			D
trans-1,2-Dichloroethene	104	0.500	2.00	ug/L	100.0	ND	104	60-140			D
1,2-Dichloropropane	105	0.500	2.00	ug/L	100.0	ND	105	75-125			D
cis-1,3-Dichloropropene	104	0.500	2.00	ug/L	100.0	ND	104	70-130			D
trans-1,3-Dichloropropene	104	0.500	2.00	ug/L	100.0	ND	104	55-140			D
Ethylbenzene	109	0.500	2.00	ug/L	100.0	ND	109	75-125			D
2-Hexanone	209	2.50	10.0	ug/L	200.0	ND	104	55-130			D
Isopropylbenzene	119	0.500	2.00	ug/L	100.0	ND	119	75-125			D
Methylene chloride	103	1.00	4.00	ug/L	100.0	ND	103	55-140			D
Methyl Acetate	94.4	1.00	4.00	ug/L	100.0	ND	94.4	55-150			D
Methylcyclohexane	126	0.500	2.00	ug/L	100.0	ND	126	60-125			*DQX
4-Methyl-2-pentanone	198	2.50	10.0	ug/L	200.0	ND	99.0	60-135			D
Methyl t-Butyl Ether	100	0.500	2.00	ug/L	100.0	ND	100	65-125			D
Styrene	114	0.500	2.00	ug/L	100.0	ND	114	65-135			D
1,1,2,2-Tetrachloroethane	92.7	0.500	2.00	ug/L	100.0	ND	92.7	65-130			D
Tetrachloroethene	121	0.500	2.00	ug/L	100.0	ND	121	45-150			D
Toluene	109	0.500	2.00	ug/L	100.0	ND	109	75-120			D
1,2,4-Trichlorobenzene	113	0.500	2.00	ug/L	100.0	ND	113	65-135			D
1,1,2-Trichloroethane	103	0.500	2.00	ug/L	100.0	ND	103	75-125			D
1,1,1-Trichloroethane	99.2	0.500	2.00	ug/L	100.0	ND	99.2	65-130			D
Trichloroethene	103	0.500	2.00	ug/L	100.0	ND	103	70-125			D

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
Matrix Spike (5F15917-MS2)		**Source: 1506117-07**			Prepared & Analyzed: 06/15/2015						
Trichlorofluoromethane	93.5	1.00	4.00	ug/L	100.0	ND	93.5	60-145			D
1,1,2-Trichloro-1,2,2-trifluoroethane	106	1.00	4.00	ug/L	100.0	ND	106	60-130			D
Vinyl chloride	118	0.500	2.00	ug/L	100.0	ND	118	50-145			D
m,p-Xylene	224	1.00	4.00	ug/L	200.0	ND	112	75-130			D
o-Xylene	108	0.500	2.00	ug/L	100.0	ND	108	80-120			D
Surrogate: Bromofluorobenzene	*30.72*			*ug/L*	*30.00*		*102*	*75-120*			
Surrogate: Dibromofluoromethane	*29.30*			*ug/L*	*30.00*		*97.7*	*85-115*			
Surrogate: 1,2-Dichloroethane-d4	*29.29*			*ug/L*	*30.00*		*97.6*	*70-120*			
Surrogate: Toluene-d8	*30.41*			*ug/L*	*30.00*		*101*	*85-120*			
Matrix Spike Dup (5F15917-MSD2)		**Source: 1506117-07**			Prepared & Analyzed: 06/15/2015						
Acetone	213	5.00	20.0	ug/L	200.0	31.4	91.0	40-140	4.25	30	D
Benzene	108	0.500	2.00	ug/L	100.0	ND	108	80-120	2.20	30	D
Bromodichloromethane	99.1	0.500	2.00	ug/L	100.0	ND	99.1	75-120	0.828	30	D
Bromoform	97.3	0.500	2.00	ug/L	100.0	ND	97.3	70-130	1.17	30	D
Bromomethane	89.3	1.00	4.00	ug/L	100.0	ND	89.3	30-145	7.55	30	D
2-Butanone	165	5.00	20.0	ug/L	200.0	ND	82.5	30-150	5.80	30	D
Carbon disulfide	109	0.500	2.00	ug/L	100.0	ND	109	35-160	1.40	30	D
Carbon tetrachloride	108	0.500	2.00	ug/L	100.0	ND	108	65-140	0.882	30	D
Chlorobenzene	114	0.500	2.00	ug/L	100.0	ND	114	80-120	3.43	30	D
Chloroethane	109	1.00	4.00	ug/L	100.0	ND	109	60-135	1.91	30	D
Chloroform	97.3	0.500	2.00	ug/L	100.0	ND	97.3	65-135	1.48	30	D
Chloromethane	94.0	0.500	2.00	ug/L	100.0	ND	94.0	40-125	0.248	30	D
Cyclohexane	110	0.500	2.00	ug/L	100.0	ND	110	60-130	5.17	30	D
Dibromochloromethane	114	0.500	2.00	ug/L	100.0	ND	114	60-135	1.96	30	D
1,2-Dibromo-3-chloropropane	90.4	1.00	4.00	ug/L	100.0	ND	90.4	50-130	4.79	30	D
1,2-Dibromoethane (EDB)	103	0.500	2.00	ug/L	100.0	ND	103	80-120	0.369	30	D
1,2-Dichlorobenzene	108	0.500	2.00	ug/L	100.0	ND	108	70-120	0.441	30	D
1,3-Dichlorobenzene	110	0.500	2.00	ug/L	100.0	ND	110	75-125	0.137	30	D
1,4-Dichlorobenzene	108	0.500	2.00	ug/L	100.0	ND	108	75-125	1.40	30	D
Dichlorodifluoromethane	73.5	1.00	4.00	ug/L	100.0	ND	73.5	30-155	13.3	30	D
1,1-Dichloroethane	104	0.500	2.00	ug/L	100.0	ND	104	70-135	2.40	30	D

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
Matrix Spike Dup (5F15917-MSD2)		**Source: 1506117-07**			Prepared & Analyzed: 06/15/2015						
1,2-Dichloroethane	96.0	0.500	2.00	ug/L	100.0	ND	96.0	70-130	0.382	30	D
1,1-Dichloroethene	105	0.500	2.00	ug/L	100.0	ND	105	70-130	0.979	30	D
cis-1,2-Dichloroethene	109	0.500	2.00	ug/L	100.0	ND	109	70-125	1.87	30	D
trans-1,2-Dichloroethene	106	0.500	2.00	ug/L	100.0	ND	106	60-140	2.42	30	D
1,2-Dichloropropane	105	0.500	2.00	ug/L	100.0	ND	105	75-125	0.109	30	D
cis-1,3-Dichloropropene	103	0.500	2.00	ug/L	100.0	ND	103	70-130	0.407	30	D
trans-1,3-Dichloropropene	103	0.500	2.00	ug/L	100.0	ND	103	55-140	0.918	30	D
Ethylbenzene	113	0.500	2.00	ug/L	100.0	ND	113	75-125	2.98	30	D
2-Hexanone	196	2.50	10.0	ug/L	200.0	ND	98.2	55-130	6.11	30	D
Isopropylbenzene	122	0.500	2.00	ug/L	100.0	ND	122	75-125	2.51	30	D
Methylene chloride	103	1.00	4.00	ug/L	100.0	ND	103	55-140	0.538	30	D
Methyl Acetate	90.1	1.00	4.00	ug/L	100.0	ND	90.1	55-150	4.65	30	D
Methylcyclohexane	119	0.500	2.00	ug/L	100.0	ND	119	60-125	5.79	30	DQX
4-Methyl-2-pentanone	186	2.50	10.0	ug/L	200.0	ND	92.8	60-135	6.42	30	D
Methyl t-Butyl Ether	97.3	0.500	2.00	ug/L	100.0	ND	97.3	65-125	3.07	30	D
Styrene	119	0.500	2.00	ug/L	100.0	ND	119	65-135	3.86	30	D
1,1,2,2-Tetrachloroethane	90.4	0.500	2.00	ug/L	100.0	ND	90.4	65-130	2.52	30	D
Tetrachloroethene	124	0.500	2.00	ug/L	100.0	ND	124	45-150	2.33	30	D
Toluene	111	0.500	2.00	ug/L	100.0	ND	111	75-120	2.24	30	D
1,2,4-Trichlorobenzene	107	0.500	2.00	ug/L	100.0	ND	107	65-135	5.45	30	D
1,1,2-Trichloroethane	104	0.500	2.00	ug/L	100.0	ND	104	75-125	0.459	30	D
1,1,1-Trichloroethane	99.5	0.500	2.00	ug/L	100.0	ND	99.5	65-130	0.309	30	D
Trichloroethene	103	0.500	2.00	ug/L	100.0	ND	103	70-125	0.271	30	D
Trichlorofluoromethane	88.2	1.00	4.00	ug/L	100.0	ND	88.2	60-145	5.91	30	D
1,1,2-Trichloro-1,2,2-trifluoroethane	99.5	1.00	4.00	ug/L	100.0	ND	99.5	60-130	6.56	30	D
Vinyl chloride	114	0.500	2.00	ug/L	100.0	ND	114	50-145	3.06	30	D
m,p-Xylene	229	1.00	4.00	ug/L	200.0	ND	115	75-130	2.07	30	D
o-Xylene	109	0.500	2.00	ug/L	100.0	ND	109	80-120	1.60	30	D
Surrogate: Bromofluorobenzene	*30.61*			*ug/L*	*30.00*		*102*	*75-120*			
Surrogate: Dibromofluoromethane	*29.53*			*ug/L*	*30.00*		*98.4*	*85-115*			
Surrogate: 1,2-Dichloroethane-d4	*29.84*			*ug/L*	*30.00*		*99.5*	*70-120*			

Volatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F15917											
Matrix Spike Dup (5F15917-MSD2)		**Source: 1506117-07**		Prepared & Analyzed: 06/15/2015							
Surrogate: Toluene-d8	*30.54*			*ug/L*	*30.00*		*102*	*85-120*			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
Blank (5F18004-BLK1)				Prepared: 06/22/2015 Analyzed: 06/25/2015							
Acenaphthene	ND	83.3	333	ug/Kg wet							U
Acenaphthylene	ND	83.3	333	ug/Kg wet							U
Acetophenone	ND	83.3	333	ug/Kg wet							U
Anthracene	ND	83.3	333	ug/Kg wet							U
Atrazine	ND	83.3	333	ug/Kg wet							U
Benzaldehyde	ND	83.3	333	ug/Kg wet							U
Benzo(a)anthracene	ND	83.3	333	ug/Kg wet							U
Benzo(a)pyrene	ND	83.3	333	ug/Kg wet							U
Benzo(b)fluoranthene	ND	83.3	333	ug/Kg wet							U
Benzo(g,h,i)perylene	ND	83.3	333	ug/Kg wet							U
Benzo(k)fluoranthene	ND	83.3	333	ug/Kg wet							U
1,1-Biphenyl	ND	83.3	333	ug/Kg wet							U
4-Bromophenyl-phenylether	ND	83.3	333	ug/Kg wet							U
Butylbenzylphthalate	ND	83.3	333	ug/Kg wet							U
Caprolactam	ND	83.3	333	ug/Kg wet							U
Carbazole	ND	83.3	333	ug/Kg wet							U
4-Chloro-3-methylphenol	ND	83.3	333	ug/Kg wet							U
4-Chloroaniline	ND	83.3	333	ug/Kg wet							U
Bis(2-chloroethoxy)methane	ND	83.3	333	ug/Kg wet							U
Bis(2-chloroethyl)ether	ND	83.3	333	ug/Kg wet							U
2,2'-Oxybis-1-chloropropane	ND	83.3	333	ug/Kg wet							U
2-Chloronaphthalene	ND	83.3	333	ug/Kg wet							U
2-Chlorophenol	ND	83.3	333	ug/Kg wet							U
4-Chlorophenyl phenyl ether	ND	83.3	333	ug/Kg wet							U
Chrysene	ND	83.3	333	ug/Kg wet							U
Dibenz(a,h)anthracene	ND	83.3	333	ug/Kg wet							U
Dibenzofuran	ND	83.3	333	ug/Kg wet							U
Di-n-butylphthalate	ND	83.3	333	ug/Kg wet							U
3,3'-Dichlorobenzidine	ND	83.3	333	ug/Kg wet							U
2,4-Dichlorophenol	ND	83.3	333	ug/Kg wet							U

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
Blank (5F18004-BLK1)				Prepared: 06/22/2015 Analyzed: 06/25/2015							
Diethylphthalate	ND	83.3	333	ug/Kg wet							U
2,4-Dimethylphenol	ND	333	1330	ug/Kg wet							U
Dimethyl phthalate	ND	83.3	333	ug/Kg wet							U
4,6-Dinitro-2-methylphenol	ND	833	3330	ug/Kg wet							U
2,4-Dinitrophenol	ND	833	3330	ug/Kg wet							U
2,4-Dinitrotoluene	ND	83.3	333	ug/Kg wet							U
2,6-Dinitrotoluene	ND	83.3	333	ug/Kg wet							U
Di-n-octylphthalate	ND	83.3	333	ug/Kg wet							U
Bis(2-ethylhexyl)phthalate	ND	83.3	333	ug/Kg wet							U
Fluoranthene	ND	83.3	333	ug/Kg wet							U
Fluorene	ND	83.3	333	ug/Kg wet							U
Hexachlorobenzene	ND	83.3	333	ug/Kg wet							U
Hexachlorobutadiene	ND	83.3	333	ug/Kg wet							U
Hexachlorocyclopentadiene	ND	83.3	333	ug/Kg wet							U
Hexachloroethane	ND	83.3	333	ug/Kg wet							U
Indeno(1,2,3-cd)pyrene	ND	83.3	333	ug/Kg wet							U
Isophorone	ND	83.3	333	ug/Kg wet							U
2-Methylnaphthalene	ND	83.3	333	ug/Kg wet							U
2-Methylphenol	ND	83.3	333	ug/Kg wet							U
4-Methylphenol	ND	83.3	333	ug/Kg wet							U
Naphthalene	ND	83.3	333	ug/Kg wet							U
4-Nitroaniline	ND	333	1330	ug/Kg wet							U
3-Nitroaniline	ND	333	1330	ug/Kg wet							U
2-Nitroaniline	ND	333	1330	ug/Kg wet							U
Nitrobenzene	ND	83.3	333	ug/Kg wet							U
4-Nitrophenol	ND	333	1330	ug/Kg wet							U
2-Nitrophenol	ND	83.3	333	ug/Kg wet							U
N-Nitrosodiphenylamine	ND	83.3	333	ug/Kg wet							U
N-Nitroso-di-n-propylamine	ND	83.3	333	ug/Kg wet							U
Pentachlorophenol	ND	333	1330	ug/Kg wet							U

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
Blank (5F18004-BLK1)				Prepared: 06/22/2015 Analyzed: 06/25/2015							
Phenanthrene	ND	83.3	333	ug/Kg wet							U
Phenol	ND	83.3	333	ug/Kg wet							U
Pyrene	ND	83.3	333	ug/Kg wet							U
2,4,6-Trichlorophenol	ND	83.3	333	ug/Kg wet							U
2,4,5-Trichlorophenol	ND	83.3	333	ug/Kg wet							U
Surrogate: 2-Fluorobiphenyl	*2648*			*ug/Kg wet*	*3333*		*79.4*	*45-105*			
Surrogate: 2-Fluorophenol	*4956*			*ug/Kg wet*	*6667*		*74.3*	*35-105*			
Surrogate: Nitrobenzene-d5	*2385*			*ug/Kg wet*	*3333*		*71.6*	*35-100*			
Surrogate: Phenol-d6	*5151*			*ug/Kg wet*	*6667*		*77.3*	*40-100*			
Surrogate: Terphenyl-d14	*2559*			*ug/Kg wet*	*3333*		*76.8*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*5719*			*ug/Kg wet*	*6667*		*85.8*	*35-125*			*X*
LCS (5F18004-BS1)				Prepared: 06/22/2015 Analyzed: 06/25/2015							
Acenaphthene	3173	83.3	333	ug/Kg wet	3333		95.2	45-110			
Acenaphthylene	3073	83.3	333	ug/Kg wet	3333		92.2	45-105			
Acetophenone	2492	83.3	333	ug/Kg wet	3333		74.8	35-110			
Anthracene	3056	83.3	333	ug/Kg wet	3333		91.7	55-105			
Atrazine	2643	83.3	333	ug/Kg wet	3333		79.3	55-105			
Benzaldehyde	2232	83.3	333	ug/Kg wet	3333		66.9	10-160			
Benzo(a)anthracene	3087	83.3	333	ug/Kg wet	3333		92.6	50-110			
Benzo(a)pyrene	2982	83.3	333	ug/Kg wet	3333		89.5	50-110			
Benzo(b)fluoranthene	3046	83.3	333	ug/Kg wet	3333		91.4	45-115			
Benzo(g,h,i)perylene	3258	83.3	333	ug/Kg wet	3333		97.7	40-125			
Benzo(k)fluoranthene	3098	83.3	333	ug/Kg wet	3333		92.9	45-125			
1,1-Biphenyl	2613	83.3	333	ug/Kg wet	3333		78.4	45-110			
4-Bromophenyl-phenylether	3363	83.3	333	ug/Kg wet	3333		101	45-115			
Butylbenzylphthalate	2985	83.3	333	ug/Kg wet	3333		89.5	50-125			
Caprolactam	2672	83.3	333	ug/Kg wet	3333		80.2	50-110			
Carbazole	2978	83.3	333	ug/Kg wet	3333		89.3	45-115			
4-Chloro-3-methylphenol	6379	83.3	333	ug/Kg wet	6667		95.7	45-115			
4-Chloroaniline	2398	83.3	333	ug/Kg wet	3333		71.9	10-95			
Bis(2-chloroethoxy)methane	3019	83.3	333	ug/Kg wet	3333		90.6	45-110			
Bis(2-chloroethyl)ether	2821	83.3	333	ug/Kg wet	3333		84.6	40-105			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
LCS (5F18004-BS1)					Prepared: 06/22/2015 Analyzed: 06/25/2015						
2,2'-Oxybis-1-chloropropane	2580	83.3	333	ug/Kg wet	3333		77.4	20-115			
2-Chloronaphthalene	3027	83.3	333	ug/Kg wet	3333		90.8	45-105			
2-Chlorophenol	5854	83.3	333	ug/Kg wet	6667		87.8	45-105			
4-Chlorophenyl phenyl ether	3294	83.3	333	ug/Kg wet	3333		98.8	45-110			
Chrysene	3142	83.3	333	ug/Kg wet	3333		94.3	55-110			
Dibenz(a,h)anthracene	3317	83.3	333	ug/Kg wet	3333		99.5	40-125			
Dibenzofuran	3146	83.3	333	ug/Kg wet	3333		94.4	50-105			
Di-n-butylphthalate	3101	83.3	333	ug/Kg wet	3333		93.0	55-110			
3,3'-Dichlorobenzidine	2600	83.3	333	ug/Kg wet	3333		78.0	19-130			
2,4-Dichlorophenol	6198	83.3	333	ug/Kg wet	6667		93.0	45-110			
Diethylphthalate	3240	83.3	333	ug/Kg wet	3333		97.2	50-115			
2,4-Dimethylphenol	6424	333	1330	ug/Kg wet	6667		96.4	30-105			
Dimethyl phthalate	3312	83.3	333	ug/Kg wet	3333		99.4	50-110			
4,6-Dinitro-2-methylphenol	6433	833	3330	ug/Kg wet	6667		96.5	30-135			
2,4-Dinitrophenol	6030	833	3330	ug/Kg wet	6667		90.5	15-130			
2,4-Dinitrotoluene	3303	83.3	333	ug/Kg wet	3333		99.1	50-115			
2,6-Dinitrotoluene	3063	83.3	333	ug/Kg wet	3333		91.9	50-110			
Di-n-octylphthalate	2797	83.3	333	ug/Kg wet	3333		83.9	40-130			
Bis(2-ethylhexyl)phthalate	2974	83.3	333	ug/Kg wet	3333		89.2	45-125			
Fluoranthene	3064	83.3	333	ug/Kg wet	3333		91.9	55-115			
Fluorene	3121	83.3	333	ug/Kg wet	3333		93.6	50-110			
Hexachlorobenzene	3218	83.3	333	ug/Kg wet	3333		96.5	45-120			
Hexachlorobutadiene	3396	83.3	333	ug/Kg wet	3333		102	30-110			
Hexachlorocyclopentadiene	2078	83.3	333	ug/Kg wet	3333		62.3	10-110			
Hexachloroethane	2617	83.3	333	ug/Kg wet	3333		78.5	35-110			
Indeno(1,2,3-cd)pyrene	2950	83.3	333	ug/Kg wet	3333		88.5	40-120			
Isophorone	2534	83.3	333	ug/Kg wet	3333		76.0	45-110			
2-Methylnaphthalene	2799	83.3	333	ug/Kg wet	3333		84.0	40-110			
2-Methylphenol	5878	83.3	333	ug/Kg wet	6667		88.2	40-105			
4-Methylphenol	6104	83.3	333	ug/Kg wet	6667		91.6	40-105			

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
LCS (5F18004-BS1)					Prepared: 06/22/2015 Analyzed: 06/25/2015						
Naphthalene	2877	83.3	333	ug/Kg wet	3333		86.3	40-105			
4-Nitroaniline	3115	333	1330	ug/Kg wet	3333		93.5	35-115			
3-Nitroaniline	2581	333	1330	ug/Kg wet	3333		77.4	25-110			
2-Nitroaniline	2977	333	1330	ug/Kg wet	3333		89.3	45-120			
Nitrobenzene	2723	83.3	333	ug/Kg wet	3333		81.7	40-115			
4-Nitrophenol	6396	333	1330	ug/Kg wet	6667		95.9	15-140			
2-Nitrophenol	5969	83.3	333	ug/Kg wet	6667		89.5	40-110			
N-Nitrosodiphenylamine	2622	83.3	333	ug/Kg wet	3333		78.7	50-115			
N-Nitroso-di-n-propylamine	2908	83.3	333	ug/Kg wet	3333		87.2	40-115			
Pentachlorophenol	6867	333	1330	ug/Kg wet	6667		103	25-120			E
Phenanthrene	3069	83.3	333	ug/Kg wet	3333		92.1	50-110			
Phenol	5398	83.3	333	ug/Kg wet	6667		81.0	40-100			
Pyrene	2784	83.3	333	ug/Kg wet	3333		83.5	45-125			
2,4,6-Trichlorophenol	6698	83.3	333	ug/Kg wet	6667		100	45-110			E
2,4,5-Trichlorophenol	6862	83.3	333	ug/Kg wet	6667		103	50-110			E
Surrogate: 2-Fluorobiphenyl	*2623*			*ug/Kg wet*	*3333*		*78.7*	*45-105*			
Surrogate: 2-Fluorophenol	*4706*			*ug/Kg wet*	*6667*		*70.6*	*35-105*			
Surrogate: Nitrobenzene-d5	*2385*			*ug/Kg wet*	*3333*		*71.6*	*35-100*			
Surrogate: Phenol-d6	*4837*			*ug/Kg wet*	*6667*		*72.6*	*40-100*			
Surrogate: Terphenyl-d14	*2415*			*ug/Kg wet*	*3333*		*72.5*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*6229*			*ug/Kg wet*	*6667*		*93.4*	*35-125*			*X*
LCS Dup (5F18004-BSD1)					Prepared: 06/22/2015 Analyzed: 06/25/2015						
Acenaphthene	2971	83.3	333	ug/Kg wet	3333		89.1	45-110	6.55	30	
Acenaphthylene	2876	83.3	333	ug/Kg wet	3333		86.3	45-105	6.61	30	
Acetophenone	2321	83.3	333	ug/Kg wet	3333		69.6	35-110	7.10	30	
Anthracene	2801	83.3	333	ug/Kg wet	3333		84.0	55-105	8.71	30	
Atrazine	2455	83.3	333	ug/Kg wet	3333		73.7	55-105	7.35	30	
Benzaldehyde	2060	83.3	333	ug/Kg wet	3333		61.8	10-160	8.01	30	
Benzo(a)anthracene	2877	83.3	333	ug/Kg wet	3333		86.3	50-110	7.04	30	
Benzo(a)pyrene	2810	83.3	333	ug/Kg wet	3333		84.3	50-110	5.94	30	
Benzo(b)fluoranthene	2857	83.3	333	ug/Kg wet	3333		85.7	45-115	6.39	30	
Benzo(g,h,i)perylene	3039	83.3	333	ug/Kg wet	3333		91.2	40-125	6.94	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
LCS Dup (5F18004-BSD1)					Prepared: 06/22/2015 Analyzed: 06/25/2015						
Benzo(k)fluoranthene	2888	83.3	333	ug/Kg wet	3333		86.6	45-125	7.02	30	
1,1-Biphenyl	2432	83.3	333	ug/Kg wet	3333		72.9	45-110	7.18	30	
4-Bromophenyl-phenylether	3097	83.3	333	ug/Kg wet	3333		92.9	45-115	8.25	30	
Butylbenzylphthalate	2740	83.3	333	ug/Kg wet	3333		82.2	50-125	8.54	30	
Caprolactam	2419	83.3	333	ug/Kg wet	3333		72.6	50-110	9.92	30	
Carbazole	2725	83.3	333	ug/Kg wet	3333		81.8	45-115	8.87	30	
4-Chloro-3-methylphenol	5838	83.3	333	ug/Kg wet	6667		87.6	45-115	8.84	30	
4-Chloroaniline	2319	83.3	333	ug/Kg wet	3333		69.6	10-95	3.35	30	
Bis(2-chloroethoxy)methane	2714	83.3	333	ug/Kg wet	3333		81.4	45-110	10.6	30	
Bis(2-chloroethyl)ether	2560	83.3	333	ug/Kg wet	3333		76.8	40-105	9.69	30	
2,2'-Oxybis-1-chloropropane	2368	83.3	333	ug/Kg wet	3333		71.0	20-115	8.57	30	
2-Chloronaphthalene	2811	83.3	333	ug/Kg wet	3333		84.3	45-105	7.39	30	
2-Chlorophenol	5404	83.3	333	ug/Kg wet	6667		81.1	45-105	7.99	30	
4-Chlorophenyl phenyl ether	3005	83.3	333	ug/Kg wet	3333		90.2	45-110	9.16	30	
Chrysene	2968	83.3	333	ug/Kg wet	3333		89.0	55-110	5.70	30	
Dibenz(a,h)anthracene	3108	83.3	333	ug/Kg wet	3333		93.2	40-125	6.51	30	
Dibenzofuran	2925	83.3	333	ug/Kg wet	3333		87.8	50-105	7.27	30	
Di-n-butylphthalate	2885	83.3	333	ug/Kg wet	3333		86.5	55-110	7.23	30	
3,3'-Dichlorobenzidine	2584	83.3	333	ug/Kg wet	3333		77.5	19-130	0.623	30	
2,4-Dichlorophenol	5662	83.3	333	ug/Kg wet	6667		84.9	45-110	9.03	30	
Diethylphthalate	3073	83.3	333	ug/Kg wet	3333		92.2	50-115	5.27	30	
2,4-Dimethylphenol	5864	333	1330	ug/Kg wet	6667		88.0	30-105	9.11	30	
Dimethyl phthalate	3083	83.3	333	ug/Kg wet	3333		92.5	50-110	7.17	30	
4,6-Dinitro-2-methylphenol	6047	833	3330	ug/Kg wet	6667		90.7	30-135	6.18	30	
2,4-Dinitrophenol	5660	833	3330	ug/Kg wet	6667		84.9	15-130	6.33	30	
2,4-Dinitrotoluene	3068	83.3	333	ug/Kg wet	3333		92.0	50-115	7.38	30	
2,6-Dinitrotoluene	2920	83.3	333	ug/Kg wet	3333		87.6	50-110	4.79	30	
Di-n-octylphthalate	2605	83.3	333	ug/Kg wet	3333		78.2	40-130	7.10	30	
Bis(2-ethylhexyl)phthalate	2782	83.3	333	ug/Kg wet	3333		83.5	45-125	6.68	30	
Fluoranthene	2857	83.3	333	ug/Kg wet	3333		85.7	55-115	6.97	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Empirical Laboratories, LLC

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5F18004											
LCS Dup (5F18004-BSD1)					Prepared: 06/22/2015 Analyzed: 06/25/2015						
Fluorene	2934	83.3	333	ug/Kg wet	3333		88.0	50-110	6.18	30	
Hexachlorobenzene	3000	83.3	333	ug/Kg wet	3333		90.0	45-120	7.02	30	
Hexachlorobutadiene	3045	83.3	333	ug/Kg wet	3333		91.3	30-110	10.9	30	
Hexachlorocyclopentadiene	1905	83.3	333	ug/Kg wet	3333		57.1	10-110	8.70	30	
Hexachloroethane	2409	83.3	333	ug/Kg wet	3333		72.3	35-110	8.30	30	
Indeno(1,2,3-cd)pyrene	2759	83.3	333	ug/Kg wet	3333		82.8	40-120	6.69	30	
Isophorone	2287	83.3	333	ug/Kg wet	3333		68.6	45-110	10.2	30	
2-Methylnaphthalene	2567	83.3	333	ug/Kg wet	3333		77.0	40-110	8.64	30	
2-Methylphenol	5518	83.3	333	ug/Kg wet	6667		82.8	40-105	6.33	30	
4-Methylphenol	5642	83.3	333	ug/Kg wet	6667		84.6	40-105	7.86	30	
Naphthalene	2622	83.3	333	ug/Kg wet	3333		78.7	40-105	9.27	30	
4-Nitroaniline	2882	333	1330	ug/Kg wet	3333		86.5	35-115	7.77	30	
3-Nitroaniline	2582	333	1330	ug/Kg wet	3333		77.5	25-110	0.0344	30	
2-Nitroaniline	2831	333	1330	ug/Kg wet	3333		84.9	45-120	5.05	30	
Nitrobenzene	2434	83.3	333	ug/Kg wet	3333		73.0	40-115	11.2	30	
4-Nitrophenol	5854	333	1330	ug/Kg wet	6667		87.8	15-140	8.86	30	
2-Nitrophenol	5457	83.3	333	ug/Kg wet	6667		81.8	40-110	8.97	30	
N-Nitrosodiphenylamine	2430	83.3	333	ug/Kg wet	3333		72.9	50-115	7.62	30	
N-Nitroso-di-n-propylamine	2725	83.3	333	ug/Kg wet	3333		81.8	40-115	6.48	30	
Pentachlorophenol	6394	333	1330	ug/Kg wet	6667		95.9	25-120	7.14	30	
Phenanthrene	2850	83.3	333	ug/Kg wet	3333		85.5	50-110	7.43	30	
Phenol	5005	83.3	333	ug/Kg wet	6667		75.1	40-100	7.56	30	
Pyrene	2593	83.3	333	ug/Kg wet	3333		77.8	45-125	7.08	30	
2,4,6-Trichlorophenol	6244	83.3	333	ug/Kg wet	6667		93.7	45-110	7.01	30	
2,4,5-Trichlorophenol	6523	83.3	333	ug/Kg wet	6667		97.8	50-110	5.07	30	
Surrogate: 2-Fluorobiphenyl	*2415*			*ug/Kg wet*	*3333*		*72.4*	*45-105*			
Surrogate: 2-Fluorophenol	*4383*			*ug/Kg wet*	*6667*		*65.7*	*35-105*			
Surrogate: Nitrobenzene-d5	*2144*			*ug/Kg wet*	*3333*		*64.3*	*35-100*			
Surrogate: Phenol-d6	*4489*			*ug/Kg wet*	*6667*		*67.3*	*40-100*			
Surrogate: Terphenyl-d14	*2253*			*ug/Kg wet*	*3333*		*67.6*	*30-125*			
Surrogate: 2,4,6-Tribromophenol	*5802*			*ug/Kg wet*	*6667*		*87.0*	*35-125*			*X*

Notes and Definitions

X	Indicates a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.
U	Analyte included in the analysis, but not detected
M	Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.
J	Detected but below the Reporting Limit/Limit of Quantitation; therefore, result is an estimated concentration (CLP J-Flag).
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
D	Data reported from a dilution
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

1506117

EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD

SHIP TO: 621 Mainstream Drive, Suite 270 ♦ Nashville, TN 37228 ♦ 877-345-1113 ♦ (fax) 866-417-0548

26595

Send Results to:	Send Invoice to:
Name Jim Hulbert	Name
Company EA	Company
Address 225 Schilling Circle	Address SAA
City Hunt Valley	City
State, Zip MD 21031	State, Zip
Phone 410-584-7000	Phone
Fax	Fax
E-mail jhulbert@eaest.com	E-mail
Project No./Name:	**Sampler's (Signature):**

Analysis Requirements:

SVOCs 8270D
PPL Metals (6010C 7471B)
VOCs 8260B
Dissolved Metals 6010C 7470A

Lab Use Only:

VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA
Cust. Seals Intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill #:

CAR #:

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	Comments	No. of Bottles	Lab Use Only Containers/Pres.
01	6/10/15 0900	SS-01-0-1	SO	*Sediment	1	
02	0915	SS-01-4-5			1	
03	0940	SS-04-0-1			1	
04	0945	SS-04-4-5			1	
05	0840	SS-05-0-1			1	
06	0845	SS-05-4-5			1	
07	1105	GW-03 MS/MSD	GW	MS/MSD	10	
08	1315	GW-04	GW		4	
09	-	DUP-GW-01	GW		3	
10	-	TB-01	W		2	

	Date/Time	Received By: (Signature)
Sample Kit Prep'd by: (Signature)		
Relinquished by: (Signature)	6/10/15 1530	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time	Received By: (Signature)
	6/11/15 900	Temperature 1.9

REMARKS:

Details:

Page 1 of 1

Cooler No. 1 of 1

Date Shipped 6/10/15

Shipped By CNM

Turnaround 10 days

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.

II. EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

Cooler Received/Opened On: 06/11/15 @0930

Work order# 1506167

1. Tracking # 2001 (last 4 digits, FedEx)

   Courier: FEDEX

2. Temperature of rep. sample or temp blank when opened: 1.9 °C + correction factor(-0.0) = 1.9 °C

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 2. front + back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

   I certify that I opened the cooler and answered questions 1-6 (initial/date) STO 6/11/15

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing material used? Bubble wrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13. a. Were VOA vials received? YES...NO...NA

    b. Was there observable headspace present in any VOA vial (>5mm-6mm)? YES...NO...NA

14. Was there a Trip Blank in this cooler (custody seals present/intact)? YES...NO...NA...Comments_____
    If multiple coolers, sequence #_____

    I certify that I unloaded the cooler and answered questions 7-14 (initial/date) TH 6/11/15

15. a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

    b. Did the bottle labels indicate that the correct preservatives were used? YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

    I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial/date) TH 6/11/15

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA If not, PM notified? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA If not, PM notified? YES...NO...NA

21. Were there Non-Conformance issues at login? YES...NO...NCR#_____

I certify that I entered this project into LIMS and answered questions 17-21 (initial/date) TH 6/11/15

I certify that I attached a label with the unique LIMS number to each container (initial/date) TH 6/11/15

III. EMPIRICAL LABORATORIES, LLC
DATA ENTRY VERIFICATION FORM – PROJECT MANAGEMENT

Workorder#: 1506117

	Verification Item	Yes	No	NA
1.	**Cooler Receipt Form Issues reviewed and communicated to client**	**X**		
2.	**Element/ Project Screen/items verified to match the COC/CRF:**			
a.	**Client/Project**	X		
b.	Comments requiring laboratory reminder?			X
c.	Client and/or Project Memo requiring laboratory reminder?			X
3.	**Receipt Screen items verified to match the COC/CRF:**			
a.	Received Date/Received By	X		
b.	Workorder Due Date	X		
c.	Package Due Date	X		
d.	TAT	X		
e.	SDG Identifier Populated	X		
4.	**Sample Information verified against COC for each sample:**			
a.	Name	X		
b.	QC Source	X		
c.	Matrix	X		
d.	Sample Type	X		
e.	Sampled Date/Time (Correct Time Zone)	X		
f.	Work Analyses/Versions	X		
g.	Sample Issues included in comments	X		
h.	Unpreserved VOA holding time set to 7 days	X		
5.	**Containers consistent with tests requested**	X		
6.	**Field data entered and matching COC, if applicable**			X
	I certify that I have performed a second check of the LIMS information against the COC to confirm accuracy (initial/date):	SMG 6/12/2015		

Empirical Laboratories, LLC
Certifications/Approvals
(Revised 04/22/2015)

DoD ELAP QSM5.0, Certificate Number L2226
- Aqueous
- Non-aqueous
- Expires: 11/30/2015

State of Florida, Department of Health – NELAP, Lab ID: E87646
- Clean Water Act
- RCRA/CERCLA
- Expires: 06/30/2015

State of Georgia, Environmental Protection Agency – NELAP, Self Certification
- Expires: 06/30/2015

State of Illinois, Environmental Protection Agency – NELAP, Certificate Number: 003464
- Groundwater
- Solid and Hazardous Waste
- Expires: 09/13/2015

Commonwealth of Kentucky, Energy and Environment Cabinet – WWLCP, Laboratory Number: 98017
- Wastewater
- Expires: 12/31/2015

Commonwealth of Kentucky, Department of Environmental Protection – UST, Certificate Number: 77
- Aqueous
- Non-aqueous
- Expires: 06/30/2015

State of New Jersey, Department of Environmental Protection – NELAP Primary, Lab ID: TN473
- Water Pollution
- Solid and Hazardous Waste
- Expires: 06/30/2015

State of North Carolina, Department of Environment and Natural Resources - Certificate Number: 643
- Aqueous
- Non-aqueous
- Expires: 12/31/2015

State of North Dakota, Department of Health – NELAP, Certificate No.: R-204
- Aqueous
- Non-aqueous
- Expires: 06/30/2015

Commonwealth of Pennsylvania, Department of Environmental Protection – NELAP, Lab ID: 68-05374
- Aqueous
- Non-aqueous
- Expires: 10/31/2015

State of Texas, Commission on Environmental Quality – NELAP, Certificate Number: T104704307-15-11
- Aqueous
- Non-aqueous
- Expires: 12/31/2015

State of Utah, Department of Health – NELAP, Certificate Number: TN0042014-6
- Aqueous
- Non-aqueous
- Expires: 07/31/2015

Commonwealth of Virginia, Department of General Services – NELAP, Certificate Number: 7700, Lab ID: 460243
- Aqueous
- Non-aqueous
- Expires: 12/14/2015

State of Washington, Department of Ecology – NELAP, Lab ID: C934-15
- Groundwater
- Solid and Hazardous Waste
- Expires: 03/18/2016

Chesapeake Labs, Inc. **Report To:** **113 High Street** **Salisbury MD 21801** **Fred Grozinger, Laboratory Director (410) 546-1318**	**EA Engineering** **225 Schilling Circle** **Suite 400** **Hunt Valley, MD 21031**	Report #: Reporting Date: Plant Name:	1506A-EAE June 18, 2015 EA Engineering

Test Report

Sample ID:	EA SW 01		Enterococci, MPN/100ml	*E. coli*, MPN/100ml
Collection		Method	Enterolert	Colilert
Discharge Point	SW 01	Result	1.0	1.0
Date	6/10/2015	Date Analyzed	6/10/2015	6/10/2015
Time	12:10 PM	Time Analyzed	3:20 PM	3:20 PM
By	Client	Analyst	CA	CA
		Reporting Limits	1	1
		Flag		

Sample ID:	EA SW 02		Enterococci, MPN/100ml	*E. coli*, MPN/100ml
Collection		Method	Enterolert	Colilert
Discharge Point	SW 02	Result	19.1	16.9
Date	6/10/2015	Date Analyzed	6/10/2015	6/10/2015
Time	11:58 AM	Time Analyzed	3:20 PM	3:20 PM
By	Client	Analyst	CA	CA
		Reporting Limits	1	1
		Flag		

Sample ID:	EA SW 03		Enterococci, MPN/100ml	*E. coli*, MPN/100ml
Collection		Method	Enterolert	Colilert
Discharge Point	SW 03	Result	103.1	261.3
Date	6/10/2015	Date Analyzed	6/10/2015	6/10/2015
Time	11:50 AM	Time Analyzed	3:20 PM	3:20 PM
By	Client	Analyst	CA	CA
		Reporting Limits	1	1
		Flag		

Comments: Results valid only when an approval signature is present

EPA Lab #: MD00031

Approved by Fred Grozinger, Lab Director

Standard Acronyms/Flags: ND=Not Detected at Reporting Limit; MS=Matrix Spike; D=Duplicate, B=Blank, S=Lab Fortified Blank

Chain of Custody Record

Water Testing Labs of Maryland, Inc.
Chesapeake Labs, Inc.
113 High Street Salisbury MD 21801
Phone: 410-546-1318 Fax: 410-546-5028 www.wtlmd.com

CLIENT NAME:

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
EA Engineering
225 Schilling Circle
Ste 400
Hunt Valley MD 21031

ATTENTION: CC:

REQUESTED COMPLETION DATE: PO#:

PROJECT NAME/STATE:
jhulbert@eaest.com

PROJECT #:

ANALYSIS REQUESTED

DATE	TIME	MATRIX CODE *	COMP	GRAB	Discharge Point	# of CONTAINERS	CONTAINER:	PRESERV.:	PRESERV. pH:	Enterococci	E. Coli MPN
							P	P			
							6	6			
6/9/15	12:10	SW	☐	☒	SW 01	2				✓	✓
	11:58		☐	☒	SW 02	2				✓	✓
↓	11:50	↓	☐	☒	SW 03	2				✓	✓
			☐	☐							
			☐	☐							
			☐	☐							
			☐	☐							
			☐	☐							
			☐	☐							

LAB SAMPLE ID ↓

CONTAINER TYPE	PRESERVATION
P – PLASTIC	1 – HCl, 4°
A – AMBER GLASS	2 – H_2SO_4, 4°
G – CLEAR GLASS	3 – HNO_3, 4°
V – VOA VIAL	4 – NaOH, 4°
S – STERILE	5 – NaOH/ZnAc, 4°
O – OTHER	6 – $Na_2S_2O_3$, 4°
	7 – 4°
	8 – none

*MATRIX CODES

DW – DRINKING WATER	S – SOIL
WW – WASTE WATER	SL – SLUDGE
GW – GROUND WATER	SD – SOLID
ST – STORM WATER	A – AIR
SW – SURFACE WATER	L – LIQUID
	P – PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY:
DATE/TIME: See Above
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

FOR LAB USE ONLY
Comments:
Lab#:

RECEIVED BY LAB: Courtney Peterson
DATE/TIME: 6/10/15 2:50
SAMPLE SHIPPED VIA: UPS FED-EX COURIER (CLIENT/OTHER) FIELD SERVICES
In-house location:

pH upon lab arrival: SU
Ice: (Yes) or No
Temperature:C
Custody Seal: Intact Broken/Missing
COOLER #

Please use Black Ink to complete form