UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 11 2016

REPLY TO THE ATTENTION OF:

Ms. Cheryl R. Hiatt
Project Manager
Global Environmental Compliance & Sustainability
General Motors, LLC
30400 Mound Road – Mail Code 480-109-MB1
Warren, Michigan 48092

RE: Stormwater Lagoon Sediment Remediation: AOI 10 Interim Measure
General Motors (GM) Castings, Engines, and Transmissions
105 GM Drive, Bedford, Indiana
IND 006 036 099

Dear Ms. Hiatt:

On July 6, 2016, you submitted a Basis of Design Report (Conceptual Design Report), Stormwater Lagoon Sediment Remediation: Area of Interest (AOI) 10 Interim Measure for the Resource Conservation and Recovery Act (RCRA) Corrective Action (CA) project at the GM Castings, Engines, and Transmissions (CET; formerly Powertrain) Bedford Facility (Facility) at 105 GM Drive Bedford, Indiana.

The Conceptual Design Report addresses the removal of approximately 7,600 cubic yards of PCB contaminated sediments (PCB Remediation Wastes) from within the AOI 10 Stormwater Lagoon for off-site disposal. GM is conducting the PCB cleanup and corrective action measures under an EPA RCRA Administrative Order on Consent effective on August 4, 2014.

EPA provided comments to the GM on the Conceptual Design Report on July 12, 2016. GM responded to EPA's comments on July 19, 2016. EPA is approving GM's cleanup and disposal of these PCB Remediation Wastes under 40 CFR § 761.61(c) with the following conditions:

1) GM will revise the Conceptual Design Report to incorporate revisions noted in the July 19, 2016 response to comments and resubmit the document as a 95% Design Report.

2) Phase II and III dredged sediments will be disposed of off-site as ≥ 50 mg/kg PCB remediation waste in accordance 40 CFR § 761.61(a)(5)(i)(B)(*2*)(*iii*) as noted in Section 4.2 of the Conceptual Design Report.

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3) Phase I dredged sediments will be managed for disposal of off-site in accordance with 40 CFR §§ 761.61(a)(5)(i)(B)(*2*)(*ii*) or (*iii*) as noted in GM's July 19, 2016 Response to Comment #1.

GM is responsible for ensuring continued compliance with this approval, all applicable provisions of TSCA and the federal PCB regulations. Under the Toxic Substances Control Act (TSCA) delegation 12-5, the Regional Administrator has redelegated his authority to the Director of the Land and Chemicals Division. Any departure from the conditions set forth in this letter must receive prior written authorization from the Remediation and Reuse Branch of the Land and Chemicals Division.

This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by GM are authorized to conduct the activities set forth in the Conceptual Design Report. GM is responsible for ensuring that it has selected transporters and disposal facilities that are authorized to conduct these activities in accordance with all applicable federal, state, and local statues and regulations. This letter does not relieve GM from compliance with any other federal, state or local regulation and does not preclude EPA from initiating any enforcement action, including an action seeking civil penalties for any violation of federal regulations.

If you have any questions regarding this matter, please contact me or Peter Ramanauskas of my staff at (312) 886-7890.

Sincerely,

Margaret M. Guerriero
Director
Land and Chemicals Division

cc: Mr. Gerald O'Callaghan, IDEM

Global Environmental
Compliance & Sustainability

July 6, 2016 Reference No. 013968

Mr. Peter Ramanauskas
Project Manager for IND 0060306099
Waste, Pesticide and Toxins Division
U.S. EPA Region 5
77 West Jackson Blvd. (DW-8J)
Chicago, IL 60604-3590

Dear Mr. Ramanauskas:

Re: RCRA Corrective Action Administrative Order on Consent (AOC)
Basis of Design Report (Conceptual Design Report)
Stormwater Lagoon Sediment Remediation: AOI 10 Interim Measure
GM CET – Bedford Facility, IND 006036099, Docket No. RCRA 05-2014-0011
Bedford, Indiana

Please find enclosed the "Basis of Design Report (Conceptual Design Report), Stormwater Lagoon Sediment Remediation: AOI 10 Interim Measure" for the Resource Conservation and Recovery Act (RCRA) Corrective Action (CA) project at the GM Castings, Engines, and Transmissions (CET; formerly Powertrain) Bedford Facility (Facility) at 105 GM Drive Bedford, Indiana, and select surrounding properties (Site).

Through submission of this report, GM is requesting that U.S. EPA consider project-specific approval for the use of Heritage Environmental Services LLC Roachdale landfill facility for the disposal of Toxic Substances Control Act (TSCA) sediment from the stormwater pond, consistent with other soil and sediment remediation historically conducted at the GM CET Bedford Facility for the RCRA Corrective Action.

Should you have any questions regarding this document, please do not hesitate to contact me at (313) 510-4328.

Yours truly,

General Motors LLC

Cheryl R. Hiatt

Cheryl R. Hiatt
Project Manager

RH/jp/161
Encl.

c.c.: See Attached Distribution List

• 30400 Mound Road • Mail Code 480-109-MB1 • Warren, MI 48092 • FAX (586)947-8068 •

GM Bedford Distribution List

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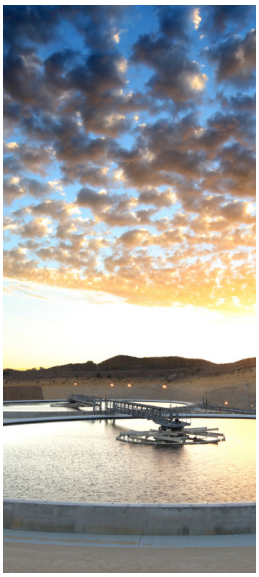
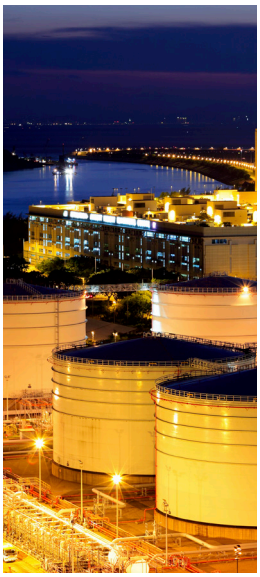
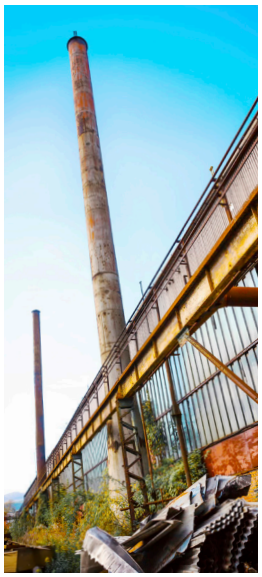
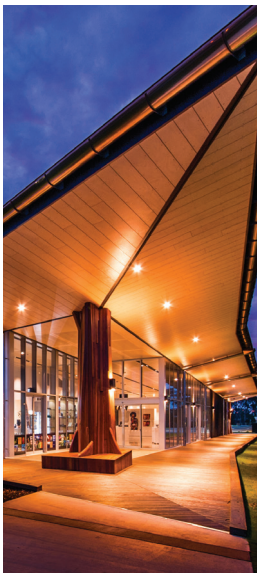

Basis of Design Report (Conceptual Design Report) Stormwater Lagoon Sediment Remediation: AOI 10 Interim Measure

GM CET Bedford Facility
105 GM Drive
Bedford, Indiana
EPA ID# IND006036099

General Motors LLC

651 Colby Drive Waterloo Ontario N2V 1C2
013968 | Report No 395 | July 4 2016

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Terms and Acronyms

AOI	Area of Interest
AOI 10	Existing Stormwater Lagoon and Outfall 003
AMSL	Above Mean Sea Level
CET	Castings, Engines, and Transmissions
CRA	Conestoga-Rovers & Associates, Inc.
cy	cubic yards
DGPS	Differential Global Positioning System
Facility	GM CET Bedford Facility
FML	flexible membrane liner
ft	feet or foot
GHD	GHD Services, Inc. (formerly Conestoga-Rovers & Associates, Inc.)
GM	General Motors, LLC
GNSS	Global Navigation Satellite System
gpm	gallons per minute
GPS	Global Positioning System
GWTP	Groundwater Treatment Plant
HDPE	high-density polyethylene
mg/kg	milligrams per kilogram
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
PCB	Polychlorinated Biphenyl
Pond	Stormwater Pond
psi	pounds per square inch
RCRA	Resource Conservation and Recovery Act
Report	Basis of Design Report (30% Design Report)
RFI	RCRA Facility Investigation
RTK	Real Time Kinematic
SES	Sevenson Environmental Services, Inc.
Site	GM CET Bedford Facility
SSC	Site Source Control
SWTP	On-Facility Site Source Control and Storm Water Treatment Plant
TCLP	Toxic Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
TSS	total suspended solids
µg/L	microgram per liter
U.S. EPA	United States Environmental Protection Agency

1. Introduction

GHD Services, Inc. (GHD[1]) has prepared this Basis of Design Report (30% Design Report) (Report) to present the conceptual design for remediation of sediments currently deposited on the bottom of the Stormwater Pond (Pond) located at the General Motors, LLC (GM) Castings, Engines, and Transmissions (CET) Bedford Facility (Facility) located in Bedford, Indiana (Site). The location of the Stormwater Pond and the Site location are presented on Figure 1.1.

Proposed remediation of the Stormwater Pond will include removal, dewatering, and disposal of approximately 7,600 cubic yards (cy) of wet sediment and installation of a flexible membrane liner (FML).

This Report includes project background collected through the implementation of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI), conceptual design objectives, sediment characterization data, discussion of dredging alternatives, conceptual design, and recommendations to be implemented for the detailed design. The Detailed Design Report will be prepared to present the design components, drawings, and specifications for the work to be implemented, and will be utilized to complete competitive subcontractor procurement for a design-build (owner-build) approach to be utilized during the construction of the project (July to November 2016).

2. Background

2.1 Stormwater Pond Description and Use

The Stormwater Pond [also referred to as the Retention Basin/Stormwater Lagoon for the National Pollutant Discharge Elimination System (NPDES) Permit (IN0003573) dated March 26, 2015] is located within the Facility on the east side of GM Drive (East Plant Area), as shown on Figure 1.1. The Pond was designated as Area of Interest (AOI) 10 – Existing Stormwater Lagoon and Outfall 003 (AOI 10) during development of the Current Conditions Report (CRA, May 25, 2001) and throughout implementation of the RFI.

The Pond was constructed in 1981 and is approximately 600 feet (ft) long by 250 ft wide by 20 ft deep, with 3:1 interior slopes (CRA, May 25, 2001). A 2-ft thick clay liner was constructed on the bottom and sides of the Pond with rip rap protection provided from elevation 674 to 680 ft AMSL (Hatch, 2003). The base was constructed at an elevation of approximately 660 ft AMSL, based on design drawings prepared by The Chester Engineers (Hatch, 2003). There is no record of sediment removal from the base of the Pond since its construction in 1981.

The Pond has been designed and used as a detention basin, with the stormwater being periodically withdrawn, treated, and used to supplement process waters for manufacturing. Historical impacts on the storm sewer system from production sources located on the west side of GM Drive (West

[1] On July 2, 2014, GHD and Conestoga-Rovers & Associates (CRA) merged. On July 1, 2015, CRA changed its name to GHD. Where work was conducted prior to July 1, 2015, CRA is identified as the entity performing the work.

Plant Area) and fill materials around the Facility have resulted in impacted sediment deposits being conveyed through the stormwater sewers and subsequently into the Pond.

Currently, the Pond receives stormwater run-off from manufacturing portions of the Facility (West Plant Area), which are routed via two storm sewer systems across GM Drive and collected in the Pond, as well as receiving minor discharges of groundwater when treatment systems were not working and from backwash flows.

The Pond does not receive any overland flow from the East Plant Area Final Cover System (Cover System) itself, as the Cover System was designed with perimeter ditches around the Pond to collect all surface water and direct it around the Pond. Stormwater from non-operational portions of the Facility located on the east side of GM Drive (i.e., water running on top of the clean East Plant Area Final Cover System or subsurface drainage above the liner within the Cover System) discharges to Tributary 3 or Bailey's Branch Creek of the Pleasant Run Watershed after draining through a series of swales and detention basins within the Cover System, which are designed to minimize the peak flow to downstream receivers during precipitation events.

Water pumped from the Pond is currently treated for Polychlorinated Biphenyls (PCBs) through the on-Facility Storm Water Treatment Plant (SWTP), with treated water discharged to Outfall 003 under the Facility's existing NPDES permit. The existing NPDES permit requires that the Pond detain a 24-hour, 15-year return storm event and discharge concentrations of PCBs at less than 0.3 micrograms per liter (µg/L) (<0.3 µg/L).

The SWTP was originally constructed in 2005 for groundwater treatment (but has been used for stormwater treatment) and operates at rates of 1,000 to 1,500 gallons per minute (gpm) (maximum of 2,000 gpm), where 1,500 gpm equates to 2.16 million gallons per day, or about a 1-inch rainfall. As part of SWTP operations, the Pond is also used for temporary storage of backwash flows from the mixed media vessels and carbon.

As part of the construction of the East Plant Area Final Cover System, the emergency overflow for the Pond was re-configured to overtop the surrounding access road at 679.15 ft AMSL. The access road around the perimeter of the Pond has an approximate elevation of 680 ft AMSL. A stormwater drainage ditch is located along the outside of the perimeter access road to contain stormwater runoff from closed soil placement areas beneath the Cover System to the west, north, and east of the Pond (i.e., stormwater from the Cover System is not directed to the Pond). The emergency overflow provides an effective freeboard of 2.15 feet above the previously controlled maximum storage elevation at 677 ft AMSL. Appendix A presents historical Pond drawings prepared by The Chester Engineers.

Water from the Pond also serves as a backup supply of fire water reserve for the Facility (the main source of fire protection is City of Bedford water). The Pond is equipped with a 4,000 gpm diesel fire service pump to provide the backup water supply. According to the 2003 Hatch report, GM's Fire Protection Services Group specified that the minimum volume of water required for the secondary fire water reserve is 2 hours of pumping capacity at 4,000 gpm, or a total of 480,000 gallons (Hatch, 2003). This would be equivalent to approximately 0.75 ft of water near the base of the Pond.

The Pond also serves as a basin for settling solids from the stormwater. The sediments are fine grained (e.g., silt and clay) particles that are potentially impacted with PCBs. Significant flows during storms are discharged to the Pond via the storm sewer systems originating at the West Plant Area. These large flows re-suspend impacted fine particles within the settled sediment that negatively

impact treatment (i.e., fines are difficult to remove) in the SWTP. Removal of the impacted fines from the Pond would benefit the operation of the SWTP, aiding with compliance with the NPDES permit.

2.2 Available Storage Volume

As discussed above, the Pond is believed to have had an installed clay base set at approximately 660 ft AMSL and a historical outlet elevation of 677 ft AMSL through an overflow pipe (subsequently abandoned) that discharges through the diesel pump house . According to values in Hatch, 2003, the historical gross storage volume of the Pond in this 17-foot interval is approximately 1.8 million cubic feet, or 13.45 million gallons. Pump intakes for the diesel pump house are set at an elevation of 662 ft AMSL, which means that the operational bottom of the Pond is at that elevation (leaving the bottom two feet for sediment accumulation). As this sedimentation layer occupies a volume of 1.15 million gallons, the available operational storage volume is effectively 12.3 million gallons. In addition, GM operates the Pond to maintain a minimum of 3.5 feet of water above the pump intakes for fire suppression (5.5 ft in total), reserving the 662.0 to 665.5 ft AMSL interval for that purpose (retaining an additional 2.27 million gallons). The Pond storage volumes are summarized in Table 2.1 below:

Table 2.1 Stormwater Pond Volumes

Interval	Top Elevation (ft AMSL)	Bottom Elevation (ft AMSL)	Usage	Control (maximum elevation)	Interval Volume (gallons)	Sum in SWD to Interval Top (gallons)
1	662	660	Sedimentation	Pump intake	1,149,695	1,149,695
2	665.5	662	Fire water storage	GM operation	2,272,986	3,422,681
3	677	665.5	Stormwater storage	Discharge pipe invert	10,024,826	13,447,507
4	680	677	Freeboard	Access Road elevation	4,000,000	17,447,507

Note:
Values from Hatch, 2003
The water volume value from 677 to 680 ft AMSL is estimated.

The estimated wet sediment volume is approximately 7,600 cy (1,535,000 gallons). Excavation of the sediment from the Pond would re-instate this water volume for operational firefighting capacity. The wet sediment in situ thickness measurements from the April 2016 sampling program ranged from 0.2 ft to 4.0 ft thick, with an average thickness of 2.2 ft (refer to Section 3).

It is noted that the elevation for the base of the Pond during the April 2016 pre-design sampling program was estimated to be between 657 and 658 ft AMSL, which is 2 to 3 ft lower than discussed in the historical Pond information (estimated at 660 ft AMSL) presented in the 2003 Hatch report. Prior to commencing wet dredging activities, the top of sediment elevation will be verified by the dredging contractor to determine if material should be removed below the design bottom elevation of 660 ft AMSL, potentially due to the base design information being incorrect (since no as-built information is available). Regardless of the elevation discrepancy, the sediment at the bottom of the Pond has been confirmed to have PCB contamination and so is part of the removal. In addition, the existing firm clay beneath the sediment will provide a better base for installation of a new FML over the base of the Pond.

2.3 Stormwater Flow Volumes

Stormwater runoff to the Pond was modeled by CRA in 2004 to provide an estimate of runoff quantities, based on a return-period analysis involving single and multi-day events using a stormwater model developed for the Facility area. It should be noted that several changes have been made to the stormwater management system at the Facility since that time, including installation of the gravity sewer in 2005 that discharges to the southwest corner of the Pond.

The following summarizes the 100-year storm probability (1 in 100 chance of occurring in a calendar year):

- 24-hour storm = 6.4 inches
- 3-day storm = 8.6 inches
- 7-day storm = 10.9 inches

A 3-day storm event occurred in May, 2004.

Table 2.2 provides an estimate of the Pond storage using the 10,025,000 gallons of storage referenced in Table 2.1 above, as available for operational storage of stormwater (below 677 ft AMSL).

Table 2.2 Stormwater Model Flow Volumes Draining to Bedford Stormwater Basin

Design Storm Return	Design Storm Duration	Precipitation (in)	Modeled Runoff (cubic feet)	Modeled Runoff (gallons)	Balance in Basin (gallons)
2 year return	24 hours	3.20	822,899	6,156,107	3,868,893
5 year return	24 hours	3.90	1,026,326	7,677,945	2,347,055
10 year return	24 hours	4.45	1,186,162	8,873,678	1,151,322
25 year return	24 hours	5.45	1,476,773	11,047,739	- 1,022,739
50 year return	24 hours	6.30	1,723,792	12,895,687	- 2,870,687
100 year return	24 hours	7.00	1,927,219	14,417,525	- 4,392,525
100 year return	3 days	8.62	2,398,009	17,939,505	- 7,914,505
100 year return	7 days	10.91	3,063,507	22,918,096	-12,893,096

Thus, the current operational storage volume of the Pond is equivalent to approximately 5 inches of precipitation over 24 hours (between 10 and 25-year return). As a result, all of the operational storage volume is required to be conservative for compliance with the NPDES permit, which requires the Pond to detain a 24-hour, 15-year return storm event.

At 679.15 ft AMSL (the revised overflow level after completion of the Cover System), the Pond could hold the 50-year storm event for a 24-hour period (approximately 6.3 inches).

2.3.1 Historical Sediment Volume Estimates

Estimates of the sediment accumulation above the clay liner have previously been completed by Hatch in 2003, Golder Associates in 2005, and CRA in 2008. The previous volume estimates ranged from approximately 2,700 cy to 6,500 cy.

2.3.2 Historical Sediment Chemical Concentrations

Additional sediment sampling activities were conducted in the Pond during the RFI in April 2002 and following an inspection of the storm sewer, which discharges to the southwest corner of the Pond, in May 2014.

The April 2002 RFI sampling event included collection of sediment samples from two locations in the Pond. Analytical results exhibited concentrations of 16.96 mg/kg and 25.8 J mg/kg total PCBs, respectively.

The May 2014 sampling event included collection of 16 soil/sediment samples from the Pond and nine soil samples from the southwest banks (around the stormwater inlet to the Pond). Analytical results exhibited concentrations ranging from 1.3 mg/kg to 280 mg/kg total PCBs.

Figure 2.1 presents the analytical results for the sediment and soil samples collected from the Pond. The results of these investigations were also presented in the RFI Report (GHD, September 30, 2015).

3. Pre-Design Studies

A new sediment investigation was recently conducted as part of Pre-Design studies in the Pond from April 5 to 9, 2016 in order to quantify the volume of sediment in the Pond and to characterize the sediment for waste disposal options. The investigation included collection of sediment cores at the base of the Pond and bank soil samples for waste characterization, collection of sediment cores for grain size analysis, and sediment depth measurements to determine the volume of sediment in the Pond. Bulk sediment samples were also collected for treatability studies by GHD and Sevenson Environmental Services, Inc. (Sevenson) to evaluate dewatering options for disposal.

3.1 Sediment and Soil PCB and Waste Characterization

Sediment cores were collected from April 5 to 9, 2016 by Normandeau Associates, Inc. (Normandeau) at 35 locations in the Pond (see Figure 3.1/Table 3.1). Material identified as liner clay in the cores was not analyzed. All sediment cores for PCB characterization were collected using a coring vessel outfitted with a Rossfelder® submersible vibracore unit and were advanced to refusal.

One composite sediment sample was collected across the entire core length unless a change in material was observed (e.g., consistency, density, color, or presence of oil) or the thickness was greater than 2 feet. In such cases, separate samples were collected of these differing sediment materials (e.g., 0 to 1 ft, 1 to 2 ft, etc.).

Sediment PCB Characterization

In total, 48 sediment samples were collected from 35 locations and submitted for analysis of PCBs. There were 7 locations (C3, C5, F4, F6, G3, I2, and I8) where separate samples of select core intervals were collected due to change in consistency. Analytical results exhibited concentrations ranging from 0.37 mg/kg to 1,000 mg/kg total PCBs (see Figure 3.1 and Table 3.2). No oil was observed in the sediment cores during sampling.

In one area where previous sampling indicated the presence of greater than or equal to 50 mg/kg total PCBs in sediments (southern portion of the Pond), sediments were assumed to be greater than 50 mg/kg total PCBs area for disposal purposes. As such, no additional sediment sampling was completed in this area during the 2016 sampling event. Based on the analytical results for samples collected, no further sampling for PCB analysis is required at this time.

Due to the wide range of in-situ PCB concentrations, and since the dredging process is a gross collection process, it is anticipated that the TSCA status of some of the removed sediment will be determined "as found" following dredging and dewatering. As a result, wet dredging will proceed in areas of less than 50 mg/kg PCBs first, as further discussed in Section 4.2.

Sediment Characterization for Hazardous Waste

Three sediment samples were collected for disposal toxic characteristic leaching procedure (TCLP) testing (W-1 and W-2 [grab samples] and W-3 [composite sample]) (see Table 3.3). The analytical results show that the sediment is non-hazardous.

Soil PCB Characterization

A total of 24 soil samples were collected for PCB analysis from the side slopes of the Pond. Shore samples were collected at approximately 2 ft above the shoreline (at the time of sampling) and bank samples at approximately 6 ft above the shore sample locations. Soil was collected from the upper 0 to 6 inches. Analytical results exhibited concentrations ranging from non-detect to 14 mg/kg total PCBs (see Figure 3.1 and Table 3.2).

Stratigraphic logs for sediment cores are presented in Appendix B. Daily field forms are presented in Appendix C. Photographs are presented in Appendix D. Analytical Reports are presented in Appendix E.

3.2 Sediment Volume

Sediment depth measurements were collected from 145 locations (5 locations were inaccessible) on April 9, 2016 by Normandeau. The procedure included using a rod with a survey tape to probe the bottom of the Pond and record the elevation of both the top and bottom of the sediment. All measurement locations were recorded using sub-meter DGPS and R8 GNSS RTK GPS (referenced to NAVD88 vertical datum).

The approximate total volume of wet sediment based on the sediment depth survey was determined to be 7,600 cy (approx. 9,272 tons based on 1.22 ton/cy). The average thickness of sediment in the Pond was approximately 2.2 ft. Table 3.1 presents the measured sediment thicknesses across the Pond, while. Figures 3.2 and 3.3 present a Site plan view and cross-sections, respectively, of the sediment distribution in the Pond.

Laboratory testing of the Pond sediment showed the collected material to be 48.31% dry solids, or approx. 4,450 tons of dry solids. However, filter pressing only results in partial water removal, with testing showing the resultant filter cake to be 65.22% dry solids. As such, it is anticipated that upon completion of wet dredging and dewatering, the approximate total volume of partially dried sediment requiring off-site disposal will be reduced to 6,850 tons (based on Sevenson's dewatering study). This represents a mass reduction of approximately 26%.

As part of the wet dredging operation, water will be removed along with the sediment. Based on Sevenson's experience, it is anticipated that the recovered sediment/water mixture will only contain 7% solids. Extrapolating from the calculated 4,450 tons of dry solids (if completed dewatered), the volume of water (filtrate) generated during filter press operations over 60 days would be approx. 13.7 million gallons. The generated filtrate would be continuously sent back to the Pond to assist in maintaining a constant water level during wet dredging operations (or treated with the Sevenson wastewater treatment plant/SWTP).

3.3 Sediment Treatability Study

3.3.1 Dewatering/Stabilization of Dredged Sediment

A solidification treatability study was conducted to evaluate the effectiveness of adding stabilization reagents to materials as a means of meeting the Paint Filter Liquid requirements at the landfill and ensuring that free liquids are not generated during the transportation process, rather than further dewatering materials at the Facility. Geotechnical testing results (e.g., grain size) are presented in Table 3.4. Limited bench scale testing was completed to evaluate the effectiveness of gravity dewatering, mechanical dredging and dewatering by filter-press, and stabilization to support this evaluation as part of the design process. The purpose of this evaluation was to provide the Detailed Design Team with the necessary information to develop an appropriate and cost-effective approach to material handling.

Bulk samples of sediment were collected to support bench-scale treatability testing of sediments. A composite sample of collected sediment was transported under chain-of-custody protocols to GHD's Treatability Testing Laboratory and Sevenson's office in Niagara Falls, NY.

Upon receipt, sediment was physically characterized to determine moisture content, grain size distribution, and organic content. Collected sediment was kept in sealed, refrigerated containers to maintain the as-received moisture content. Testing processes included gravity dewatering, mechanical dewatering by filter press, and solidification utilizing locally sourced pozzolanic reagents (e.g., lime, fly ash, cement kiln dust, and Portland cement). Dewatering tests were completed in triplicate. Five dosages of each solidification reagent were blended with the sediment. Solidification would be used to dewater the sediment during the final dry excavation following precipitation events to keep the construction crew active for productivity reasons.

Following dewatering or blending with the solidification reagent, each sample underwent Paint Filter Liquid testing (Method SW 846 9095B). The objective of the testing was to identify the most cost effective method(s) of making the sediment suitable for disposal at appropriately permitted off-Facility landfill sites (i.e., amended sediment will meet the Paint Filter Liquid test requirements and not generate free liquids during transport) at the lowest cost (e.g. keeping construction crews active vs. increases in disposal costs).

The temperature of the sediment mixtures were continuously monitored throughout the treatability study to determine if any generation of heat was observed due to reagent addition and possible off-gassing of organic vapors.

The initial results of the sediment characterization showed 47.6 percent moisture and 6.53 percent organic content. The treatability study found that mechanical filtration (using a filter press) was more effective for dewatering the sediment than gravity filtration, as gravity filtration only reduced the moisture content to 44.2 percent (down 3.4 percent) after six hours, while mechanical dewatering

via vacuum filtration (simulating filter press operation) reduced the moisture content to 34.6 percent (down 13.0 percent) in only 15 minutes. After seven days of testing, only three sample mixtures showed any increase in hardness, two percent lime and two and three percent Portland cement. The treatability study recommendations indicated that Portland cement was the preferred stabilizing agent, as lime caused heat generation (from 10°C to 20°C). Three percent Portland cement was found to be more effective than two percent Portland cement for solidifying the sediment due to the increased hardness (pocket penetrometer readings in excess of 1 pound per square inch [psi]); however, if the disposal facility does not have any minimum strength requirements, then solidifying with only two percent Portland cement may be acceptable.

The results of the testing are summarized in a GHD memorandum presented in Appendix F.1.

In addition to the treatability study performed by GHD, Sevenson has completed its own treatability study to determine the effort required for dredging and dewatering the sediment materials in the Pond. The results of the Sevenson testing were previously reviewed as part of the sediment volume discussion in Section 3.2. A table with the Sevenson testing results is presented in Appendix F.2

The GHD treatability studies concluded the sediment material is acceptable for landfilling without any reagent solidification (e.g. passes the Paint Filter Liquid test), although this does not account for the development of free water during trucking. However, as Sevenson has shown in their testing, dewatering the sediment would reduce the tonnage that requires landfill disposal by approximately 26% [from 9,272 wet tons to approximately 6,850 tons of filter cake (partially dried sediment)], and it would mitigate the likelihood of creating free liquid during transport.

3.3.2 Wastewater Waste Characterization

Concurrent with the completion of the sediment treatability testing, wastewater was generated in the Treatability Study laboratory when dewatering the sediment. This Site water was used to evaluate the treatment requirements for water collected during the proposed sediment remediation (solidification). Wastewater generated from mechanical dewatering of the sediments during the treatability study was collected and characterized by the project laboratory for Site-related compounds (i.e., PCBs). This water will represent the worst-case water expected to be generated at the Site during the proposed sediment dredging project.

Results of the wastewater characterization, including photographs, are presented in the Technical Memorandum presented in Appendix F.1.

4. Remedial Action Technologies

4.1 Sediment Isolation or Removal

This section presents the identification and screening of potential technologies for the removal and/or isolation of sediment from the Pond. These remedial technologies have been selected as candidates for reducing the potential impact of suspended PCB-impacted sediments to the current SWTP by removal or isolation from the water column. The removal of sediments has the benefit of providing additional storage for future sediment accumulation and/or stormwater during larger or more frequent storm events.

Sevenson has a temporary water treatment plant currently in operation to support the pilot trench construction project (with a 1,000,000-gallon holding tank), which has the ability to treat solids and PCBs at a rate of 1,000 gallons per minute (gpm). GM intends to continue the operation of this temporary water treatment plant as part of the Pond remediation project, with Sevenson to review the flow potential from the Pond during a storm event to determine if additional storage capacity would be warranted(and cost-effective).

4.1.1 Dry Excavation

Installation and continuous operation of a pumping system to maintain a dewatered condition for dry excavation would allow the removal of unconsolidated sediments from the bottom of the Pond in a highly controlled manner. This would also allow for examination of the existing clay liner at the base of the Pond. This technology would involve the pumping down of all of the water from the Pond to provide a completely dewatered area for excavation.

The dimensions of the Pond are too deep (20 ft) and wide (270 ft at the top) to allow excavation of the base by equipment staged at the top of the Pond. Therefore, the removal of sediment would likely be performed by excavators operating at the bottom of the Pond. Access to the bottom of the Pond is expected to be possible by track vehicles run directly along the 3:1 side slopes, although some aggregate fill may be required to facilitate access at a reduced slope (i.e., ramp diagonally down the slope), with fill to be removed during demobilization. Safety precautions would need to be implemented to mitigate any potential damage from heavy equipment to the bottom of the liner (e.g. crane mats).

The sediment material may require some strengthening to facilitate handling and disposal. This could be done by mixing reagent (e.g., Portland cement) into the sediment from a corner of the Pond outward and mixing with the excavator bucket. Excavated sediment would be loaded into either a small tracked vehicle and transported up the side of the Pond, or onto a conveyor used to move the sediment to a staging area at the top of the Pond. The sediment would be tested and disposed at a landfill permitted to receive the materials, characterized by “as found” concentrations determined by PCB testing of each load prior to transportation.

Following dry excavation, the bottom of the Pond would be lined with an FML. As part of the Pond lining process, GM may elect to increase the overall height of the top of Pond thereby increasing the storage volume.

The dry excavation option would require the storage and treatment of any stormwater generated during the dewatering and excavation of the Pond. For reference, NOAA data on the Bedford station shows that 1-year return storms of 1 hour are 1.17 inches (resulting in about 2.5 million gallons of Site drainage), 2 hours at 1.5 inches (3.24 million gallons) and 3 hours at 1.82 inches (3.93 million gallons). This stormwater volume could be handled by the Sevonson temporary water treatment system, however the dry excavation activities would cease during any large storm events (as the Pond is progressively dewatered again). Periodic storm events would limit the productivity until drier weather returned (this is the reasoning behind construction during the period of July to November).

4.1.1.1 Recommendation

This approach would have to be conducted in the summer during period of historic low precipitation amounts. If the construction season is wet, this concept would be more difficult to implement. As result, Section 4.1.2 presents a wet dredging alternative.

4.1.2 Dredging

Dredging involves the floatation of a barge on the water surface of the Pond, and the removal of sediments from beneath the water. This type of dredging can be performed by either mechanical or hydraulic dredging. Dredging involves mechanically removing, cutting, or hydraulically scouring the bottom of the waterway to dislodge the sediment. Once dislodged, the sediment may be removed from the water either mechanically with buckets, or hydraulically by pumping.

4.1.2.1 Mechanical Dredging

Mechanical dredges lift sediment mechanically to the surface at nearly in-situ densities, limiting the amount of excess water to be handled and treated. However, the water content in very shallow cuts, where fill depths can be low, may be higher than in deeper dredge cuts. Mechanical dredges tend to be more effective where dredged sediment must be transported by a barge to a disposal or treatment facility. Mechanical dredges are often selected for small dredging projects in confined areas such as docks and piers, as they are effective at removing large debris and adaptable to land-based operations. The most common mechanical dredges considered for environmental dredging are the wire-supported clamshell dredge and the articulated fixed-arm backhoe and bucket dredges. A bucket dredge is operated in the same manner as a land-based crane and bucket. For sediment removal, the dredge bucket is allowed to sink into the sediment and the bucket is closed and raised. Once above the water surface, the operator swings the bucket over the receiving container and discharges the load.

Advantages common to all types of mechanical dredges normally used for environmental dredging include the following:

- Rugged; can remove hard-packed materials.
- Can remove debris and debris-laden sediments.
- Can work in tight areas.
- Can remove sediments at nearly in-situ density, with minimal requirements for managing excess water.
- Can operate in deep water.
- Can switch from box cut buckets, to toothed buckets, to smaller buckets, etc.

Disadvantages common to all types of mechanical dredges normally used for environmental dredging include the following:

- Production rates for mechanical dredges are lower than comparably sized hydraulic dredges.
- Normally require barges for transport of the dredged sediments.
- May require re-slurry of sediment prior to treatment.

Mechanical dredging could efficiently and effectively remove sediment from the Pond. However, mechanical dredging would require large equipment and a significant work area for dewatering and storage/load out of material. The limited available space in the immediate area of the Pond would significantly reduce the efficiency of mechanical dredging. In addition, the mechanical dredge could pierce the existing clay liner.

4.1.2.2 Hydraulic Dredging

Hydraulic dredges remove and transport sediments with entrained water in the form of a slurry. Hydraulic dredges most commonly considered for environmental dredging are the cutterhead and horizontal auger dredges. The smaller hydraulic dredges used for environmental dredging are much more susceptible to complications due to debris and are capable of removing only relatively soft to medium stiff sediment. The advantage of these smaller hydraulic dredges is that they can work in relatively shallow water. These dredges can work in shallow water depths that might not normally be accessible to larger hydraulic dredges or sediment barges associated with mechanical dredging. The dredged material removed by hydraulic dredges is usually pumped directly to a storage or disposal area through a pipeline. Pipeline lengths of about a mile can be used with the dredge alone; while longer pumping distances are possible with the addition of booster pumps in the line. The solids content of the slurry is typically 8 to 10 percent by weight range. The large quantity of excess water generated by hydraulic dredging has a major impact on the design of dewatering, treatment, and disposal facilities. However, for this project, water produced by dewatering could re-enter the Pond via gravity pipeline. It should be noted that the Sevenson temporary water treatment system would be used to control the water elevation of the Pond. It should be noted that the current SWTP could additionally be used to treat stormwater if the total suspended solids (TSS) is low enough to not negatively affect treatment.

Advantages common to all hydraulic dredges normally associated with environmental dredging include the following:

- Capable of excavating most types of materials with higher production rates than comparably sized mechanical dredges.
- Capable of dredging on a practically continuous basis with higher production than similarly sized mechanical dredges.
- Capable of pumping material directly by pipeline to confined disposal facilities, geotubes, or mechanical dewatering and treatment facilities.
- Capable of switching dredge heads for different sediment types and generated residuals.

Disadvantages common to all hydraulic dredges normally associated with environmental dredging are:

- Difficulty with debris (plugging, inability to capture, pushed off location).
- Large quantity of excess water is generated, with potentially high cost of sediment dewatering and water treatment.

Hydraulic dredging could also be an effective means to complete the proposed sediment dredging of the Pond. A hydraulic dredge has the advantage of requiring very little material and equipment to be brought to the area, and of being able to pump the dredged sediment to a more suitable area for processing. A hydraulic dredge will typically employ a horizontal auger-type cutter head to loosen

sediment to be dredged, although alternative dredge head designs may be available. Horizontal auger-type hydraulic dredges utilize a rotating auger to loosen sediment and move the loosened sediments to the inlet of the suction pipe. These types of dredges will typically generate a slurry of sediment and water which is between 3 and 15 percent solids, which enters the suction line and is pumped to a sediment dewatering area through a pipe. The hydraulic dredge would not likely pierce the existing clay liner.

4.1.2.3 Recommendation

GHD recommends that the sediment be removed during a dry excavation, if practical, to allow the existing lowermost clay liner to be inspected and the FML installed under dry conditions. Sediment removal could be started with hydraulic (wet) dredging (dependent on constructability and price) for the first 90 or 95 percent of the sediment removal. For the last 5 to 10 percent of the sediments at the base of the Pond, the construction technique could be changed to a dry excavation to remove the final materials and to facilitate inspection of the clay liner and installation of the FML.

4.1.3 Capping/Lining

The remaining sediments at the base of the Pond and the existing clay liner can be covered with a liner (FML) constructed of synthetic material to further protect against any infiltration through the clay liner and to protect the water quality of the overlying water from any residual contamination in the underlying clay at the bottom of the Pond. Liner installation would be most effectively performed when the Pond is fully dewatered.

4.1.3.1 Recommendation

It is recommended that high-density polyethylene (HDPE) be used as the Pond liner material.

4.2 Handling of Removed Sediment

Sediments removed from the Pond are assumed to require off-Facility disposal, because there are no available disposal areas on Site. Based on the results of the sediment investigations conducted to date, the dewatered sediment will be disposed as non-hazardous and non-TSCA or TSCA waste. As such, waste disposal will be handled on an “as found” approach in those areas where previous sampling has shown PCB concentrations to be less than 50 mg/kg (i.e., non-TSCA). The initial sediment removed from the Pond will be characterized for PCBs after removal and dewatering, as discussed further below.

Referring to Figure 3.1, it can be seen that there are a large number of sample locations in the northern half of the Pond where PCB concentrations were found to be in excess of 50 mg/kg and therefore this sediment would require TSCA disposal. In addition, there are some sample locations in the southern end of the Pond with concentrations in excess of 50 mg/kg, so TSCA disposal would again be a requirement. However, there is an area in the middle of the Pond, between samples W2 and W3, where the PCB concentrations are all less than 50 mg/kg. As such, to potentially reduce the TSCA disposal costs, the wet dredging will be performed in three phases as follows:

- Phase I – removal of approximately 1,450 cy of sediment from the area between W2 and W3 (see Figure 4.1) (Non-TSCA)
- Phase II – removal of approximately 1,575 cy of sediment from the area south of, and including, location W2 (TSCA)

- Phase III – removal of approximately 3,825 cy of sediment from the area north of, and including, location W3 (TSCA)

Sediment removal during the first phase will involve sampling “as found” following dewatering to determine if TSCA disposal is required or not. This sampling will be performed in daily batches as filter press operations are performed (expected to be approx. 75 tons/day). Upon completion of Phase I, the other two phases will be assumed to contain PCBs in excess of 50 mg/kg and all this material will be sent off Site for TSCA disposal.

It should be noted that the sum of the three volumes presented above total to only 6,850 cy, as it is assumed that wet dredging would remove up to 90 percent of the total estimated sediment volume of 7,600 cy, with the final 10 percent being removed via dry excavation (Phase IV). As discussed in Section 3.2, the average thickness of sediment was found to be 2.2 ft during the recent pre-design sediment core sampling event, although Figure 3.3 shows that the typical thickness of sediment at the base of the stormwater pond was closer to 3 ft. As such, it would be expected that wet dredging would remove all but the lower 0.3 ft of sediment. This remaining volume is assumed to be approx. 750 cy, which would be removed via dry excavation. All of this final sediment removal would be considered as over 50 mg/kg material and be sent for TSCA disposal.

During the first phase of excavation, the dewatered sediments will be placed in daily batches on a staging pad where the batches can be kept separate. Samples of each daily batch will be collected for analysis of total PCB concentrations. It is anticipated that the Phase I batch tests will show PCB concentrations less than 50 mg/kg and therefore not require TSCA disposal, but any batches that do exhibit PCB concentrations in excess of 50 mg/kg will be sent for TSCA disposal.

GM is currently negotiating with the Heritage Environmental Services LLC (Heritage) Roachdale Indiana landfill facility and Waste Management or Republic for non-TSCA waste. The Heritage landfill facility has been approved for disposal of Subtitle C hazardous waste consistent with RCRA. Via this Conceptual Design Report, GM is requesting a project-specific approval from the U.S. EPA for the disposal of TSCA sediment consistent with other soil or sediment remediation historically conducted at the Facility for the RCRA Corrective Action.

4.2.1 Dewatering

Following dredging, excess water must be separated from the sediment to facilitate treatment, and disposal of the sediment. Dewatering is typically completed utilizing gravity settling, GeoTubes, mechanical pressing, centrifuging, or some combination of these technologies.

4.2.1.1 Dewatering Methods

Effective dewatering of slurry from hydraulic dredging operations will likely require the addition of chemicals to promote the aggregation of fine grained sizes. These additives can be cationic or anionic, depending on the surface chemistry of the sediments.

Dewatering would be performed by passive or mechanical methods. The most common passive methods allow gravity drainage, either from a sediment stockpile, or from sediment encased in GeoTubes with pore sizes appropriate for the sediment grain size distribution. A polymer addition may also be needed to promote aggregation of fines and aid gravity drainage. Gravity drainage would require a lined staging area where elutriate waters could drain and discharge back to the Pond or to a sump for treatment in a water treatment system. If the volume of sediments to be

removed is on the order of 7,600 cy, hydraulic removal would generate a slurry of 76,000 cy at 10 percent solids. Settling this volume in GeoTubes would require a lined staging area of over 6 acres if the tubes are 6 ft high, which is not practical or safe. The topography of the area around the Pond would be very limiting for the staging of any gravity drainage system in the vicinity of the Pond for safety reasons.

Mechanical dewatering can be performed using a centrifuge or filter press. A centrifuge operates by spinning the slurry at a high rate, moving the heavier solids to the outside and retaining water near the axis of rotation for drainage. Centrifuge is an effective means of dewatering; however, it can be difficult to balance a high feed rate with the residence time required for effective separation. A plate and frame filter press uses stacked filter media to separate solids under pressures as high as 220 psi. A pre-coat material is typically applied on the filter media to promote filtration. As solids build up on the filter media, they form an additional filtering substance. Plate and filter presses can generate the highest cake solid content of the various mechanical dewatering methods. This type of technology also typically uses the least amount of space for processing works.

Dewatering may also be combined with a treatment step. Treatment of dewatering filtrate to meet NPDES requirements will be required prior to discharge of the filtrate. The dewatering filtrate could be directed via gravity pipeline back to the Pond and/or to the Sevenson treatment facility and/or the current SWTP for treatment.

4.2.2 Solidification

Dredged or excavated sediments may require strengthening to support a productive construction approach due to the expected high water content, such as sediments removed by excavation or mechanical dredge. Soft, wet solids may also still yield free water during trucking that could cause failure of disposal acceptance tests (e.g., Paint Filter Liquid test). Even some filter press solids may require amendment to meet paint filter test requirements for landfill disposal. Strengthening and drying can be accomplished by the addition of Portland cement at a low mixture rate (2 to 3% was recommended by the treatability study) to stiffen sediments and absorb remaining free waters to aid logistics for constructability. This can be performed in a pug mill or with an auger mixing system in a container. Treatment would be relatively rapid, as a result of the pozzolanic action of the cement.

4.3 Stormwater Pond Preparation Activities

Prior to commencement of sediment removal via wet dredging and subsequent dry excavation, the existing Pond side slopes must be cleaned up of existing vegetation, rip rap erosion protection, and minimally contaminated bank soils. The existing vegetation would first be removed by cutting at the bank surface and placing in an on-Site stockpile containing other vegetation (e.g., stockpile of trees and vegetation from the Pilot Trench construction). All Pilot Trench and Stormwater Pond trees and vegetation will be chipped and re-used on Site.

The upper portion of the Pond side slopes are lined with rip rap from approximately elevation 673 ft AMSL to the top of the slopes at approximately 680 ft AMSL. This rock will need to be removed to facilitate liner installation, with this material either being sent for off-Site disposal as non-TSCA waste or the rocks could be placed on the existing access road as part of plans to refurbish the Pond.

From the bottom edge of the rip rap at 673 ft AMSL to approximately 667 ft AMSL (1 to 2 ft above the current waterline), the upper 6 inches of bank soils would be removed. This soil removal above

the waterline is required to facilitate soil and sediment removal below the waterline, some of which must be removed because sampling indicated that this material exceeded TSCA. It should be noted that most of the bank soils above elevation 667 ft AMSL exhibited PCB concentrations less than 1.0 mg/kg, with the remainder having concentrations being between 1 and 14 mg/kg. As such, the removed soils from the areas with less than 10 mg/kg PCBs could potentially be used as clean fill for berms to refurbish the Pond. However, the soils from areas in excess of 10 mg/kg PCBs would need to be transported off-Site for appropriate disposal as non-TSCA waste. The soils in excess of 10 mg/kg are located specifically in the area around the southwest inlet, as shown on Figure 3.1.

5. Recommended Conceptual Design

As discussed in Section 4.1.1., following the majority of sediment removal using hydraulic (wet) dredging, dry excavation and continuous operation of a pumping system to maintain a dewatered condition would allow for removal of the final 5 to 10 percent of unconsolidated sediments from the bottom of the Pond in a highly controlled manner. This would also allow for examination of the current clay liner of the Pond and installation of a flexible membrane liner in a controlled fashion. This would require the use of low load bearing equipment and/or crane mats during dry excavation to protect the existing clay liner. As an alternative, Sevenson is looking into the use of vac trucks for removal of the final 5 to 10 percent of the sediment if it is found to still be too wet for dry excavation. Figure 5.1 presents the conceptual design.

Dry excavation would require removal of all water from the Pond (after completion of wet dredging) to provide a completely dewatered area for excavation. This would be accomplished by pumping water to the current on-Site Sevenson temporary water treatment plant (or SWTP), located to the northeast of the Pond (GM would contract Sevenson for this work). The Sevenson temporary system is a one million gallon storage system rated to treat 1,000 gpm. Dewatering of the Pond would be coordinated with Facility fire protection personnel, as discussed in Section 6.2 below.

The recommended design also incorporates the general concept of sediment retention near the two inlet pipes. Upon completion of sediment removal and Pond lining, silt curtains could be installed around each stormwater inlet to provide sediment traps at these two locations. It should be noted that there are already two rows of silt curtains in place around these two inlet pipes; however, these are "off the shelf" silt curtains which do not capture or contain the finer silt particles that are causing problems at the SWTP. During detailed design, GHD will source more appropriate (tighter) silt curtain material that will contain the finer silt particles and potentially hold water a little longer to facilitate dropping out of sediment.

To accompany the dredging operations and the required dewatering, GHD has developed a plan for the construction of two working pads on the adjacent property to the southeast of the Pond (north of the new GWTP). One pad would be required for sediment processing, which includes the mix tanks and filter presses for removal of the water and reduction of moisture content. From the east end of the lower pad, a conveyor system would lift the filter cake material discharged by the filter presses to a higher pad for storage prior to characterization sampling (where required) and transport to the appropriate disposal facility (e.g. non-TSCA or TSCA). The layout of the proposed working pads for processing and staging of dewatered sediment are presented in Appendix G.

Finally, the Pond would be fenced off to prevent falling into the Pond for safety reasons, as the new liner on the banks would make climbing back out very difficult. Pond access will be maintained

using the existing ladder affixed to the concrete inlet structure at the north end of the Pond and adding several other egress ladders, as needed. This security fence would be installed around the entire perimeter along the inside edge of the access road. The recommended design is presented on Figure 5.4.

6. Regulatory Requirements

6.1 Rule 5 Permit

The Rule 5 permit is a construction permit associated with stormwater management to prevent erosion into surface waters. A Rule 5 permit would be obtained from the City of Bedford. For this activity, 100 percent of stormwater is being managed and treated.

7. Schedule

The following presents the tentative schedule for the detailed design and Rule 5 permitting:

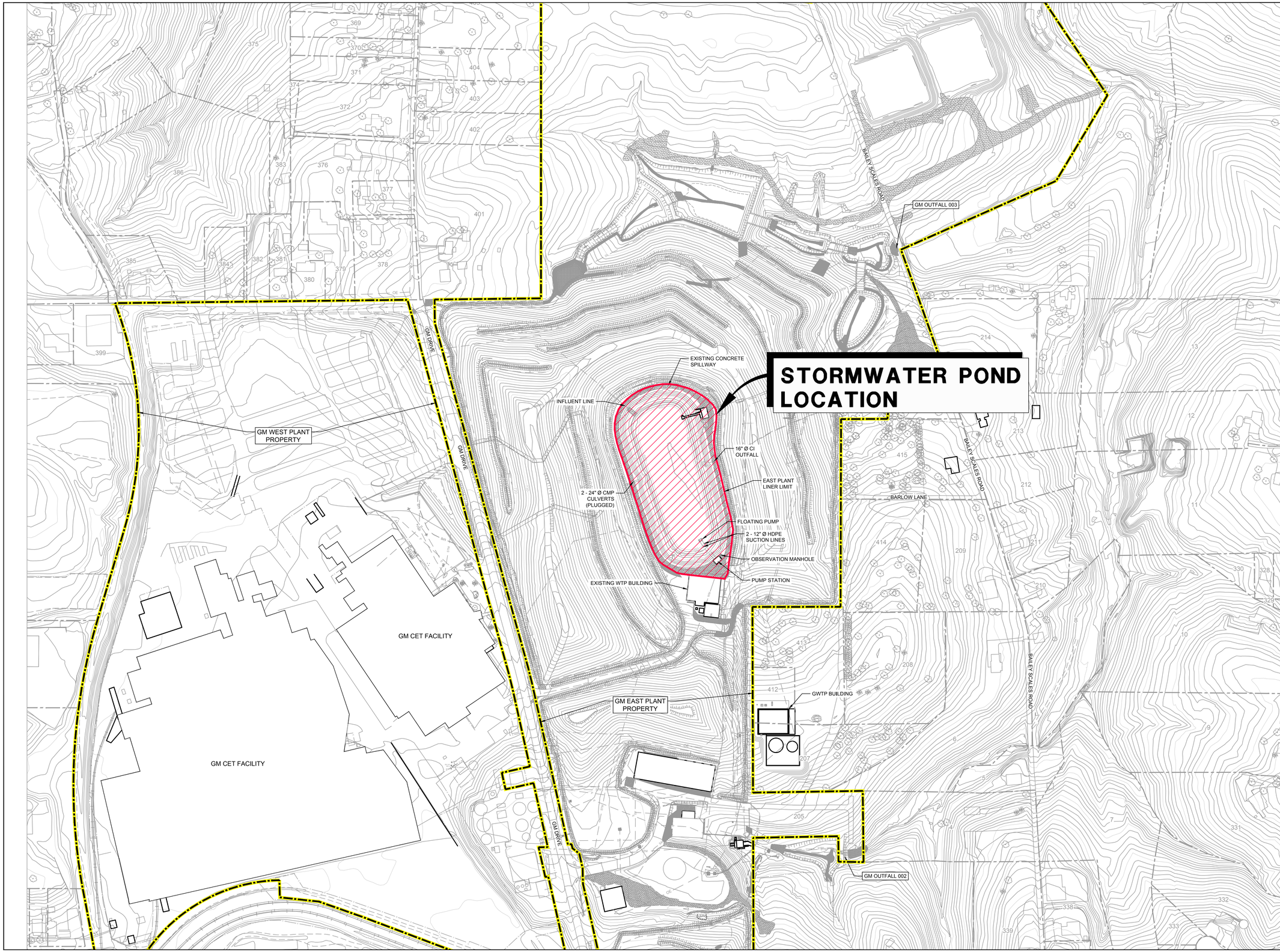
1.	Pre-Design	March - May 2016
2.	Basis of Design Report/30% Design	April - June 2016
3.	Draft Detailed Design (95%) Report	June - July 2016
4.	Final Detailed Design (100%) Report	July 2016
5.	Contractor Procurement or Component Acquisition for Design-Build	May 2016 - July 2016
6.	Construction	July - November 2016
7.	Construction Certification Report	October - December 2016

It is assumed that sediment removal from the Stormwater Pond will start in July 2016 and will take 3 or 4 months to complete (July to October 2016), followed by installation of the FML liner and silt curtains. Final demobilization could be conducted during October and November 2016.

8. References

CRA, May 25, 2001. Current Conditions Report, GM Powertrain Bedford Facility, 105 GM Drive, Bedford, Indiana.

Hatch, 2003. Final Report Stormwater Management System Operations Review Phase 2.



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Client
GM
BEDFORD, INDIANA

Project
CET BEDFORD FACILITY

No.	Issue	Drawn	Approved	Date
-	-	-	-	-

Drawn **N.Q.**	Designer
Drafting Check	Design Check
Project Manager **G.T.**	Date **Jul 4, 2016**
This document shall not be used for construction unless signed and sealed for construction.	Scale **1" = 150'**
Original Size **ANSI D**	Bar is one inch on original size drawing 0 1"

Project No. **13968-00**

Title
SITE LOCATION MAP
BASIS OF DESIGN REPORT
(30% DESIGN)

Sheet No.
FIGURE 1.1

Sheet **1** of **1**

Plot Date: 4 July 2016 - 3:54 PM Plotted By: Pletz, Bruce CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)CI\13968-00(395)CI-WA001.dwg

EXISTING CONCRETE SPILLWAY

INFLUENT LINE

SILT CURTAIN

SD-X220Y224 (25.8 J)

16" Ø CI OUTFALL

2 - 24" Ø CMP CULVERTS (PLUGGED)

3D SURFACE AREA OF STORMWATER POND = 145,000 ft² (TO TOP OF BANK)

EAST PLANT LINER LIMIT

SD-X225Y180 (16.96)

STORMWATER POND TOP OF BANK LIMIT

Grid A1 (38)

Grid D1 (16)

Grid F1 (17)

EAST PLANT LINER LIMIT

Grid G2 (50)

SILT CURTAIN

Grid D7 (3.7)

Grid G3 (88)

FLOATING PUMP TO SWTP

Grid D8 (19)

Grid C7 (20)

Grid E7 (14)

2 - 12" Ø HDPE SUCTION LINES

Grid A6 (69)

Grid A7 (200)

Grid G6 (280)

BANK POINT 5 (1.3)

Grid F7 (49)

BANK POINT 6 (18)

Grid F8 (31)

Grid B7 (62)

OBSERVATION MANHOLE

BANK POINT 1 (4.9)

Grid E8 (8.5)

BANK POINT 3 (4.1)

PUMP STATION

BANK POINT 2 (14)

BANK POINT 9 (9.5)

BANK POINT 4 (7.6)

BANK POINT 7 (13)

MH

BANK POINT 8 (8.1)

HYD.

48"Ø STORM LINE

PULLBOX

MH

EXISTING WTP

LEGEND

PCB RESULT > 1.0 AND < 10 mg/kg

PCB RESULT ≥ 10 AND < 50 mg/kg

PCB RESULT ≥ 50 mg/kg

(10) PCB RESULTS IN PPM

0 25 50ft

GM CET BEDFORD FACILITY
BEDFORD, INDIANA

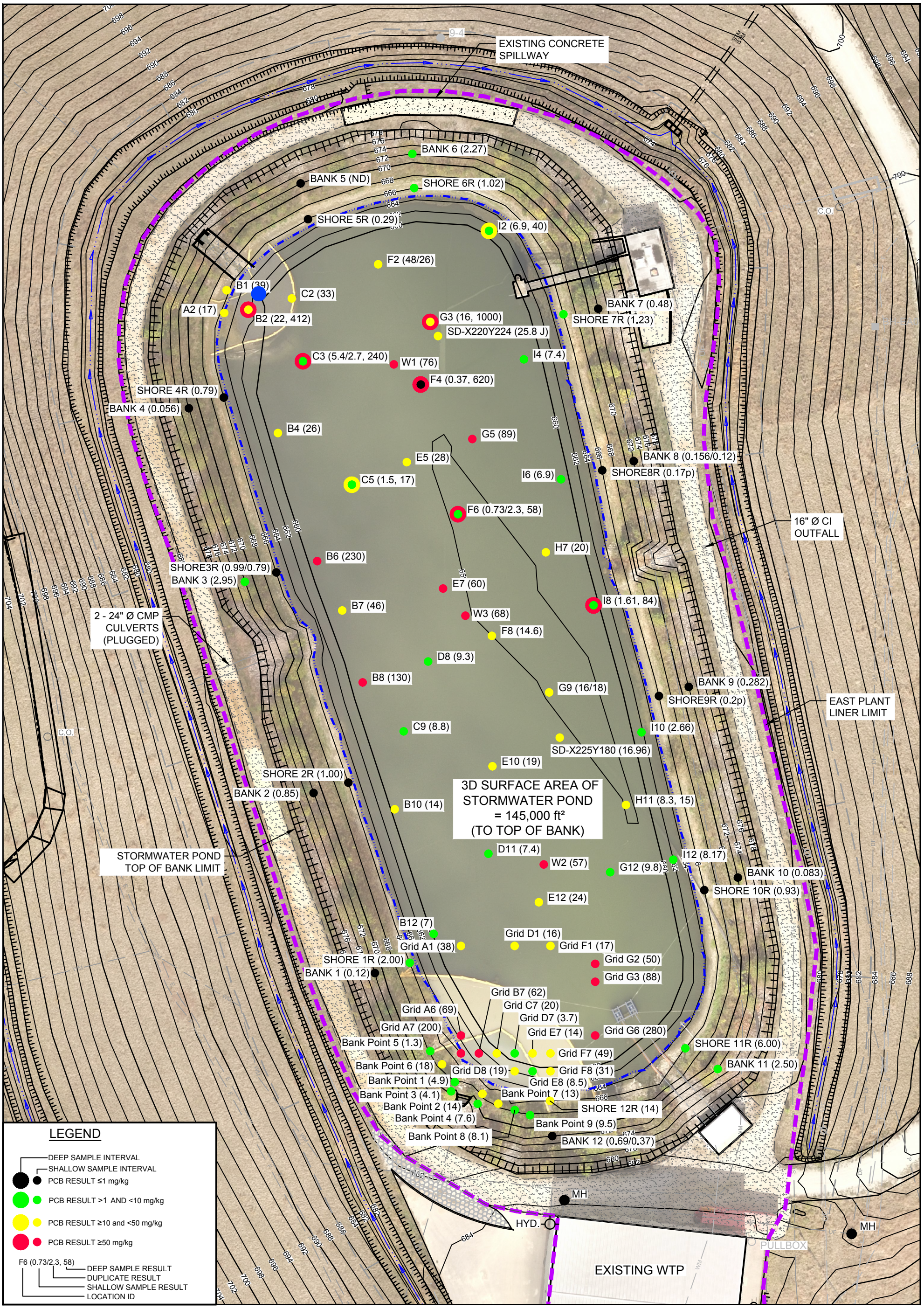
13968-00

Jun 23, 2016

HISTORICAL PCB ANALYTICAL RESULTS - SEDIMENT AND SOIL
BASIS OF DESIGN REPORT (30% DESIGN)

FIGURE 2.1

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)GN\13968-00(395)GN-WA011.dwg



Source: GHD UAV SURVEY, OCTOBER 2015.

0 25 50ft

Coordinate System:
INDIANA WEST SP
NAD83 FT

GM CET BEDFORD FACILITY
BEDFORD, INDIANA

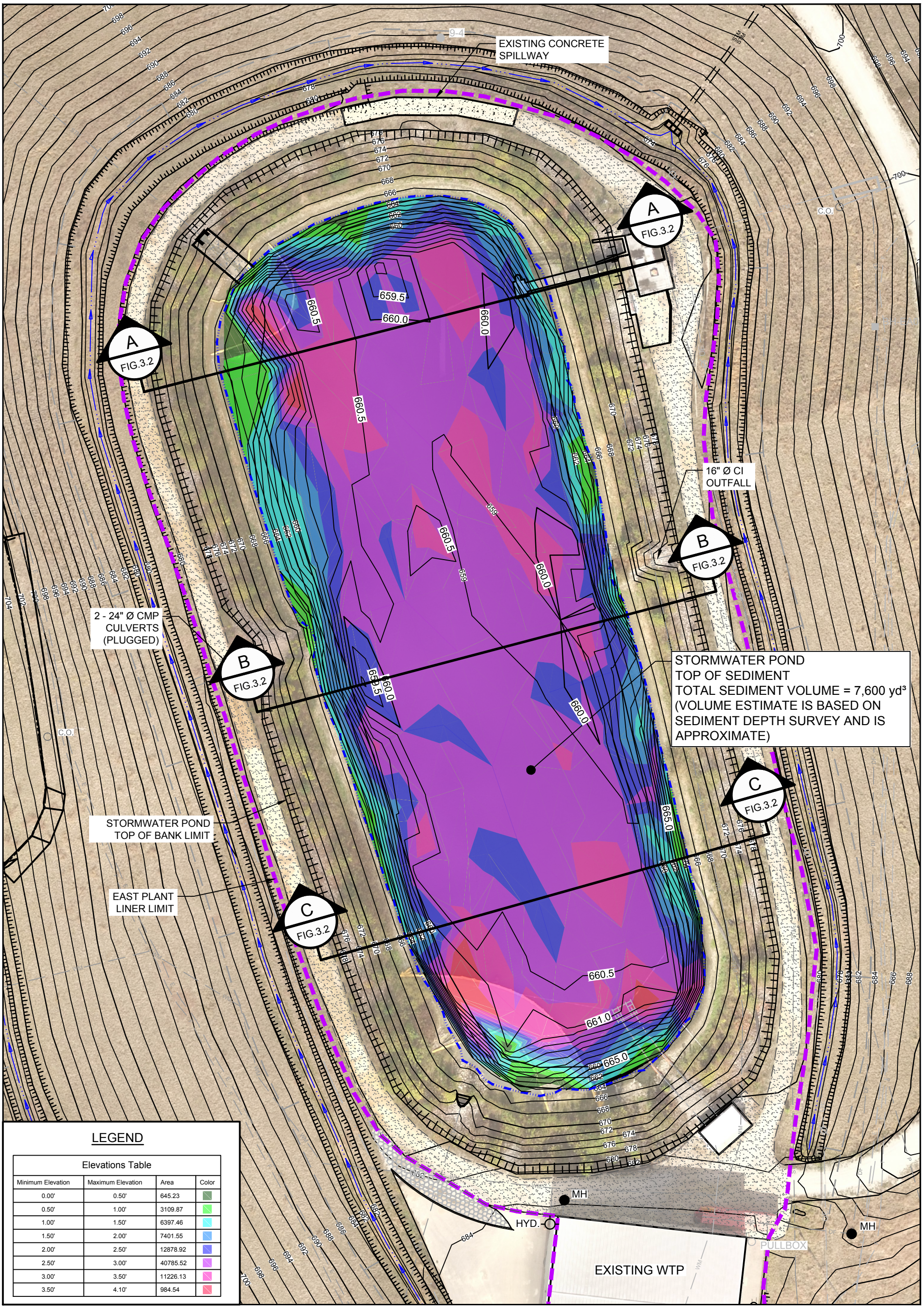
13968-00

Jun 23, 2016

PRE-DESIGN PCB RESULTS
BASIS OF DESIGN REPORT (30% DESIGN)

FIGURE 3.1

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)GN\13968-00(395)GN-WA010.dwg



LEGEND

Elevations Table			
Minimum Elevation	Maximum Elevation	Area	Color
0.00'	0.50'	645.23	
0.50'	1.00'	3109.87	
1.00'	1.50'	6397.46	
1.50'	2.00'	7401.55	
2.00'	2.50'	12878.92	
2.50'	3.00'	40785.52	
3.00'	3.50'	11226.13	
3.50'	4.10'	984.54	

Source: GHD UAV SURVEY, OCTOBER 2015

0 25 50ft

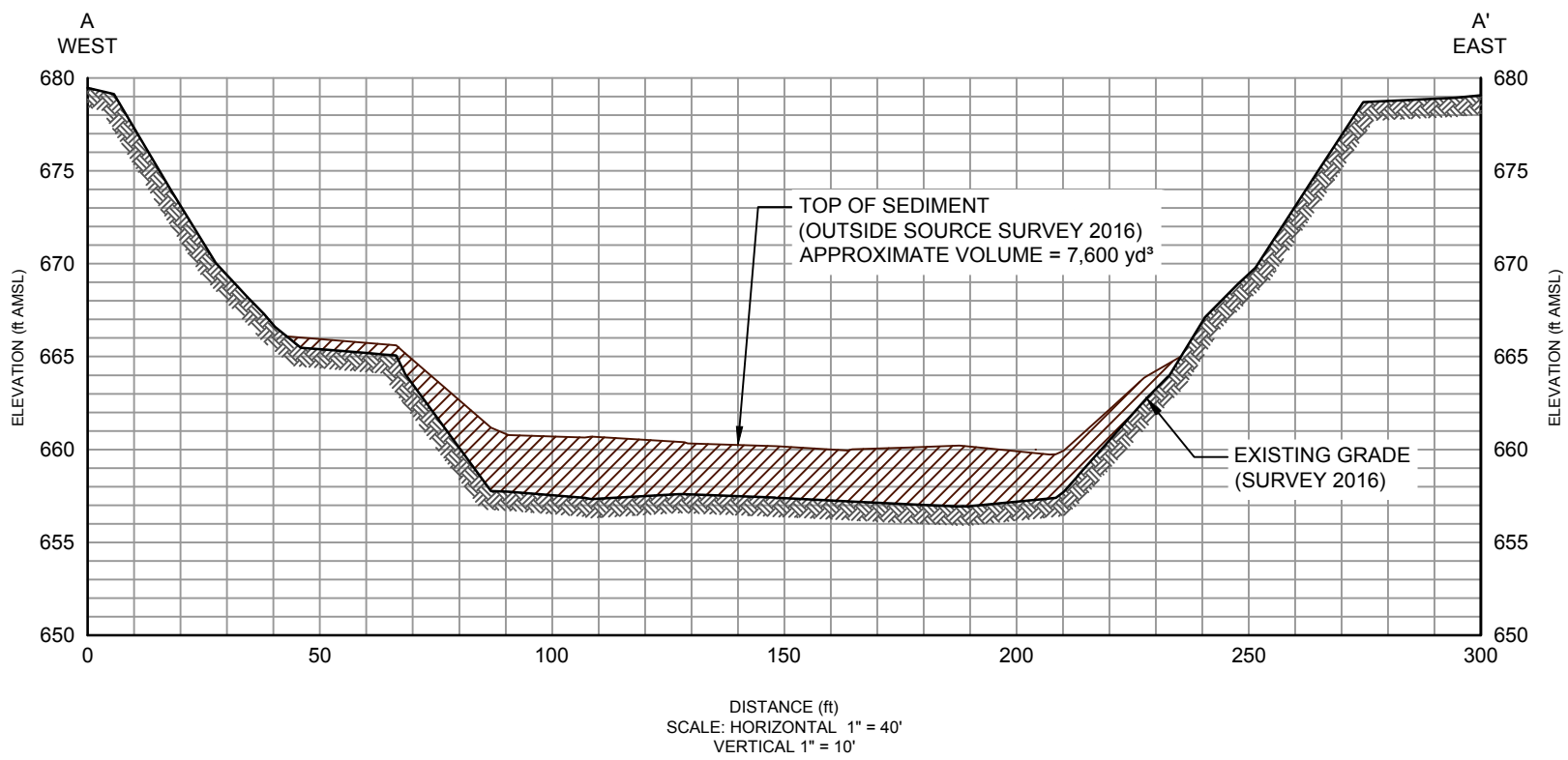
GM CET BEDFORD FACILITY
BEDFORD, INDIANA

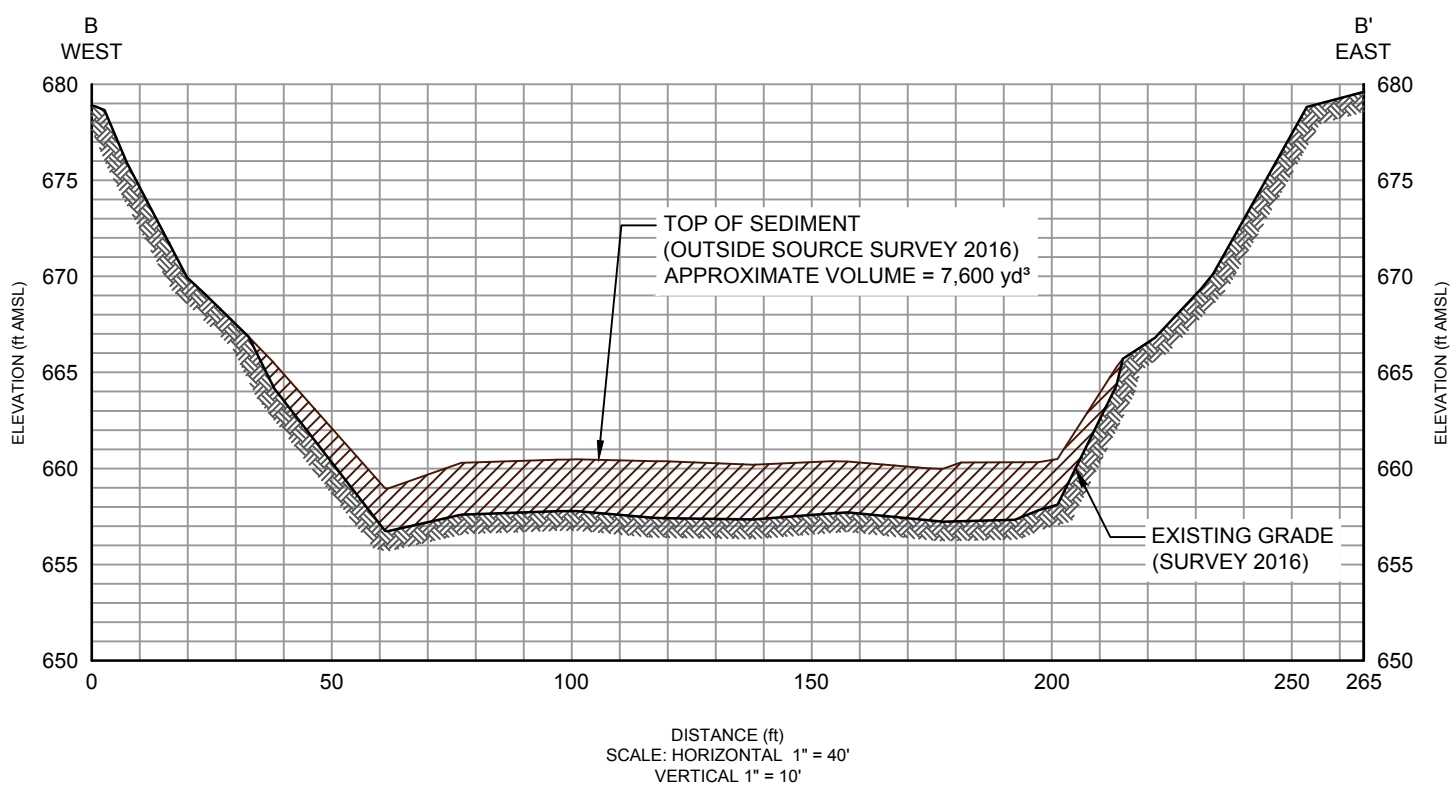
13968-00
Jun 23, 2016

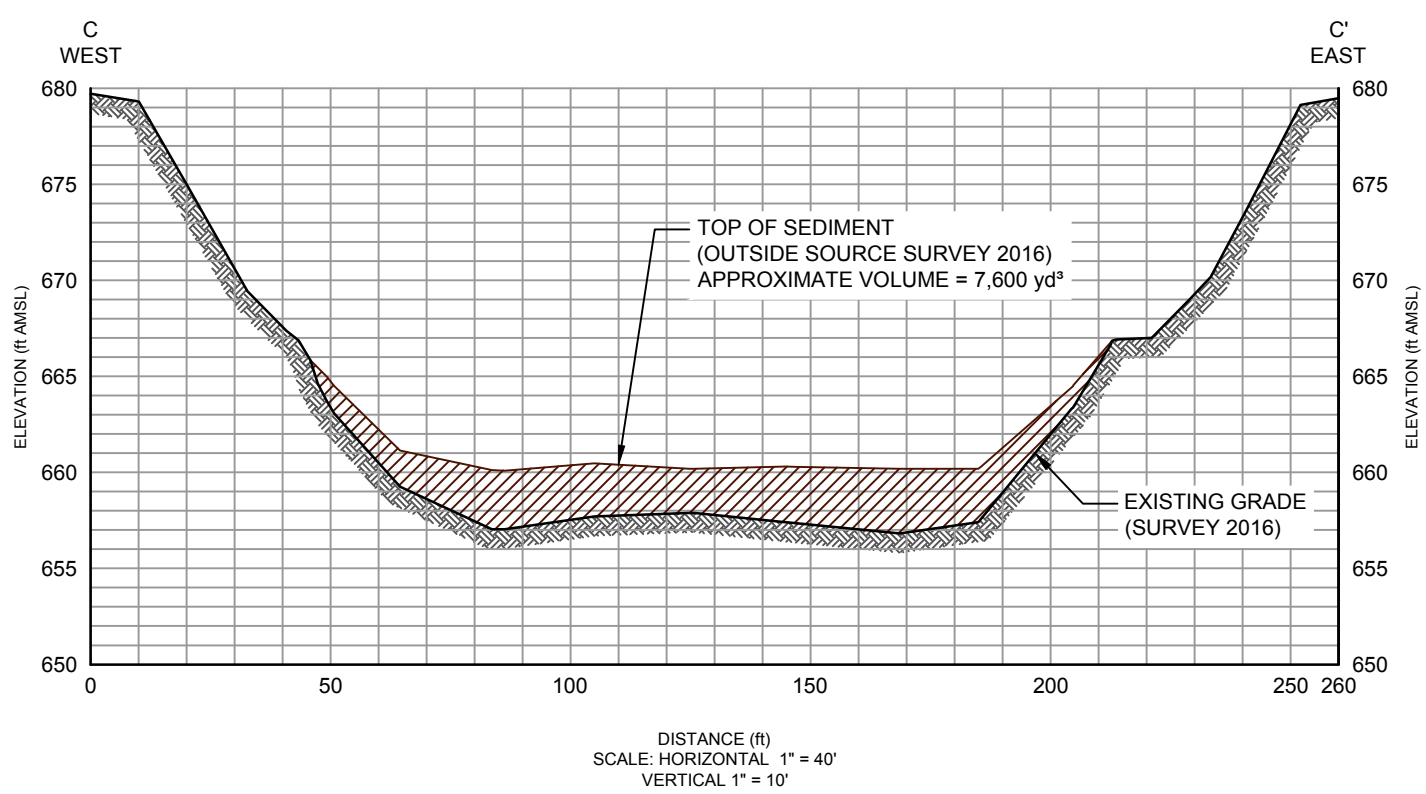
PRE-DESIGN SEDIMENT THICKNESS
BASIS OF DESIGN REPORT (30% DESIGN)

FIGURE 3.2

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)GN\13968-00(395)GN-WA006.dwg







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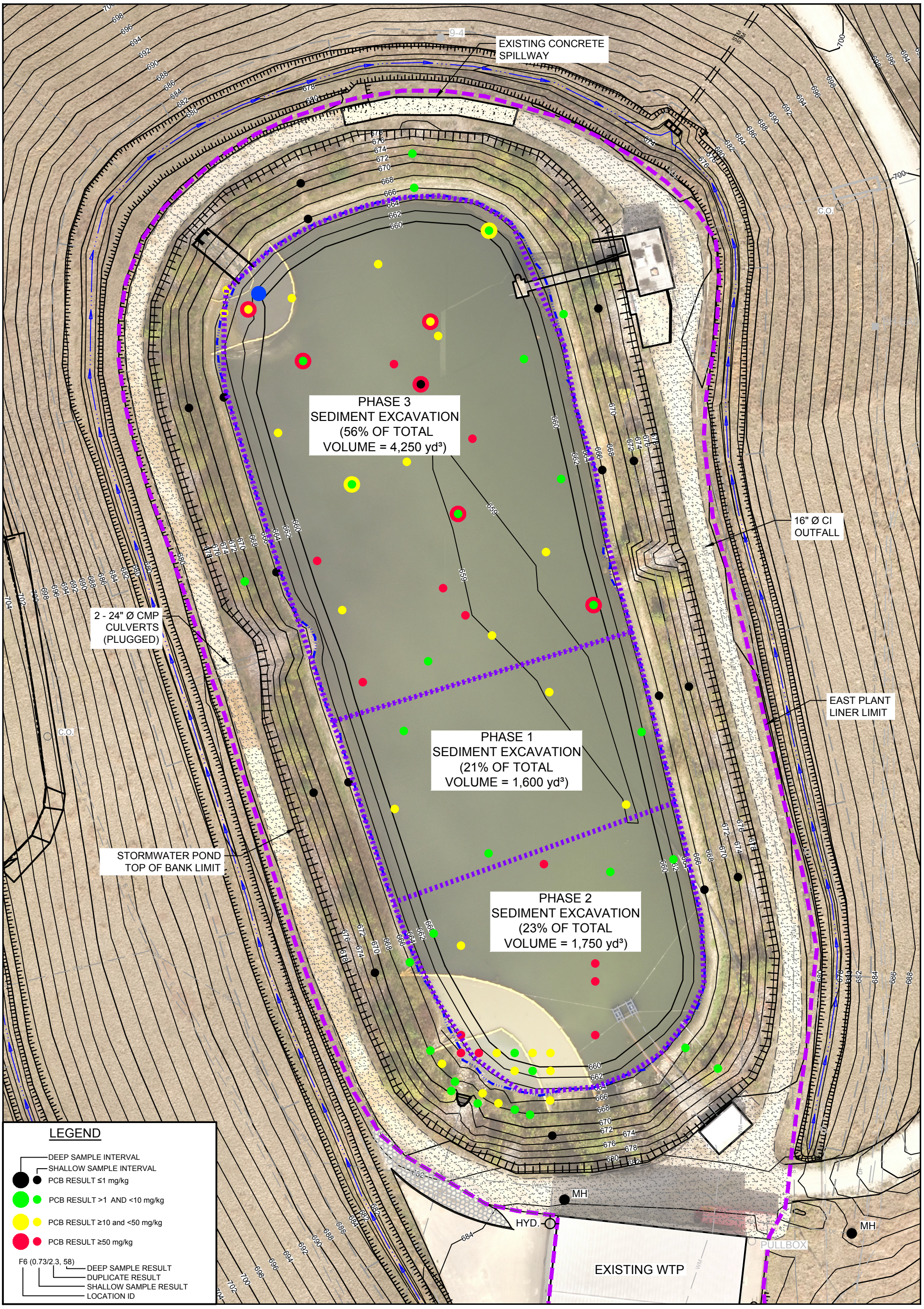
Jun 23, 2016

PRE-DESIGN CROSS SECTIONS
BASIS OF DESIGN REPORT (30% DESIGN)

FIGURE 3.3

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)GN\13968-00(395)GN-WA006.dwg



Source: GHD UAV SURVEY, OCTOBER 2015.

0 25 50ft

Coordinate System:
INDIANA WEST SP
NAD83 FT

GM CET BEDFORD FACILITY
BEDFORD, INDIANA

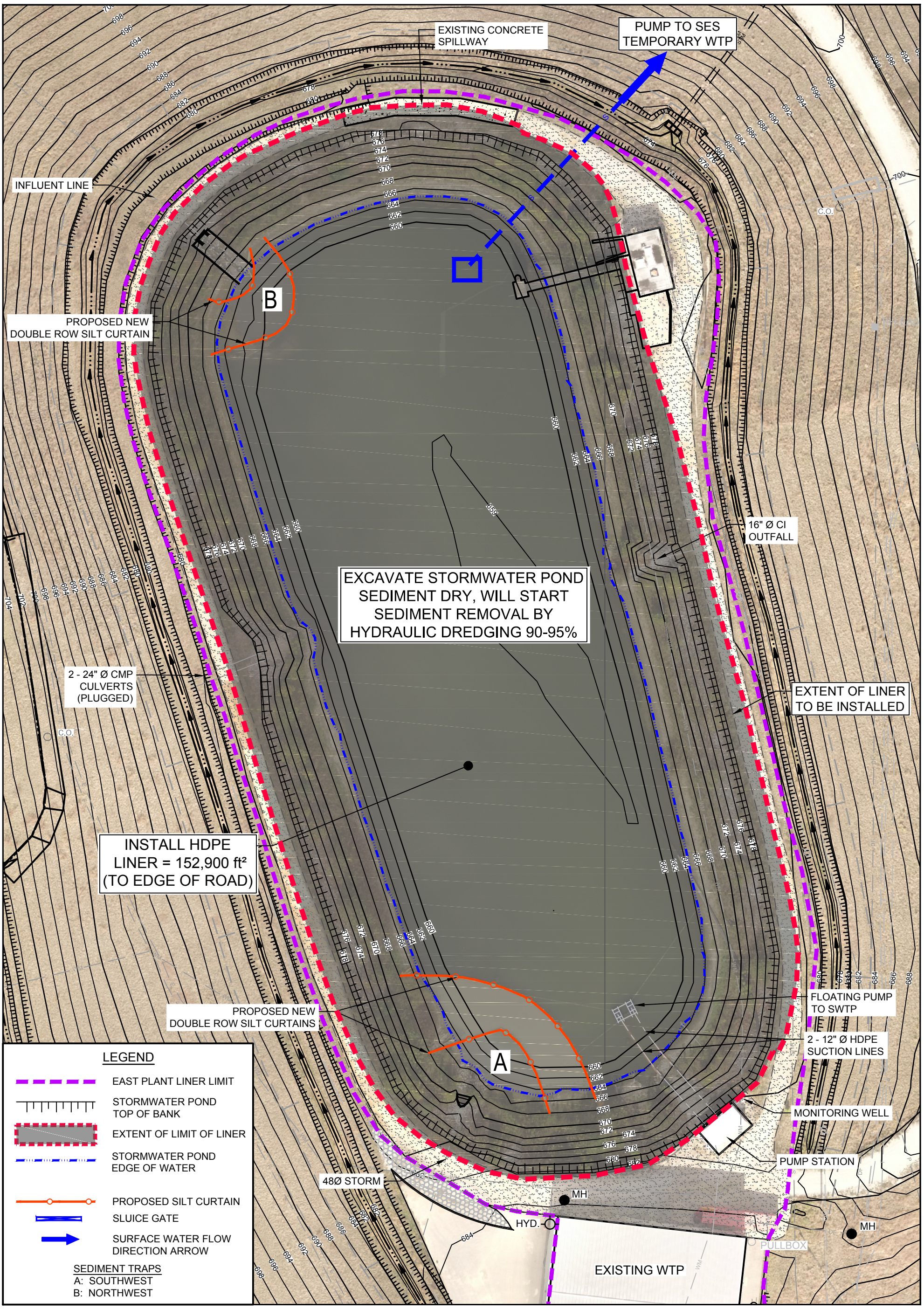
13968-00

Jun 23, 2016

PROPOSED PHASES OF SEDIMENT EXCAVATION
BASIS OF DESIGN REPORT (30% DESIGN)

FIGURE 4.1

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)GN\13968-00(395)GN-WA015.dwg



Source: GHD UAV SURVEY, OCTOBER 2015

0 25 50ft

GM CET BEDFORD FACILITY
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13968-00
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RECOMMENDED OPTION
BASIS OF DESIGN REPORT (30% DESIGN)

FIGURE 5.1

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(395)\13968-00(395)GN\13968-00(395)GN-WA016.dwg

Table 3.1

Sediment Thickness and Vibracore Locations
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Survey Points: **Equipment**: Trimble R8-GNSS RTK
April 5-9, 2016

Coordinate System: US State Plane, NAD 83 (feet)
Zone: Indiana West **Vertical: NAVD88**

Location	Northing	Easting	Water Surface Elevation (ft AMSL)	Depth of water (ft)	Depth to bottom of sediment (ft)	Elevation of top of sediment (ft)	Elevation of bottom of sediment (ft AMSL)	Thickness of sediment (ft)	Sediment Sample Collected (PCB Analysis/ Grain Size)
BENCH 56	1323949.710	3124476.300	679.82	N/A	N/A	N/A	N/A	N/A	N/A
A2	**1323947.237**	**3124231.895**	**670.5**	**4.8**	**5.1**	**665.7**	**665.4**	**0.3**	**PCBs**
A3	1323907.630	3124231.600	668.5	2.4	3.0	666.1	665.5	0.6	-
A4	1323872.630	3124241.790	668.5	2.5	3.4	666.0	665.1	0.9	-
A5	1323837.740	3124252.310	668.5	3.6	4.8	664.9	663.7	1.2	-
A6	1323802.940	3124263.150	668.5	3.5	4.5	665.0	664.0	1.0	-
A7	1323768.660	3124275.620	668.5	1.7	2.1	666.8	666.4	0.4	-
A8	1323734.070	3124287.080	668.5	3.0	4.3	665.5	664.2	1.3	-
A9	1323699.770	3124299.470	668.5	2.6	3.5	665.9	665.0	0.9	-
A10	1323664.980	3124310.340	668.5	1.8	2.3	666.7	666.2	0.5	-
A11	1323630.390	3124321.830	668.5	2.7	3.5	665.8	665.0	0.8	-
A12	1323596.150	3124334.400	668.5	3.6	4.9	664.9	663.6	1.3	-
A13	1323563.140	3124350.900	668.5	1.5	3.4	667.0	665.1	1.9	-
B1	**1323959.880**	**3124233.259**	**670.4**	**4.0**	**4.2**	**666.4**	**666.3**	**0.2**	**PCBs**
B2	**1323949.072**	**3124245.378**	**670.0**	**7.3**	**11.3**	**662.7**	**658.7**	**4.0**	**PCBs**
B3	1323914.960	3124254.860	668.5	2.9	3.5	665.6	665.0	0.6	-
B4	**1323880.120**	**3124261.904**	**668.8**	**6.0**	**7.7**	**662.8**	**661.1**	**1.7**	**PCBs**
B5	1323844.820	3124274.780	668.5	6.8	8.3	661.7	660.2	1.5	-
B6	**1323808.617**	**3124283.789**	**668.9**	**7.0**	**8.6**	**661.9**	**660.3**	**1.6**	**PCBs**
B7	**1323781.099**	**3124297.789**	**668.7**	**8.6**	**11.2**	**660.1**	**657.5**	**2.6**	**PCBs**
B8	**1323740.874**	**3124309.253**	**668.6**	**9.7**	**11.9**	**658.9**	**656.7**	**2.2**	**PCBs**
B9	1323705.060	3124316.270	668.5	6.6	9.7	661.9	658.8	3.1	-
B10	**1323670.025**	**3124327.130**	**668.6**	**7.0**	**8.8**	**661.6**	**659.8**	**1.8**	**PCBs**
B11	1323635.550	3124338.190	668.5	8.1	10.9	660.4	657.6	2.8	-
B12	**1323600.464**	**3124348.877**	**668.4**	**7.2**	**9.1**	**661.2**	**659.4**	**1.9**	**PCBs**
B13	1323566.040	3124360.100	668.5	7.5	11.5	661.0	657.0	4.0	-
B14	1323531.280	3124371.050	668.5	2.0	3.6	666.5	664.9	1.6	-
C1	1323981.700	3124256.700	668.5	1.6	2.6	666.9	665.9	1.0	-
C2	**1323955.334**	**3124269.624**	**670.1**	**10.0**	**11.7**	**660.1**	**658.4**	**1.7**	**PCBs**
C3	**1323920.272**	**3124275.900**	**668.2**	**7.3**	**10.7**	**660.9**	**657.6**	**3.4**	**PCBs**
C4	1323885.910	3124283.910	668.5	7.5	10.6	661.0	657.9	3.1	-
C5	**1323851.342**	**3124303.199**	**668.3**	**7.8**	**10.8**	**660.5**	**657.5**	**3.0**	**PCBs**
C6	1323815.770	3124303.840	668.5	7.9	10.7	660.6	657.8	2.8	-
C7	1323780.700	3124313.800	668.5	7.8	10.7	660.7	657.8	2.9	-
C8	1323745.830	3124324.400	668.5	8.2	10.9	660.3	657.6	2.7	-
C9	**1323713.573**	**3124332.145**	**668.2**	**8.1**	**10.7**	**660.1**	**657.6**	**2.6**	**PCBs**
C10	1323676.320	3124346.310	668.5	8.1	10.9	660.4	657.6	2.8	-
C11	1323641.560	3124357.270	668.5	8.2	10.9	660.3	657.6	2.7	-
C12	1323606.810	3124368.220	668.5	8.4	11.5	660.1	657.0	3.1	-
C13	1323572.050	3124379.180	668.5	7.5	10.8	661.0	657.7	3.3	-
C14	1323537.300	3124390.140	668.5	7.5	7.5	661.0	661.0	0.0	-
C15	1323512.090	3124398.080	668.5	2.9	2.9	665.6	665.6	0.0	-
D1	1323992.670	3124274.390	668.5	1.3	2.0	667.2	666.5	0.7	-
D2	1323962.070	3124283.080	668.5	7.8	10.9	660.7	657.6	3.1	-
D3	1323927.000	3124293.040	668.5	7.8	11.2	660.7	657.3	3.4	-
D4	1323891.930	3124303.000	668.5	7.9	11.1	660.6	657.4	3.2	-
D5	1323856.860	3124312.960	668.5	8.0	10.9	660.5	657.6	2.9	-
D6	1323821.790	3124322.930	668.5	8.3	10.7	660.2	657.8	2.4	-
D7	1323786.720	3124332.890	668.5	8.1	10.6	660.4	657.9	2.5	-
D8	**1323752.565**	**3124345.780**	**668.3**	**7.8**	**10.5**	**660.5**	**657.8**	**2.7**	**PCBs**

Table 3.1

Sediment Thickness and Vibracore Locations
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Survey Points: **Equipment**: Trimble R8-GNSS RTK
April 5-9, 2016

Coordinate System: US State Plane, NAD 83 (feet)
Zone: Indiana West **Vertical: NAVD88**

Location	Northing	Easting	Water Surface Elevation (ft AMSL)	Depth of water (ft)	Depth to bottom of sediment (ft)	Elevation of top of sediment (ft)	Elevation of bottom of sediment (ft AMSL)	Thickness of sediment (ft)	Sediment Sample Collected (PCB Analysis/ Grain Size)
D9	1323717.090	3124354.440	668.5	8.5	10.9	660.0	657.6	2.4	-
D10	1323682.340	3124365.400	668.5	8.3	11.1	660.2	657.4	2.8	-
D11	**1323645.218**	**3124379.508**	**668.1**	**8.1**	**10.3**	**660.0**	**657.7**	**2.2**	**PCBs**
D12	1323612.820	3124387.310	668.5	8.0	10.8	660.5	657.7	2.8	-
D13	1323578.070	3124398.260	668.5	7.9	10.8	660.6	657.7	2.9	-
D14	1323543.310	3124409.220	668.5	7.2	10.6	661.3	657.9	3.4	-
D15	1323512.920	3124418.800	668.5	3.3	**	665.2	NA	NA	-
E1	1324000.870	3124292.860	668.5	1.9	2.1	666.6	666.4	0.2	-
E2	1323968.080	3124302.170	668.5	8.1	11.0	660.4	657.5	2.9	-
E3	1323933.010	3124312.130	668.5	8.1	10.9	660.4	657.6	2.8	-
E4	1323897.940	3124322.090	668.5	8.3	10.8	660.2	657.7	2.5	-
E5	**1323863.890**	**3124333.879**	**668.1**	**8.0**	**10.9**	**660.1**	**657.2**	**2.9**	**PCBs**
E6	1323827.810	3124342.020	668.5	7.8	11.0	660.7	657.5	3.2	-
E7	**1323793.352**	**3124354.131**	**668.2**	**7.9**	**10.5**	**660.3**	**657.7**	**2.6**	**PCBs**
E8	1323757.860	3124362.570	668.5	8.1	11.1	660.4	657.4	3.0	-
E9	1323723.110	3124373.520	668.5	8.3	10.9	660.2	657.6	2.6	-
E10	**1323694.036**	**3124381.718**	**668.3**	**8.1**	**10.7**	**660.2**	**657.7**	**2.6**	**PCBs**
E11	1323653.590	3124395.430	668.5	8.4	10.9	660.1	657.6	2.5	-
E12	**1323618.121**	**3124407.649**	**668.3**	**8.1**	**10.4**	**660.2**	**657.9**	**2.3**	**PCBs**
E13	1323584.080	3124417.350	668.5	8.3	10.8	660.2	657.7	2.5	-
E14	1323549.330	3124428.300	668.5	7.6	10.9	660.9	657.6	3.3	-
E15	1323514.790	3124439.190	668.5	1.8	3.2	666.7	665.3	1.4	-
F1	1324007.200	3124311.860	668.5	1.8	2.6	666.7	665.9	0.8	-
F2	**1323974.360**	**3124317.882**	**670.0**	**11.2**	**13.8**	**658.8**	**656.2**	**2.6**	**PCBs**
F3	1323939.030	3124331.220	668.5	8.3	11.1	660.2	657.4	2.8	-
F4	**1323907.274**	**3124341.680**	**668.4**	**8.1**	**10.7**	**660.3**	**657.7**	**2.6**	**PCBs**
F5	1323868.890	3124351.140	668.5	8.2	11.2	660.3	657.3	3.0	-
F6	**1323834.852**	**3124362.483**	**668.3**	**8.0**	**10.4**	**660.3**	**657.8**	**2.4**	**PCBs**
F7	1323798.750	3124371.070	668.5	8.1	11.0	660.4	657.5	2.9	-
F8	**1323766.933**	**3124381.409**	**668.2**	**8.0**	**10.9**	**660.2**	**657.3**	**2.9**	**PCBs**
F9	1323729.120	3124392.600	668.5	8.3	11.0	660.2	657.5	2.7	-
F10	1323694.370	3124403.560	668.5	8.5	11.2	660.0	657.3	2.7	-
F11	1323659.610	3124414.520	668.5	8.2	11.0	660.3	657.5	2.8	-
F12	1323624.850	3124425.470	668.5	8.2	11.1	660.3	657.4	2.9	-
F13	1323590.100	3124436.430	668.5	8.5	11.2	660.0	657.3	2.7	-
F14	1323555.340	3124447.380	668.5	7.7	10.6	660.8	657.9	2.9	-
F15	1323522.110	3124457.860	668.5	5.4	6.5	663.1	662.0	1.1	-
G1	1324011.600	3124331.410	668.5	2.1	3.1	666.4	665.4	1.0	-
G2	1323980.120	3124340.350	668.5	8.2	11.3	660.3	657.2	3.1	-
G3	**1323942.213**	**3124346.999**	**668.2**	**8.2**	**11.0**	**660.0**	**657.2**	**2.8**	**PCBs**
G4	1323909.980	3124360.270	668.5	8.2	10.9	660.3	657.6	2.7	-
G5	**1323876.812**	**3124370.476**	**668.2**	**7.8**	**11.2**	**660.4**	**657.0**	**3.4**	**PCBs**
G6	1323839.840	3124380.200	668.5	8.3	11.4	660.2	657.1	3.1	-
G7	1323804.770	3124390.160	668.5	8.2	11.0	660.3	657.5	2.8	-
G8	1323769.890	3124400.730	668.5	8.1	10.8	660.4	657.7	2.7	-
G9	**1323735.304**	**3124413.411**	**668.3**	**8.2**	**10.5**	**660.1**	**657.8**	**2.3**	**PCBs**
G10	1323700.380	3124422.640	668.5	8.3	11.4	660.2	657.1	3.1	-
G11	1323665.630	3124433.600	668.5	8.3	11.0	660.2	657.5	2.7	-
G12	**1323634.891**	**3124447.510**	**668.3**	**8.1**	**11.5**	**660.2**	**656.8**	**3.4**	**PCBs**
G13	1323596.110	3124455.510	668.5	8.5	11.4	660.0	657.1	2.9	-
G14	1323561.360	3124466.470	668.5	7.1	11.0	661.4	657.5	3.9	-

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Sediment Thickness and Vibracore Locations
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

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April 5-9, 2016

Coordinate System: US State Plane, NAD 83 (feet)
Zone: Indiana West **Vertical: NAVD88**

Location	Northing	Easting	Water Surface Elevation (ft AMSL)	Depth of water (ft)	Depth to bottom of sediment (ft)	Elevation of top of sediment (ft)	Elevation of bottom of sediment (ft AMSL)	Thickness of sediment (ft)	Sediment Sample Collected (PCB Analysis/ Grain Size)
G15	1323533.130	3124475.360	668.5	2.3	2.5	666.2	666.0	0.2	-
H1	1324012.540	3124351.940	668.5	2.5	4.3	666.0	664.2	1.8	-
H2	1323986.140	3124359.440	668.5	8.1	11.3	660.4	657.2	3.2	-
H3	1323951.070	3124369.400	668.5	8.3	11.6	660.2	656.9	3.3	-
H4	1323916.000	3124379.360	668.5	8.5	10.7	660.0	657.8	2.2	-
H5	1323880.930	3124389.330	668.5	8.3	10.8	660.2	657.7	2.5	-
H6	1323845.860	3124399.290	668.5	8.4	11.1	660.1	657.4	2.7	-
H7	**1323813.539**	**3124411.552**	**668.1**	**8.2**	**11.7**	**659.9**	**656.5**	**3.5**	**PCBs**
H8	1323775.910	3124419.810	668.5	8.5	11.3	660.0	657.2	2.8	-
H9	1323741.150	3124430.770	668.5	8.6	11.1	659.9	657.4	2.5	-
H10	1323706.400	3124441.730	668.5	8.5	11.1	660.0	657.4	2.6	-
H11	**1323672.454**	**3124456.300**	**668.1**	**7.9**	**10.5**	**660.2**	**657.7**	**2.6**	**PCBs**
H12	1323636.890	3124463.640	668.5	8.3	11.1	660.2	657.4	2.8	-
H13	1323602.130	3124474.590	668.5	8.5	11.1	660.0	657.4	2.6	-
H14	1323567.370	3124485.550	668.5	7.5	10.5	661.0	658.0	3.0	-
H15	1323552.130	3124490.350	668.5	2.1	5.0	666.4	663.5	2.9	-
I1	1324008.510	3124373.890	668.5	2.5	3.7	666.0	664.8	1.2	-
I2	**1323993.090**	**3124379.798**	**668.5**	**5.8**	**7.2**	**662.7**	**661.3**	**1.4**	**PCBs**
I3	1323957.090	3124388.490	668.5	8.8	11.1	659.7	657.4	2.3	-
I4	**1323921.312**	**3124399.277**	**668.2**	**7.9**	**10.8**	**660.3**	**657.4**	**2.9**	**PCBs**
I5	1323886.950	3124408.420	668.5	8.3	11.4	660.2	657.1	3.1	-
I6	**1323854.320**	**3124420.012**	**668.2**	**7.3**	**9.3**	**660.9**	**658.9**	**2.0**	**PCBs**
I7	1323816.810	3124428.340	668.5	8.8	11.5	659.7	657.0	2.7	-
I8	**1323783.953**	**3124438.196**	**668.1**	**8.2**	**10.8**	**659.9**	**657.3**	**2.6**	**PCBs**
I9	1323747.170	3124449.850	668.5	6.9	9.1	661.6	659.4	2.2	-
I10	**1323713.043**	**3124465.009**	**668.2**	**5.1**	**6.4**	**663.1**	**661.8**	**1.3**	**PCBs**
I11	1323677.660	3124471.760	668.5	5.8	8.5	662.7	660.0	2.7	-
I12	**1323641.910**	**3124482.738**	**668.3**	**3.8**	**4.9**	**664.5**	**663.4**	**1.1**	**PCBs**
I13	1323608.140	3124493.680	668.5	5.0	6.5	663.5	662.0	1.5	-
I14	1323571.900	3124499.920	668.5	1.9	5.1	666.6	663.4	3.2	-
J2	1323996.680	3124392.880	668.5	3.4	4.5	665.1	664.0	1.1	-
J3	1323957.930	3124408.750	668.5	4.6	5.8	663.9	662.7	1.2	-
J4	1323929.330	3124421.650	668.5	5.5	6.5	663.0	662.0	1.0	-
J5	1323893.250	3124428.410	668.5	4.1	5.5	664.4	663.0	1.4	-
J6	1323858.500	3124439.380	668.5	5.1	5.4	663.4	663.1	0.3	-
J7	1323822.140	3124445.260	668.5	4.2	6.3	664.3	662.2	2.1	-
J8	1323786.860	3124454.550	668.5	2.3	3.0	666.2	665.5	0.7	-
J9	1323751.720	3124464.280	668.5	6.3	8.1	662.2	660.4	1.8	-
J10	1323716.220	3124472.880	668.5	3.1	5.1	665.4	663.4	2.0	-
J11	1323680.840	3124481.850	668.5	1.6	2.4	666.9	666.1	0.8	-
J12	1323645.300	3124490.330	668.5	1.4	1.6	667.1	666.9	0.2	-
J13	1323609.610	3124498.330	668.5	2.0	2.7	666.5	665.8	0.7	-
GS1	**1323965.973**	**3124255.744**	**670.2**	**8.0**	**9.5**	**662.2**	**660.7**	**1.5**	**Grain Size**
GS2	**1323796.258**	**3124437.232**	**668.2**	**7.2**	**9.5**	**661.0**	**658.7**	**2.3**	**Grain Size**
GS3	**1323567.899**	**3124452.090**	**668.6**	**7.7**	**10.6**	**660.9**	**658.0**	**2.9**	**Grain Size**
GS4	**1323527.111**	**3124384.811**	**668.5**	**4.8**	**6.4**	**663.7**	**662.1**	**1.6**	**Grain Size**

Notes:

1. Data collected by Normandeau Associates, Inc. from April 5 to 9, 2016.

Table 3.1

Sediment Thickness and Vibracore Locations
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Survey Points: **Equipment**: Trimble R8-GNSS RTK
April 5-9, 2016

Coordinate System: US State Plane, NAD 83 (feet)
Zone: Indiana West **Vertical: NAVD88**

Location	Northing	Easting	Water Surface Elevation (ft AMSL)	Depth of water (ft)	Depth to bottom of sediment (ft)	Elevation of top of sediment (ft)	Elevation of bottom of sediment (ft AMSL)	Thickness of sediment (ft)	Sediment Sample Collected (PCB Analysis/ Grain Size)

2. **Locations in bold are vibracore locations with thickness based off of core logs.**
3. Bench 56 is the benchmark that all elevations are based off of.
** location on silt curtain skirt
AMSL - Above Mean Sea Level
ft - feet or foot
N/A - Not Applicable
PCB - Polychlorinated Biphenyl

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**A2**	**B1**	**B2**	**B2**	**B4**	**B6**	**B7**	**B8**	**B10**	**B12**
Sample ID:		**SE-040516-JN-001**	**SE-040516-JN-002**	**SE-040516-JN-003**	**SE-040516-JN-005**	**SE-040616-JN-009**	**SE-040616-JN-010**	**SE-040616-JN-011**	**SE-040616-JN-012**	**SE-040616-JN-013**	**SE-040616-JN-014**
Sample Date:		**4/5/2016**	**4/5/2016**	**4/5/2016**	**4/5/2016**	**4/6/2016**	**4/6/2016**	**4/6/2016**	**4/6/2016**	**4/6/2016**	**4/6/2016**
Sample Depth:		**(0-0.3) ft**	**(0-0.15) ft**	**(0-1) ft**	**(1-3) ft**	**(0-1.65) ft**	**(0-1.55) ft**	**(0-2.6) ft**	**(0-2.2) ft**	**(0-1.8) ft**	**(0-1.85) ft**
Area											
x_coord		**3124231.895**	**3124233.259**	**3124245.378**	**3124245.378**	**3124261.904**	**3124283.789**	**3124297.789**	**3124309.253**	**3124327.13**	**3124348.877**
y_coord		**1323947.237**	**1323959.88**	**1323949.072**	**1323949.072**	**1323880.12**	**1323808.617**	**1323781.099**	**1323740.874**	**1323670.025**	**1323600.464**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	5 U	9.3 U	4 U	29 U	3.5 U	35 U	6.6 U	34 U	1.4 U	1.5 U
Aroclor-1221 (PCB-1221)	mg/kg	5 U	9.3 U	4 U	29 U	3.5 U	160	6.6 U	34 U	1.4 U	1.5 U
Aroclor-1232 (PCB-1232)	mg/kg	5 U	9.3 U	4 U	29 U	3.5 U	35 U	6.6 U	34 U	1.4 U	1.5 U
Aroclor-1242 (PCB-1242)	mg/kg	17	9.3 U	22	370	3.5 U	35 U	46	130	12	7
Aroclor-1248 (PCB-1248)	mg/kg	5 U	39	4 U	29 U	26	70	6.6 U	34 U	1.4 U	1.5 U
Aroclor-1254 (PCB-1254)	mg/kg	5 U	9.3 U	4 U	42	3.5 U	35 U	6.6 U	34 U	2	1.5 U
Aroclor-1260 (PCB-1260)	mg/kg	5 U	9.3 U	4 U	29 U	3.5 U	35 U	6.6 U	34 U	1.4 U	1.5 U
Total PCBs	mg/kg	17	39	22	412	26	230	46	130	14	7

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**C2**	**C3**	**C3**	**C3**	**C5**	**C5**	**C9**	**D8**	**D11**	**E5**
Sample ID:		**SE-040516-JN-006**	**SE-040716-JN-018**	**SE-040716-JN-019**	**SE-040716-JN-020**	**SE-040716-JN-026**	**SE-040716-JN-027**	**SE-040816-JN-045**	**SE-040816-JN-040**	**SE-040816-JN-046**	**SE-040716-JN-025**
Sample Date:		**4/5/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/8/2016**	**4/8/2016**	**4/8/2016**	**4/7/2016**
Sample Depth:		**(0-1.7) ft**	**(0-2.5) ft**	**(0-2.5) ft**	**(2.5-3.37) ft**	**(0-1.7) ft**	**(1.7-3) ft**	**(0-2.55) ft**	**(0-2.7) ft**	**(0-2.23) ft**	**(0-2.85) ft**
				Duplicate							
Area											
x_coord		**3124269.624**	**3124275.9**	**3124275.9**	**3124275.9**	**3124303.199**	**3124303.199**	**3124332.145**	**3124345.78**	**3124379.508**	**3124333.879**
y_coord		**1323955.334**	**1323920.272**	**1323920.272**	**1323920.272**	**1323851.342**	**1323851.342**	**1323713.573**	**1323752.565**	**1323645.218**	**1323863.89**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	7.6 U	1.4 U	0.68 U	43 U	0.61 U	10 U	1.4 U	1.4 U	1.3 U	3.1 U
Aroclor-1221 (PCB-1221)	mg/kg	7.6 U	1.4 U	0.68 U	43 U	0.61 U	10 U	1.4 U	1.4 U	1.3 U	3.1 U
Aroclor-1232 (PCB-1232)	mg/kg	7.6 U	1.4 U	0.68 U	43 U	0.61 U	10 U	1.4 U	1.4 U	1.3 U	3.1 U
Aroclor-1242 (PCB-1242)	mg/kg	33	5.4	2.7	240	1.5	17	8.8	9.3	7.4	28
Aroclor-1248 (PCB-1248)	mg/kg	7.6 U	1.4 U	0.68 U	43 U	0.61 U	10 U	1.4 U	1.4 U	1.3 U	3.1 U
Aroclor-1254 (PCB-1254)	mg/kg	7.6 U	1.4 U	0.68 U	43 U	0.61 U	10 U	1.4 U	1.4 U	1.3 U	3.1 U
Aroclor-1260 (PCB-1260)	mg/kg	7.6 U	1.4 U	0.68 U	43 U	0.61 U	10 U	1.4 U	1.4 U	1.3 U	3.1 U
Total PCBs	mg/kg	33	5.4	2.7	240	1.5	17	8.8	9.3	7.4	28

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**E7**	**E10**	**E12**	**F2**	**F2**	**F4**	**F4**	**F6**	**F6**	**F6**
Sample ID:		**SE-040816-JN-039**	**SE-040816-JN-044**	**SE-040816-JN-050**	**SE-040516-JN-007**	**SE-040516-JN-008**	**SE-040716-JN-021**	**SE-040716-JN-022**	**SE-040716-JN-030**	**SE-040716-JN-031**	**SE-040716-JN-032**
Sample Date:		**4/8/2016**	**4/8/2016**	**4/8/2016**	**4/5/2016**	**4/5/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**
Sample Depth:		**(0-2.6) ft**	**(0-2.55) ft**	**(0-2.3) ft**	**(0-2.6) ft**	**(0-2.6) ft**	**(0-1.6) ft**	**(1.6-2.6) ft**	**(0-1.5) ft**	**(0-1.5) ft**	**(1.5-2.43) ft**
						Duplicate				**Duplicate**	
Area											
x_coord		**3124354.131**	**3124381.718**	**3124407.649**	**3124317.882**	**3124317.882**	**3124341.68**	**3124341.68**	**3124362.483**	**3124362.483**	**3124362.483**
y_coord		**1323793.352**	**1323694.036**	**1323618.121**	**1323974.36**	**1323974.36**	**1323907.274**	**1323907.274**	**1323834.852**	**1323834.852**	**1323834.852**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	7.1 U	3.3 U	7.3 U	7.2 U	7 U	0.062 U	78 U	0.3 U	0.69 U	7.5 U
Aroclor-1221 (PCB-1221)	mg/kg	7.1 U	3.3 U	7.3 U	7.2 U	7 U	0.062 U	78 U	0.3 U	0.69 U	7.5 U
Aroclor-1232 (PCB-1232)	mg/kg	7.1 U	3.3 U	7.3 U	7.2 U	7 U	0.062 U	78 U	0.3 U	0.69 U	7.5 U
Aroclor-1242 (PCB-1242)	mg/kg	60	19	24	48	26	0.37	620	0.73	2.3	58
Aroclor-1248 (PCB-1248)	mg/kg	7.1 U	3.3 U	7.3 U	7.2 U	7 U	0.062 U	78 U	0.3 U	0.69 U	7.5 U
Aroclor-1254 (PCB-1254)	mg/kg	7.1 U	3.3 U	7.3 U	7.2 U	7 U	0.062 U	78 U	0.3 U	0.69 U	7.5 U
Aroclor-1260 (PCB-1260)	mg/kg	7.1 U	3.3 U	7.3 U	7.2 U	7 U	0.062 U	78 U	0.3 U	0.69 U	7.5 U
Total PCBs	mg/kg	60	19	24	48	26	0.37	620	0.73	2.3	58

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**F8**	**G3**	**G3**	**G5**	**G9**	**G9**	**G12**	**H7**	**H11**	**H11**
Sample ID:		**SE-040816-JN-041**	**SE-040716-JN-023**	**SE-040716-JN-024**	**SE-040716-JN-033**	**SE-040816-JN-042**	**SE-040816-JN-043**	**SE-040816-JN-047**	**SE-040716-JN-036**	**SE-040816-JN-048**	**SE-040816-JN-049**
Sample Date:		**4/8/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/8/2016**	**4/8/2016**	**4/8/2016**	**4/7/2016**	**4/8/2016**	**4/8/2016**
Sample Depth:		**(0-2.9) ft**	**(0-1.6) ft**	**(1.6-2.8) ft**	**(0-3.4) ft**	**(0-2.3) ft**	**(0-2.3) ft**	**(0-3.4) ft**	**(0-3.45) ft**	**(0-2.55) ft**	**(0-2.55) ft**
							Duplicate				**Duplicate**
Area											
x_coord		**3124381.409**	**3124346.999**	**3124346.999**	**3124370.476**	**3124413.411**	**3124413.411**	**3124447.51**	**3124411.552**	**3124456.3**	**3124456.3**
y_coord		**1323766.933**	**1323942.213**	**1323942.213**	**1323876.812**	**1323735.304**	**1323735.304**	**1323634.891**	**1323813.539**	**1323672.454**	**1323672.454**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	1.5 U	3.8 U	160 U	32 U	3.4 U	3.3 U	1.4 U	3 U	1.4 U	3.2 U
Aroclor-1221 (PCB-1221)	mg/kg	1.5 U	3.8 U	160 U	32 U	3.4 U	3.3 U	1.4 U	3 U	1.4 U	3.2 U
Aroclor-1232 (PCB-1232)	mg/kg	1.5 U	3.8 U	160 U	32 U	3.4 U	3.3 U	1.4 U	3 U	1.4 U	3.2 U
Aroclor-1242 (PCB-1242)	mg/kg	13	16	1000	89	16	18	9.8	20	8.3	15
Aroclor-1248 (PCB-1248)	mg/kg	1.5 U	3.8 U	160 U	32 U	3.4 U	3.3 U	1.4 U	3 U	1.4 U	3.2 U
Aroclor-1254 (PCB-1254)	mg/kg	1.6	3.8 U	160 U	32 U	3.4 U	3.3 U	1.4 U	3 U	1.4 U	3.2 U
Aroclor-1260 (PCB-1260)	mg/kg	1.5 U	3.8 U	160 U	32 U	3.4 U	3.3 U	1.4 U	3 U	1.4 U	3.2 U
Total PCBs	mg/kg	14.6	16	1000	89	16	18	9.8	20	8.3	15

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**I2**	**I2**	**I4**	**I6**	**I8**	**I8**	**I10**	**I12**	**BANK1**	**BANK2**
Sample ID:		**SE-040616-JN-015**	**SE-040616-JN-016**	**SE-040716-JN-029**	**SE-040716-JN-028**	**SE-040716-JN-034**	**SE-040716-JN-035**	**SE-040716-JN-038**	**SE-040616-JN-017**	**SO-040916-JN-056**	**SO-040916-JN-058**
Sample Date:		**4/6/2016**	**4/6/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/7/2016**	**4/6/2016**	**4/9/2016**	**4/9/2016**
Sample Depth:		**(0-1.4) ft**	**(1.4-2.5) ft**	**(0-2.85) ft**	**(0-2) ft**	**(0-1.25) ft**	**(1.25-2.55) ft**	**(0-1.3) ft**	**(0-1.1) ft**	**(0-0.5) ft**	**(0-0.5) ft**
Area											
x_coord		**3124379.798**	**3124379.798**	**3124399.277**	**3124420.012**	**3124438.196**	**3124438.196**	**3124465.009**	**3124482.738**	**3124316.0534**	**3124281.7747**
y_coord		**1323993.09**	**1323993.09**	**1323921.312**	**1323854.32**	**1323783.953**	**1323783.953**	**1323713.043**	**1323641.91**	**1323578.5528**	**1323679.1216**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	0.78 U	5.4 U	1.4 U	0.71 U	0.32 U	15 U	0.35 U	0.58 U	0.043 U	0.44 U
Aroclor-1221 (PCB-1221)	mg/kg	0.78 U	5.4 U	1.4 U	0.71 U	0.32 U	15 U	0.35 U	0.69	0.043 U	0.44 U
Aroclor-1232 (PCB-1232)	mg/kg	0.78 U	5.4 U	1.4 U	0.71 U	0.32 U	15 U	0.35 U	0.58 U	0.043 U	0.44 U
Aroclor-1242 (PCB-1242)	mg/kg	5.9	40	7.4	5.7	1.2	84	2.2	0.58 U	0.043 U	0.44 U
Aroclor-1248 (PCB-1248)	mg/kg	0.78 U	5.4 U	1.4 U	0.71 U	0.32 U	15 U	0.35 U	6.8	0.043 U	0.44 U
Aroclor-1254 (PCB-1254)	mg/kg	1	5.4 U	1.4 U	1.2	0.41	15 U	0.46	0.58 U	0.12	0.85
Aroclor-1260 (PCB-1260)	mg/kg	0.78 U	5.4 U	1.4 U	0.71 U	0.32 U	15 U	0.35 U	0.68	0.043 U	0.44 U
Total PCBs	mg/kg	6.9	40	7.4	6.9	1.61	84	2.66	8.17	0.12	0.85

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**BANK3**	**BANK4**	**BANK5**	**BANK6**	**BANK7**	**BANK8**	**BANK8**	**BANK9**	**BANK10**	**BANK11**
Sample ID:		**SO-040916-JN-060**	**SO-040916-JN-063**	**SO-040916-JN-065**	**SO-040916-JN-067**	**SO-040916-JN-069**	**SO-040916-JN-071**	**SO-040916-JN-072**	**SO-040916-JN-074**	**SO-040916-JN-076**	**SO-040916-JN-078**
Sample Date:		**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**
Sample Depth:		**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**
								Duplicate			
Area											
x_coord		**3124243.3949**	**3124212.172**	**3124274.5892**	**3124336.9412**	**3124440.7919**	**3124460.664**	**3124460.664**	**3124491.4109**	**3124518.8296**	**3124507.5859**
y_coord		**1323797.1014**	**1323893.9763**	**1324019.5315**	**1324036.0857**	**1323949.5894**	**1323864.4414**	**1323864.4414**	**1323738.3947**	**1323631.9341**	**1323525.024**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	0.43 U	0.042 U	0.044 U	0.51 U	0.2 U	0.045 U	0.045 U	0.046 U	0.046 U	0.73 U
Aroclor-1221 (PCB-1221)	mg/kg	0.43 U	0.042 U	0.044 U	0.51 U	0.2 U	0.045 U	0.045 U	0.046 U	0.046 U	0.73 U
Aroclor-1232 (PCB-1232)	mg/kg	0.43 U	0.042 U	0.044 U	0.51 U	0.2 U	0.045 U	0.045 U	0.046 U	0.046 U	0.73 U
Aroclor-1242 (PCB-1242)	mg/kg	0.55	0.042 U	0.044 U	0.77	0.26	0.06	0.045 U	0.046 U	0.046 U	0.73 U
Aroclor-1248 (PCB-1248)	mg/kg	0.43 U	0.042 U	0.044 U	0.51 U	0.2 U	0.045 U	0.045 U	0.21	0.046 U	2.5
Aroclor-1254 (PCB-1254)	mg/kg	2.4	0.056	0.044 U	1.5	0.22	0.096	0.12	0.046 U	0.083	0.73 U
Aroclor-1260 (PCB-1260)	mg/kg	0.43 U	0.042 U	0.044 U	0.51 U	0.2 U	0.045 U	0.045 U	0.072	0.046 U	0.73 U
Total PCBs	mg/kg	2.95	0.056	0	2.27	0.48	0.156	0.12	0.282	0.083	2.5

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**BANK12**	**BANK12**	**Bank Point 1**	**Bank Point 2**	**Bank Point 3**	**Bank Point 4**	**Bank Point 5**	**Bank Point 6**	**Bank Point 7**	**Bank Point 8**
Sample ID:		**SO-040916-JN-080**	**SO-040916-JN-081**	**S-05062014-KC-001**	**S-05062014-KC-002**	**S-05062014-KC-003**	**S-05062014-KC-004**	**S-05062014-KC-005**	**S-05062014-KC-006**	**S-05062014-KC-007**	**S-05062014-KC-008**
Sample Date:		**4/9/2016**	**4/9/2016**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**
Sample Depth:		**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**
			Duplicate								
Area				**A010**	**A010**	**A010**	**A010**	**A010**	**A010**	**A010**	**A010**
x_coord		**3124415.1133**	**3124415.1133**	**3124360.72424**	**3124376.13870**	**3124358.63677**	**3124373.44359**	**3124346.99805**	**3124353.55012**	**3124384.99375**	**3124394.19630**
y_coord		**1323487.5455**	**1323487.5455**	**1323517.75634**	**1323511.17879**	**1323512.54626**	**1323505.58266**	**1323535.02269**	**1323527.67924**	**1323505.61747**	**1323502.02559**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	0.21 U	0.2 U	0.89 U	2.3 U	0.41 U	0.85 U	0.44 U	2.3 U	1.9 U	2.2 U
Aroclor-1221 (PCB-1221)	mg/kg	0.21 U	0.2 U	0.89 U	2.3 U	0.41 U	0.85 U	0.44 U	2.3 U	1.9 U	2.2 U
Aroclor-1232 (PCB-1232)	mg/kg	0.21 U	0.2 U	0.89 U	2.3 U	0.41 U	0.85 U	0.44 U	2.3 U	1.9 U	2.2 U
Aroclor-1242 (PCB-1242)	mg/kg	0.21 U	0.2 U	4.9	14	0.41 U	7.6	1.3	18	13	8.1
Aroclor-1248 (PCB-1248)	mg/kg	0.69	0.37	0.89 U	2.3 U	4.1	0.85 U	0.44 U	2.3 U	1.9 U	2.2 U
Aroclor-1254 (PCB-1254)	mg/kg	0.21 U	0.2 U	0.89 U	2.3 U	0.41 U	0.85 U	0.44 U	2.3 U	1.9 U	2.2 U
Aroclor-1260 (PCB-1260)	mg/kg	0.21 U	0.2 U	0.89 U	2.3 U	0.41 U	0.85 U	0.44 U	2.3 U	1.9 U	2.2 U
Total PCBs	mg/kg	0.69	0.37	4.9	14	4.1	7.6	1.3	18	13	8.1

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**Bank Point 9**	**SHORE1R**	**SHORE2R**	**SHORE3R**	**SHORE3R**	**SHORE4R**	**SHORE5R**	**SHORE6R**	**SHORE7R**	**SHORE8R**
Sample ID:		**S-05062014-KC-009**	**SO-040916-JN-057**	**SO-040916-JN-059**	**SO-040916-JN-061**	**SO-040916-JN-062**	**SO-040916-JN-064**	**SO-040916-JN-066**	**SO-040916-JN-068**	**SO-040916-JN-070**	**SO-040916-JN-073**
Sample Date:		**5/6/2014**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**
Sample Depth:		**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**
						Duplicate					
Area		**A010**									
x_coord		**3124402.69423**	**3124326.572**	**3124290.622**	**3124252.351**	**3124252.351**	**3124224.235**	**3124276.54**	**3124338.041**	**3124429.898**	**3124451.478**
y_coord		**1323499.21439**	**1323581.334**	**1323683.675**	**1323798.957**	**1323798.957**	**1323896.042**	**1324009.43**	**1324026.6**	**1323948.429**	**1323861.12**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	2.3 U	0.46 U	0.23 U	0.23 U	0.22 U	0.24 U	0.22 U	0.23 U	0.24 U	0.045 U
Aroclor-1221 (PCB-1221)	mg/kg	2.3 U	0.46 U	0.23 U	0.23 U	0.22 U	0.24 U	0.22 U	0.23 U	0.24 U	0.045 U
Aroclor-1232 (PCB-1232)	mg/kg	2.3 U	0.46 U	0.23 U	0.23 U	0.22 U	0.24 U	0.22 U	0.23 U	0.24 U	0.045 U
Aroclor-1242 (PCB-1242)	mg/kg	2.3 U	2	0.58	0.67	0.57	0.5	0.29	0.5	0.68	0.045 U
Aroclor-1248 (PCB-1248)	mg/kg	9.5	0.46 U	0.23 U	0.23 U	0.22 U	0.24 U	0.22 U	0.23 U	0.24 U	0.17 P
Aroclor-1254 (PCB-1254)	mg/kg	2.3 U	0.46 U	0.42	0.32	0.22	0.29	0.22 U	0.52	0.55	0.045 U
Aroclor-1260 (PCB-1260)	mg/kg	2.3 U	0.46 U	0.23 U	0.23 U	0.22 U	0.24 U	0.22 U	0.23 U	0.24 U	0.045 U
Total PCBs	mg/kg	9.5	2	1	0.99	0.79	0.79	0.29	1.02	1.23	0.17 p

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Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**SHORE9R**	**SHORE10R**	**SHORE11R**	**SHORE12R**	**Grid A1**	**Grid A6**	**Grid A7**	**Grid B7**	**Grid C7**	**Grid D1**
Sample ID:		**SO-040916-JN-075**	**SO-040916-JN-077**	**SO-040916-JN-079**	**SO-040916-JN-082**	**S-05072014-KC-020**	**S-05062014-KC-019**	**S-05062014-KC-013**	**S-05062014-KC-014**	**S-05062014-KC-015**	**S-05072014-KC-021**
Sample Date:		**4/9/2016**	**4/9/2016**	**4/9/2016**	**4/9/2016**	**5/8/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/8/2014**
Sample Depth:		**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-0.5) ft**	**(0-1.17) ft**	**(0-1.04) ft**	**(0-0.88) ft**	**(0-1.21) ft**	**(0-1.21) ft**	**(0-0.25) ft**
Area						**A010**	**A010**	**A010**	**A010**	**A010**	**A010**
x_coord		**3124482.14**	**3124508.939**	**3124496.422**	**3124415.158**	**3124364.1116**	**3124364.1116**	**3124364.1116**	**3124374.1116**	**3124384.1116**	**3124394.1116**
y_coord		**1323735.378**	**1323627.743**	**1323531.502**	**1323495.805**	**1323593.7382**	**1323543.7382**	**1323533.7382**	**1323533.7382**	**1323533.7382**	**1323593.7382**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	0.047 U	0.44 U	0.97 U	2.3 U	13 U	9 U	25 U	9.7 U	6.5 U	3.2 U
Aroclor-1221 (PCB-1221)	mg/kg	0.047 U	0.44 U	0.97 U	2.3 U	13 U	9 U	25 U	9.7 U	6.5 U	3.2 U
Aroclor-1232 (PCB-1232)	mg/kg	0.047 U	0.44 U	0.97 U	2.3 U	13 U	9 U	25 U	9.7 U	6.5 U	3.2 U
Aroclor-1242 (PCB-1242)	mg/kg	0.047 U	0.44 U	0.97 U	2.3 U	38	69	200	62	20	16
Aroclor-1248 (PCB-1248)	mg/kg	0.2 P	0.93	6	14	13 U	9 U	25 U	9.7 U	6.5 U	3.2 U
Aroclor-1254 (PCB-1254)	mg/kg	0.047 U	0.44 U	0.97 U	2.3 U	13 U	9 U	25 U	9.7 U	6.5 U	3.2 U
Aroclor-1260 (PCB-1260)	mg/kg	0.047 U	0.44 U	0.97 U	2.3 U	13 U	9 U	25 U	9.7 U	6.5 U	3.2 U
Total PCBs	mg/kg	0.2 p	0.93	6	14	38	69	200	62	20	16

Notes:
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J - Estimated concentration.
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Table 3.2

Analytical Sampling Results Summary
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**Grid D7**	**Grid D8**	**Grid E7**	**Grid E8**	**Grid F1**	**Grid F7**	**Grid F8**	**Grid G2**	**Grid G3**	**Grid G6**
Sample ID:		**S-05062014-KC-016**	**S-05062014-KC-010**	**S-05062014-KC-017**	**S-05062014-KC-011**	**S-05072014-KC-022**	**S-05062014-KC-018**	**S-05062014-KC-012**	**S-05072014-KC-023**	**S-05072014-KC-024**	**S-05072014-KC-025**
Sample Date:		**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/8/2014**	**5/6/2014**	**5/6/2014**	**5/8/2014**	**5/8/2014**	**5/8/2014**
Sample Depth:		**(0-1.13) ft**	**(0-0.88) ft**	**(0-0.25) ft**	**(0-0.79) ft**	**(0-1.17) ft**	**(0-1.67) ft**	**(0-0.83) ft**	**(0-1.17) ft**	**(0-1) ft**	**(0-1.17) ft**
Area		**A010**	**A010**	**A010**	**A010**	**A010**	**A010**	**A010**	**A010**	**A010**	**A010**
x_coord		**3124394.1116**	**3124394.1116**	**3124404.1116**	**3124404.1116**	**3124414.1116**	**3124414.1116**	**3124414.1116**	**3124439.1116**	**3124439.1116**	**3124439.1116**
y_coord		**1323533.7382**	**1323523.7382**	**1323533.7382**	**1323523.7382**	**1323593.7382**	**1323533.7382**	**1323523.7382**	**1323583.7382**	**1323573.7382**	**1323543.7382**
	Units										
PCBs											
Aroclor-1016 (PCB-1016)	mg/kg	0.58 U	5.5 U	3.6 U	5 U	3.2 U	13 U	6.3 U	14 U	35 U	68 U
Aroclor-1221 (PCB-1221)	mg/kg	0.58 U	5.5 U	3.6 U	5 U	3.2 U	13 U	6.3 U	14 U	35 U	68 U
Aroclor-1232 (PCB-1232)	mg/kg	0.58 U	5.5 U	3.6 U	5 U	3.2 U	13 U	6.3 U	14 U	35 U	68 U
Aroclor-1242 (PCB-1242)	mg/kg	3.7	19	14	8.5	17	49	31	50	88	280
Aroclor-1248 (PCB-1248)	mg/kg	0.58 U	5.5 U	3.6 U	5 U	3.2 U	13 U	6.3 U	14 U	35 U	68 U
Aroclor-1254 (PCB-1254)	mg/kg	0.58 U	5.5 U	3.6 U	5 U	3.2 U	13 U	6.3 U	14 U	35 U	68 U
Aroclor-1260 (PCB-1260)	mg/kg	0.58 U	5.5 U	3.6 U	5 U	3.2 U	13 U	6.3 U	14 U	35 U	68 U
Total PCBs	mg/kg	3.7	19	14	8.5	17	49	31	50	88	280

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.3

Waste Characterization Analytical Sampling Results
Basis of Design (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:			**W1**	**W2**	**W3**
Sample Identification:		RCRA	**SE-040816-JN-052**	**SE-040816-JN-053**	**SE-040816-JN-054**
Sample Date:			**4/8/2016**	**4/8/2016**	**4/8/2016**
	Units	**a**			
Polychlorinated biphenyl (PCBs)					
Aroclor-1016 (PCB-1016)	mg/kg		34 U	7.1 U	7.2 U
Aroclor-1221 (PCB-1221)	mg/kg		34 U	7.1 U	7.2 U
Aroclor-1232 (PCB-1232)	mg/kg		34 U	7.1 U	7.2 U
Aroclor-1242 (PCB-1242)	mg/kg		76	57	68
Aroclor-1248 (PCB-1248)	mg/kg		34 U	7.1 U	7.2 U
Aroclor-1254 (PCB-1254)	mg/kg		34 U	7.1 U	7.2 U
Aroclor-1260 (PCB-1260)	mg/kg		34 U	7.1 U	7.2 U
Total PCBs	mg/kg		76	57	68
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	mg/kg		0.011 U	0.011 U	0.011 U
1,1,2,2-Tetrachloroethane	mg/kg		0.011 U	0.011 U	0.011 U
1,1,2-Trichloroethane	mg/kg		0.011 U	0.011 U	0.011 U
1,1-Dichloroethane	mg/kg		0.011 U	0.011 U	0.011 U
1,1-Dichloroethene	mg/kg		0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	mg/kg		0.011 U	0.011 U	0.011 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg		0.021 U	0.022 U	0.021 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg		0.011 U	0.011 U	0.011 U
1,2-Dichlorobenzene	mg/kg		0.011 U	0.011 U	0.011 U
1,2-Dichloroethane	mg/kg		0.011 U	0.011 U	0.011 U
1,2-Dichloropropane	mg/kg		0.011 U	0.011 U	0.011 U
1,3-Dichlorobenzene	mg/kg		0.011 U	0.011 U	0.011 U
1,4-Dichlorobenzene	mg/kg		0.011 U	0.011 U	0.011 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg		0.042 U	0.043 U	0.043 U
2-Hexanone	mg/kg		0.042 U	0.043 U	0.043 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg		0.042 U	0.043 U	0.043 U
Acetone	mg/kg		0.083	0.096	0.11
Benzene	mg/kg		0.011 U	0.011 U	0.011 U
Bromodichloromethane	mg/kg		0.011 U	0.011 U	0.011 U
Bromoform	mg/kg		0.011 U	0.011 U	0.011 U
Bromomethane (Methyl bromide)	mg/kg		0.011 U	0.011 U	0.011 U
Carbon disulfide	mg/kg		0.011 U	0.011 U	0.011 U
Carbon tetrachloride	mg/kg		0.011 U	0.011 U	0.011 U
Chlorobenzene	mg/kg		0.011 U	0.011 U	0.011 U
Chloroethane	mg/kg		0.011 U	0.011 U	0.011 U
Chloroform (Trichloromethane)	mg/kg		0.011 U	0.011 U	0.011 U
Chloromethane (Methyl chloride)	mg/kg		0.011 U	0.011 U	0.011 U
cis-1,2-Dichloroethene	mg/kg		0.011 U	0.011 U	0.011 U
cis-1,3-Dichloropropene	mg/kg		0.011 U	0.011 U	0.011 U
Cyclohexane	mg/kg		0.021 U	0.022 U	0.021 U
Dibromochloromethane	mg/kg		0.011 U	0.011 U	0.011 U
Dichlorodifluoromethane (CFC-12)	mg/kg		0.011 U	0.011 U	0.011 U
Ethylbenzene	mg/kg		0.011 U	0.011 U	0.011 U
Isopropyl benzene	mg/kg		0.021	0.034	0.034
Methyl acetate	mg/kg		0.021 U	0.022 U	0.021 U
Methyl cyclohexane	mg/kg		0.021 U	0.022 U	0.021 U
Methyl tert butyl ether (MTBE)	mg/kg		0.011 U	0.011 U	0.011 U
Methylene chloride	mg/kg		0.013	0.014	0.015
Styrene	mg/kg		0.011 U	0.011 U	0.011 U
Tetrachloroethene	mg/kg		0.011 U	0.011 U	0.011 U
Toluene	mg/kg		0.011 U	0.011 U	0.011 U
trans-1,2-Dichloroethene	mg/kg		0.011 U	0.011 U	0.011 U
trans-1,3-Dichloropropene	mg/kg		0.011 U	0.011 U	0.011 U
Trichloroethene	mg/kg		0.011 U	0.011 U	0.011 U
Trichlorofluoromethane (CFC-11)	mg/kg		0.011 U	0.011 U	0.011 U
Trifluorotrichloroethane (CFC-113)	mg/kg		0.011 U	0.011 U	0.011 U
Vinyl chloride	mg/kg		0.011 U	0.011 U	0.011 U
Xylenes (total)	mg/kg		0.021 U	0.022 U	0.021 U

Table 3.3

Waste Characterization Analytical Sampling Results
Basis of Design (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:			**W1**	**W2**	**W3**
Sample Identification:		RCRA	**SE-040816-JN-052**	**SE-040816-JN-053**	**SE-040816-JN-054**
Sample Date:			**4/8/2016**	**4/8/2016**	**4/8/2016**
	Units	**a**			
Semi-Volatile Organic Compounds (SVOCs)					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg		1.1 U	1.1 U	1.1 U
2,4,5-Trichlorophenol	mg/kg		1.6 U	1.6 U	1.7 U
2,4,6-Trichlorophenol	mg/kg		1.6 U	1.6 U	1.7 U
2,4-Dichlorophenol	mg/kg		1.6 U	1.6 U	1.7 U
2,4-Dimethylphenol	mg/kg		1.6 U	1.6 U	1.7 U
2,4-Dinitrophenol	mg/kg		3.5 U	3.5 U	3.7 U
2,4-Dinitrotoluene	mg/kg		2.1 U	2.1 U	2.2 U
2,6-Dinitrotoluene	mg/kg		2.1 U	2.1 U	2.2 U
2-Chloronaphthalene	mg/kg		0.53 U	0.53 U	0.55 U
2-Chlorophenol	mg/kg		0.53 U	0.53 U	0.55 U
2-Methylnaphthalene	mg/kg		0.07 U	0.071 U	0.074 U
2-Methylphenol	mg/kg		2.1 U	2.1 U	2.2 U
2-Nitroaniline	mg/kg		2.1 U	2.1 U	2.2 U
2-Nitrophenol	mg/kg		0.53 U	0.53 U	0.55 U
3&4-Methylphenol	mg/kg		4.2 U	4.3 U	4.4 U
3,3'-Dichlorobenzidine	mg/kg		1.1 U	1.1 U	1.1 U
3-Nitroaniline	mg/kg		2.1 U	2.1 U	2.2 U
4,6-Dinitro-2-methylphenol	mg/kg		1.6 U	1.6 U	1.7 U
4-Bromophenyl phenyl ether	mg/kg		0.53 U	0.53 U	0.55 U
4-Chloro-3-methylphenol	mg/kg		1.6 U	1.6 U	1.7 U
4-Chloroaniline	mg/kg		1.6 U	1.6 U	1.7 U
4-Chlorophenyl phenyl ether	mg/kg		0.53 U	0.53 U	0.55 U
4-Nitroaniline	mg/kg		2.1 U	2.1 U	2.2 U
4-Nitrophenol	mg/kg		3.5 U	3.5 U	3.7 U
Acenaphthene	mg/kg		0.34	0.54	0.47
Acenaphthylene	mg/kg		0.07 U	0.071 U	0.074 U
Acetophenone	mg/kg		1.1 U	1.1 U	1.1 U
Anthracene	mg/kg		0.22	0.56	0.27
Atrazine	mg/kg		2.1 U	2.1 U	2.2 U
Benzaldehyde	mg/kg		1.1 U	1.1 U	1.1 U
Benzo(a)anthracene	mg/kg		0.93	2	1.1
Benzo(a)pyrene	mg/kg		1.1	1.9	1.3
Benzo(b)fluoranthene	mg/kg		1.9	3	2.3
Benzo(g,h,i)perylene	mg/kg		0.92	1.2	0.94
Benzo(k)fluoranthene	mg/kg		0.68	1.3	0.83
Biphenyl (1,1-Biphenyl)	mg/kg		0.53 U	0.53 U	0.55 U
bis(2-Chloroethoxy)methane	mg/kg		1.1 U	1.1 U	1.1 U
bis(2-Chloroethyl)ether	mg/kg		1.1 U	1.1 U	1.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg		2.1	2.2	2.3
Butyl benzylphthalate (BBP)	mg/kg		0.74 U	0.75 U	0.78 U
Caprolactam	mg/kg		3.5 U	3.5 U	3.7 U
Carbazole	mg/kg		0.53 U	0.53 U	0.55 U
Chrysene	mg/kg		1.5	2.5	1.7
Dibenz(a,h)anthracene	mg/kg		0.18	0.27	0.21
Dibenzofuran	mg/kg		0.53 U	0.53 U	0.55 U
Diethyl phthalate	mg/kg		0.74 U	0.75 U	0.78 U
Dimethyl phthalate	mg/kg		0.74 U	0.75 U	0.78 U
Di-n-butylphthalate (DBP)	mg/kg		0.74 U	0.75 U	0.78 U
Di-n-octyl phthalate (DnOP)	mg/kg		0.74 U	0.75 U	0.78 U
Fluoranthene	mg/kg		2.9	5.5	3.4
Fluorene	mg/kg		0.14	0.28	0.16
Hexachlorobenzene	mg/kg		0.07 U	0.071 U	0.074 U
Hexachlorobutadiene	mg/kg		0.53 U	0.53 U	0.55 U
Hexachlorocyclopentadiene	mg/kg		3.5 U	3.5 U	3.7 U
Hexachloroethane	mg/kg		0.53 U	0.53 U	0.55 U
Indeno(1,2,3-cd)pyrene	mg/kg		0.72	1.1	0.82
Isophorone	mg/kg		0.53 U	0.53 U	0.55 U
Naphthalene	mg/kg		0.07 U	0.086	0.074 U
Nitrobenzene	mg/kg		1.1 U	1.1 U	1.1 U
N-Nitrosodi-n-propylamine	mg/kg		0.53 U	0.53 U	0.55 U
N-Nitrosodiphenylamine	mg/kg		0.53 U	0.53 U	0.55 U
Pentachlorophenol	mg/kg		1.6 U	1.6 U	1.7 U
Phenanthrene	mg/kg		1.3	2.9	1.5
Phenol	mg/kg		0.53 U	0.53 U	0.55 U
Pyrene	mg/kg		2.4	4.4	2.7

Table 3.3

Waste Characterization Analytical Sampling Results
Basis of Design (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:			**W1**	**W2**	**W3**
Sample Identification:		RCRA	**SE-040816-JN-052**	**SE-040816-JN-053**	**SE-040816-JN-054**
Sample Date:			**4/8/2016**	**4/8/2016**	**4/8/2016**
	Units	**a**			
Metals					
Arsenic	mg/kg		8.8	8.8	8.8
Barium	mg/kg		81	83	76
Cadmium	mg/kg		1.7	1.6	1.5
Chromium	mg/kg		30	30	29
Lead	mg/kg		74	66	64
Mercury	mg/kg		0.19 U	0.21 U	0.21 U
Selenium	mg/kg		0.98 U	1.0	0.97 U
Silver	mg/kg		5.1	5.2	4.9
TCLP-Volatile Organic Compounds (VOCs)					
1,1-Dichloroethene	mg/L	0.7	0.025 U	0.025 U	0.025 U
1,2-Dichloroethane	mg/L	0.5	0.025 U	0.025 U	0.025 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	200	0.25 U	0.25 U	0.25 U
Benzene	mg/L	0.5	0.025 U	0.025 U	0.025 U
Carbon tetrachloride	mg/L	0.5	0.025 U	0.025 U	0.025 U
Chlorobenzene	mg/L	100	0.025 U	0.025 U	0.025 U
Chloroform (Trichloromethane)	mg/L	6	0.025 U	0.025 U	0.025 U
Tetrachloroethene	mg/L	0.7	0.025 U	0.070	0.025 U
Trichloroethene	mg/L	0.5	0.025 U	0.025 U	0.025 U
Vinyl chloride	mg/L	0.2	0.025 U	0.025 U	0.025 U
TCLP-Semi-Volatile Organic Compounds (SVOCs)					
1,4-Dichlorobenzene	mg/L	7.5	0.0040 U	0.0040 U	0.0040 U
2,4,5-Trichlorophenol	mg/L	400	0.0040 U	0.0040 U	0.0040 U
2,4,6-Trichlorophenol	mg/L	2	0.0040 U	0.0040 U	0.0040 U
2,4-Dinitrotoluene	mg/L	0.13	0.0040 U	0.0040 U	0.0040 U
2-Methylphenol	mg/L	200	0.0040 U	0.0040 U	0.0040 U
3&4-Methylphenol	mg/L	200	0.0040 U	0.0040 U	0.0040 U
Hexachlorobenzene	mg/L	0.13	0.00080 U	0.00080 U	0.00080 U
Hexachlorobutadiene	mg/L	0.5	0.0040 U	0.0040 U	0.0040 U
Hexachloroethane	mg/L	3	0.0040 U	0.0040 U	0.0040 U
Nitrobenzene	mg/L	2	0.0040 U	0.0040 U	0.0040 U
Pentachlorophenol	mg/L	100	0.016 U	0.016 U	0.016 U
Pyridine	mg/L	5	0.0040 U	0.0040 U	0.0040 U
TCLP-Metals					
Arsenic	mg/L	5	0.50 U	0.50 U	0.50 U
Barium	mg/L	100	10 U	10 U	10 U
Cadmium	mg/L	1	0.10 U	0.10 U	0.10 U
Chromium	mg/L	5	0.50 U	0.50 U	0.50 U
Lead	mg/L	5	0.50 U	0.50 U	0.50 U
Mercury	mg/L	0.2	0.0020 U	0.0020 U	0.0020 U
Selenium	mg/L	1	0.25 U	0.25 U	0.25 U
Silver	mg/L	5	0.50 U	0.50 U	0.50 U

Notes:

U - Not detected at the associated reporting limit.
TCLP - Toxicity Characteristic Leaching Procedure
RCRA -Resource Conservation Recovery Act (RCRA) criteria for the toxicity characteristic (40 CFR 261.24).

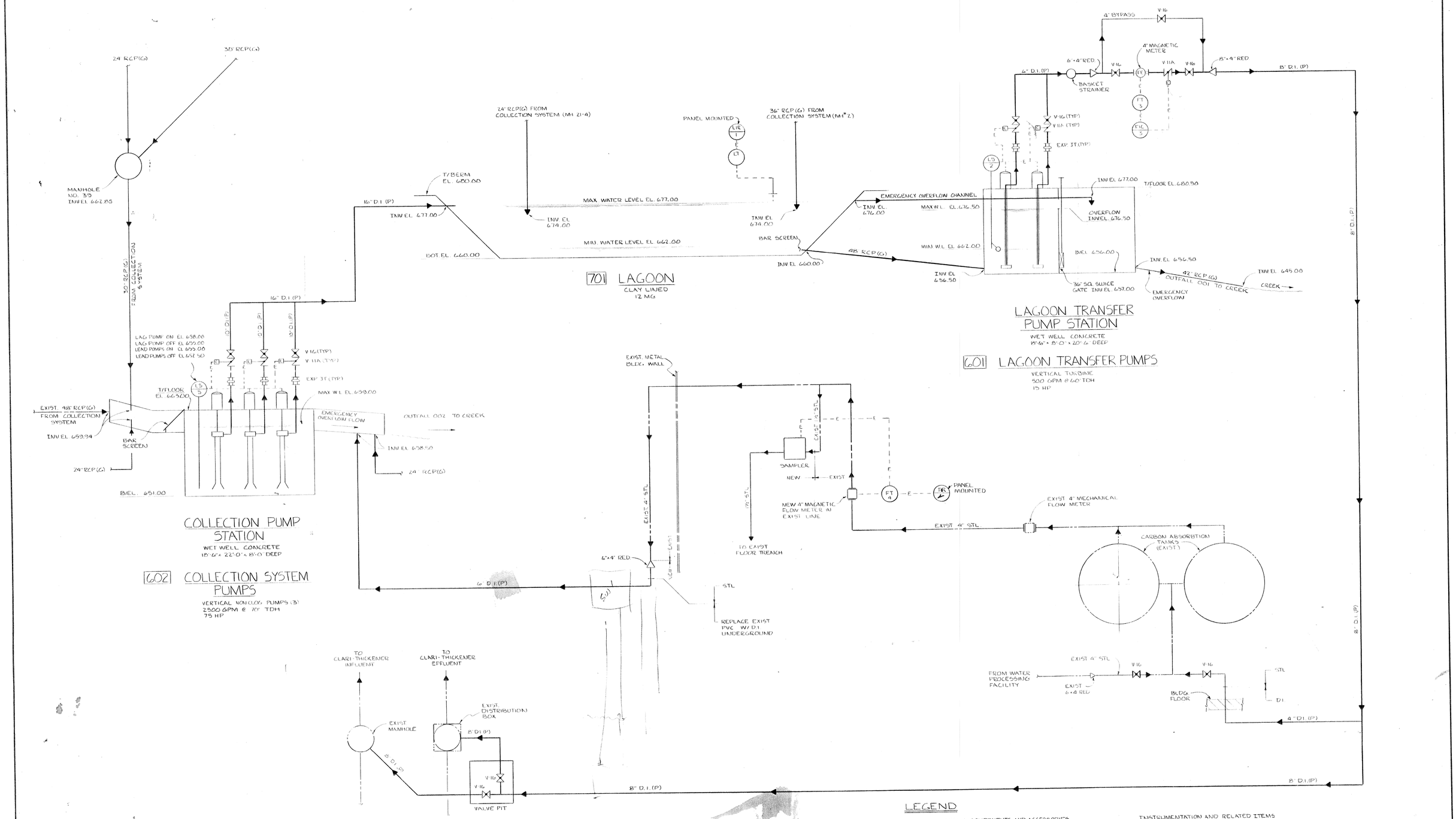
Table 3.4

Grain Size Analysis
Basis of Design Report (30% Design Report)
GM CET Bedford Facility
Bedford, Indiana

Sample Location:		**GS1**	**GS2**	**GS3**	**GS4**
Sample ID:		**SE-040516-JN-004**	**SE-040716-JN-037**	**SE-040816-JN-051**	**SE-040916-JN-055**
Sample Date:		**4/5/2016**	**4/7/2016**	**4/8/2016**	**4/9/2016**
Sample Depth:		**(0-1.5) ft**	**(0-2.3) ft**	**(0-2.9) ft**	**(0-2) ft**
Area					
x_coord		**3124255.744**	**3124437.232**	**3124452.09**	**3124384.811**
y_coord		**1323965.973**	**1323796.258**	**1323567.899**	**1323527.111**
	Units				
Geotech					
#10 sieve	% passed	96.8	96.3	89.7	99.3
#100 sieve	% passed	58.0	82.2	79.1	86.5
#20 sieve	% passed	92.5	94.2	87.4	97.6
#200 sieve	% passed	53.3	76.0	75.4	80.1
#4 sieve	% passed	100.0	98.0	93.8	100.0
#40 sieve	% passed	80.4	91.1	84.8	94.7
#60 sieve	% passed	65.7	87.2	81.8	91.0
#80 sieve	% passed	60.3	84.3	80.1	88.5
0.375 inch sieve	% passed	100.0	98.6	100.0	100.0
0.75 inch sieve	% passed	100.0	100.0	100.0	100.0
1 inch sieve	% passed	100.0	100.0	100.0	100.0
1.5 inch sieve	% passed	100.0	100.0	100.0	100.0
2 inch sieve	% passed	100.0	100.0	100.0	100.0
3 inch sieve	% passed	100.0	100.0	100.0	100.0
Clay	%	19.5	32.5	31.6	26.5
Coarse sand	%	3.2	1.7	4.1	0.7
Fine sand	%	27.1	15.1	9.4	14.6
Gravel	%	0.0	2.0	6.2	0.0
Hydrometer 1 for particle size distribution	% passed	35.5	52.9	63.8	53.8
Hydrometer 2 for particle size distribution	% passed	30.7	49.6	58.4	45.6
Hydrometer 3 for particle size distribution	% passed	25.9	41.5	48.8	36.1
Hydrometer 4 for particle size distribution	% passed	21.9	36.6	39.1	29.3
Hydrometer 5 for particle size distribution	% passed	19.5	32.5	31.6	26.5
Hydrometer 6 for particle size distribution	% passed	13.9	26.3	20.6	19.4
Hydrometer 7 for particle size distribution	% passed	10.8	20.6	16.1	15.0
Medium sand	%	16.4	5.2	4.9	4.6
Sand	%	46.7	22.0	18.4	19.9
Silt	%	33.8	43.5	43.8	53.6

Appendices

Appendix A
Engineering Drawings of Storm Lagoon and Lagoon Pump Station, The Chester Engineers, December 1980



EQUIPMENT NUMBERS

600 PUMPS
700 TANKS

PIPING AND TUBING MATERIALS

DI - DUCTILE IRON PIPE
RCP - REINFORCED CONCRETE PIPE
STL - STEEL
CMP - CORRUGATED METAL PIPE

PIPING ROUTING

EXAMPLE
2-3" STL (P) TWO 3" STEEL PIPES (PRESSURE)
602/T17 FROM PUMP 602 TO TANK 117
G GRAVITY
P PRESSURE

LEGEND

FLOWS AND LINES

- NEW MAIN FLOW
- EXIST. MAIN FLOW
- NEW SECONDARY FLOW
- E — ELECTRICAL
- PROPOSED FACILITIES
- EXISTING FACILITIES

VALVES

- BUTTERFLY-ELECTRICALLY OPERATED
- CHECK
- PLUG

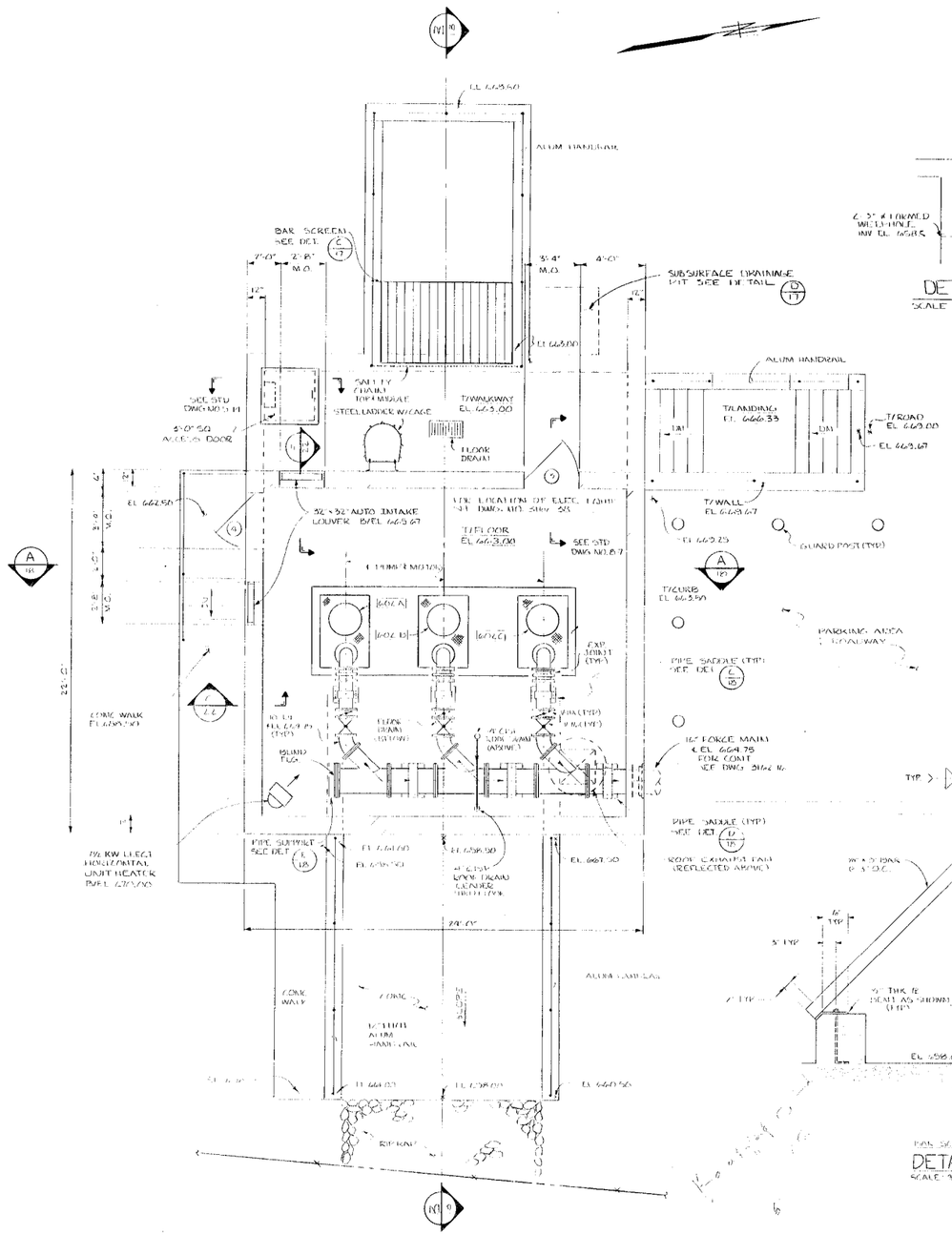
PIPING COMPONENTS AND ACCESSORIES

- EXPANSION JOINT OR FLEXIBLE CONNECTION
- FLANGED CONNECTION
- STL — D1 PIPING MATERIAL CHANGE
- REDUCER

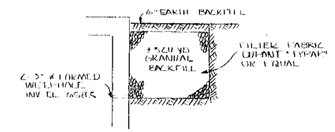
INSTRUMENTATION AND RELATED ITEMS

- MAGNETIC METER
- SONIC LEVEL PROBE
- LOCAL INSTRUMENT
- PANEL MOUNTED INSTRUMENT
- P PRESSURE GAGE

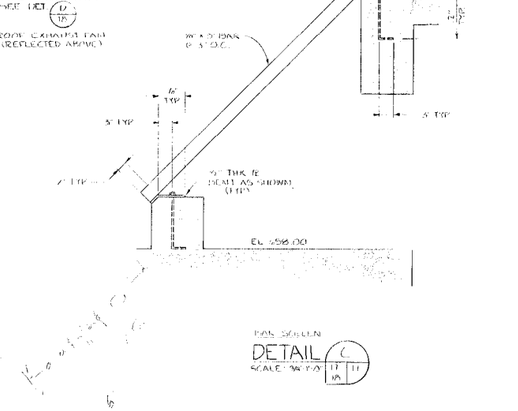
DRAWN BY ECC	SCALE: NONE	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	THE CHESTER ENGINEERS	CENTRAL FOUNDRY DIVISION GENERAL MOTORS CORPORATION BEDFORD PLANT BEDFORD, INDIANA STORM WATER COLLECTION AND REUSE FACILITIES	FLOW DIAGRAM	DWG.NO. 3162-01
CHECKED BY TFS & JBM		1	12-8-80	ISSUED FOR BID	5			9			ENGINEERS • ARCHITECTS • PLANNERS			SHEET NO. 1 of 46
APPROVED BY AFD & DAF	DATE DECEMBER 1980	2			6			10			Pittsburgh • Ann Arbor • Atlanta • Dallas • Kingston • Nashville • Philadelphia			
		3			7			11						
		4			8			12						



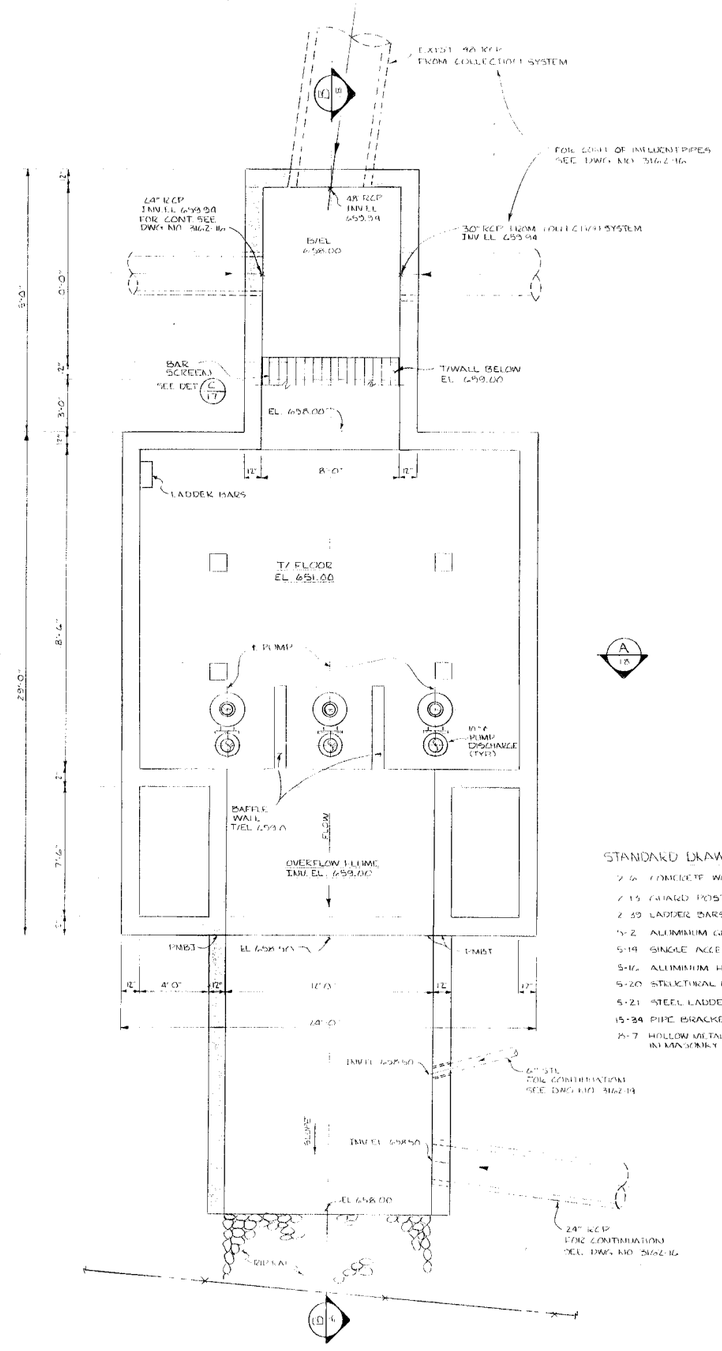
MAIN FLOOR PLAN (A/17)
SCALE: 1/4"=1'-0"



DETAIL (D/17)
SCALE: 1/4"=1'-0"



FAN SCREEN
DETAIL (C/17)
SCALE: 1/4"=1'-0"

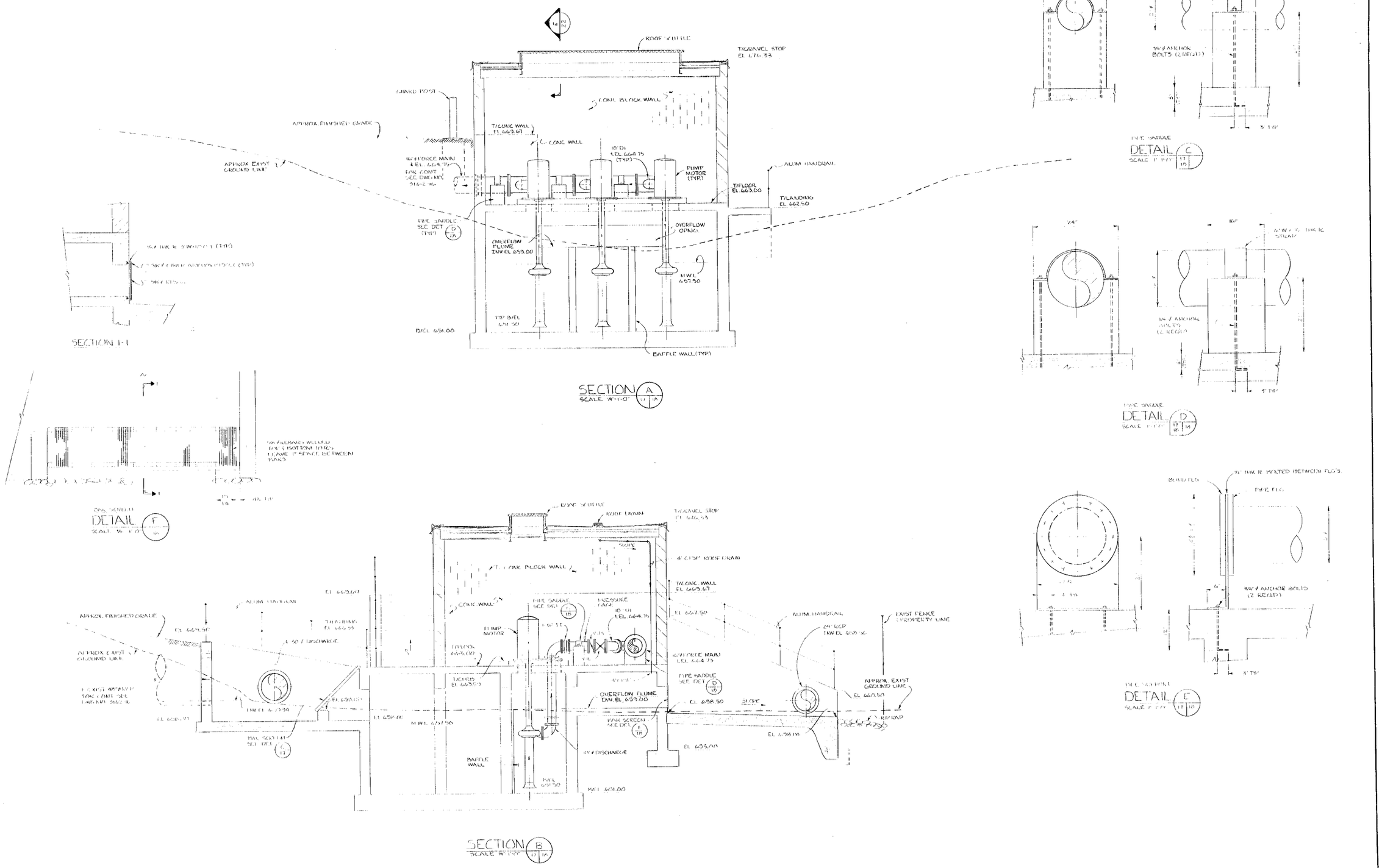


BOTTOM PLAN (B/17)
SCALE: 1/4"=1'-0"

STANDARD DRAWING LIST

2-6	CONCRETE WALKWAY
2-13	GUARD POST
2-30	LADDER BARS
5-2	ALUMINUM GRATING
5-14	SINGLE ACCESS DOOR
5-16	ALUMINUM HANDRAIL
5-20	STRUCTURAL LADDER
5-21	STEEL LADDER CAGE
15-34	PIPE BRACKETS
8-7	HOLLOW METAL DOOR IN MASONRY WALL

DRAWN BY		SCALE: AS SHOWN	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	THE CHESTER ENGINEERS	CENTRAL FOUNDRY DIVISION GENERAL MOTORS CORPORATION BEDFORD PLANT BEDFORD, INDIANA STORM WATER COLLECTION AND REUSE FACILITIES	COLLECTION PUMP STATION MECHANICAL PLANS	DWG.NO. 3162-17
CHECKED BY		DATE	1			5			9			ENGINEERS • ARCHITECTS • PLANNERS			SHEET NO. 17 of 45
APPROVED BY			2			6			10						
			3			7			11						
			4			8			12						



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CHECKED BY TES & JBM	DATE DECEMBER 1986	2			6			10		
		3			7			11		
APPROVED BY AFL & DAF		4			8			12		

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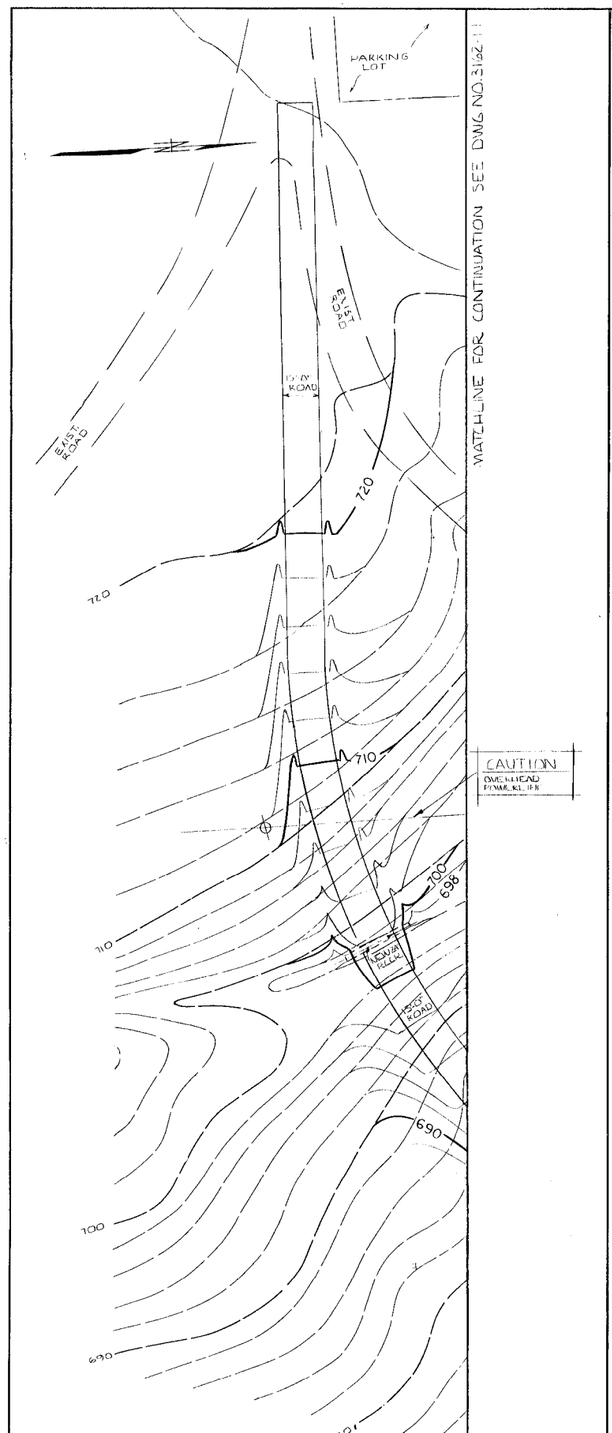
STORM WATER COLLECTION AND REUSE FACILITIES

COLLECTION PUMP STATION
MECHANICAL SECTIONS

DWG.NO. 3162 18

SHEET NO. 18 of 46

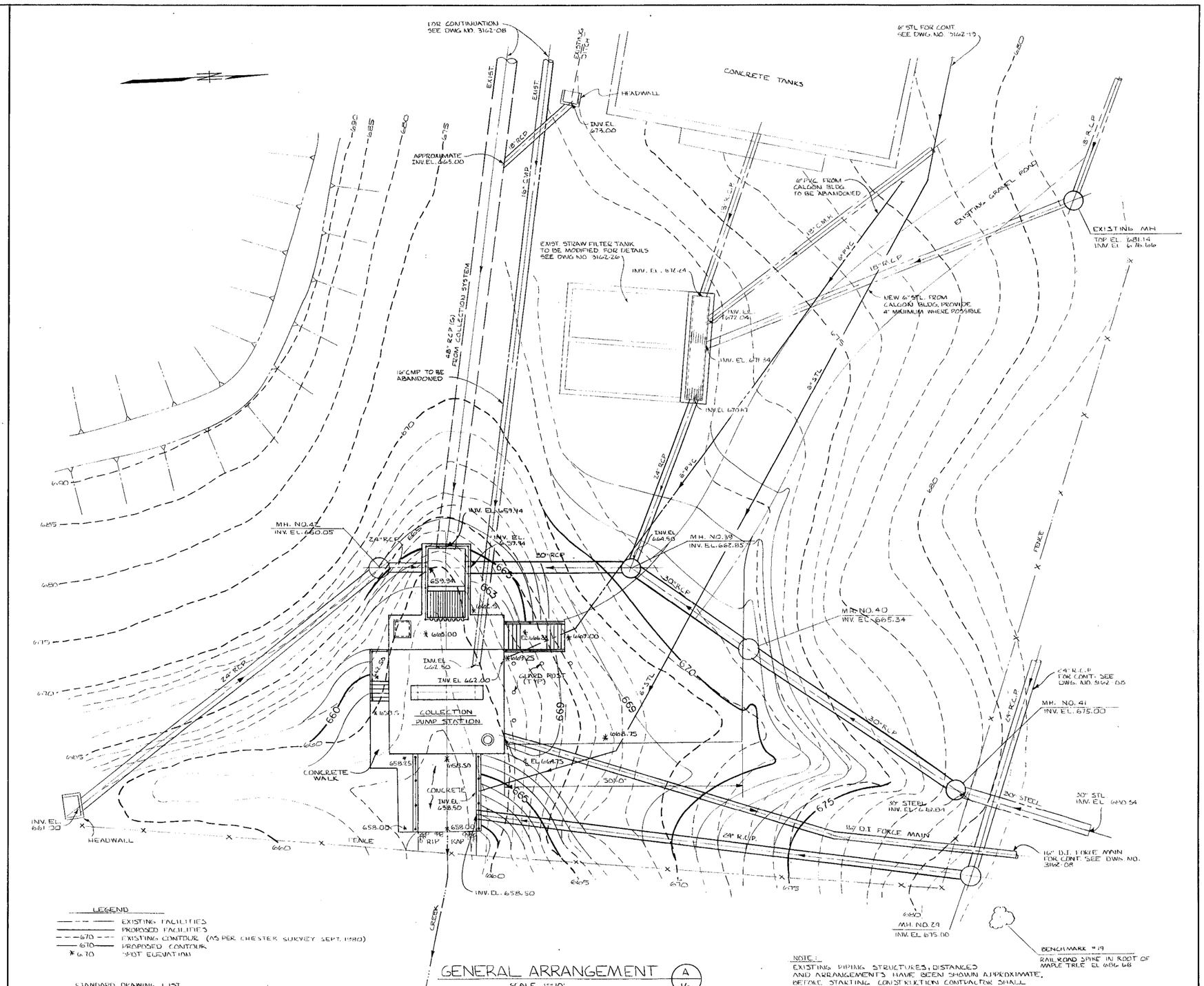


INSERT

GENERAL ARRANGEMENT (B / 16)

SCALE 1"=30'

(LAGOON ACCESS ROADWAY)



LEGEND

- EXISTING FACILITIES
- PROPOSED FACILITIES
- 670 EXISTING CONTOUR (AS PER CHESTER SURVEY SEPT. 1980)
- 670 PROPOSED CONTOUR
- * 670 SPOT ELEVATION

STANDARD DRAWING LIST

2-2 CRUSHED STONE ROADWAY
2-13 GUARD POST

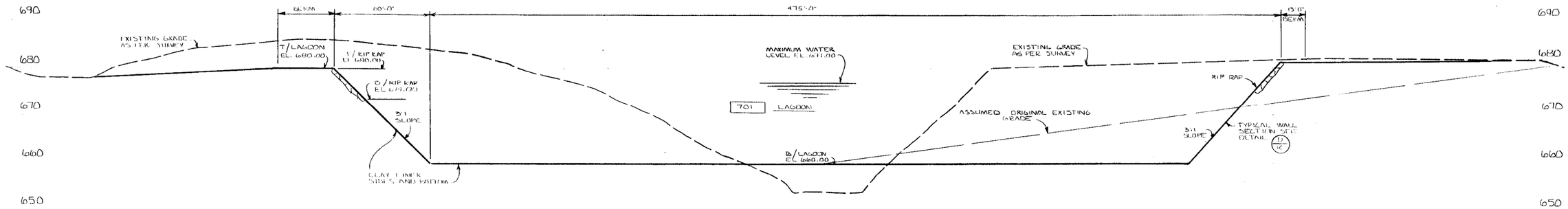
FOR ADDITIONAL STANDARDS USED SEE DWG. NO. 3162-03

GENERAL ARRANGEMENT (A / 16)

SCALE 1"=10'

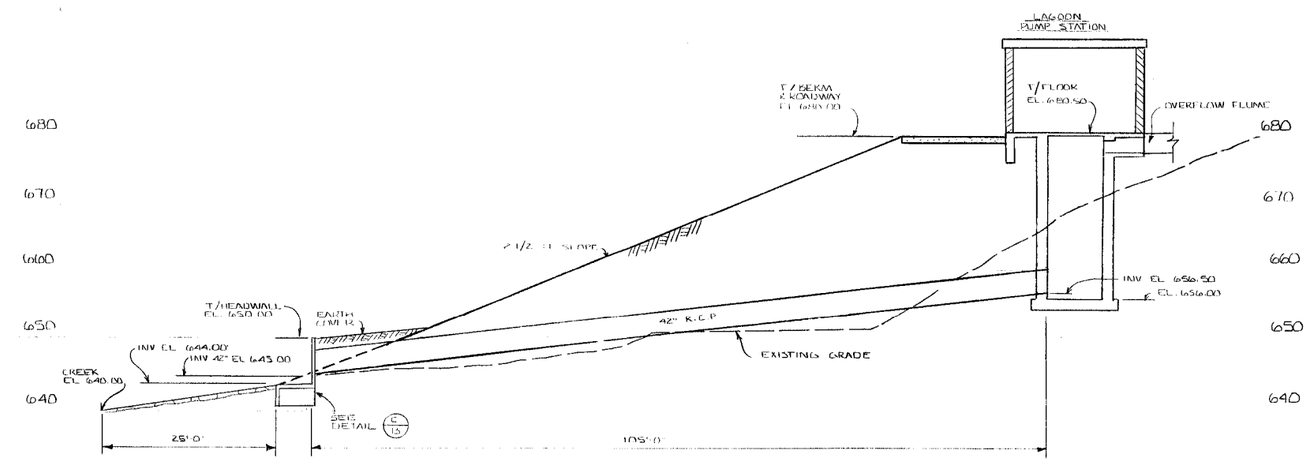
NOTE:
EXISTING UTILITY STRUCTURES, DISTANCES AND ARRANGEMENTS HAVE BEEN SHOWN APPROXIMATE. BEFORE STARTING CONSTRUCTION CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD

DRAWN BY KHR	SCALE: AS SHOWN	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	THE CHESTER ENGINEERS	CENTRAL FOUNDRY DIVISION GENERAL MOTORS CORPORATION BEDFORD PLANT BEDFORD, INDIANA STORM WATER COLLECTION AND REUSE FACILITIES	COLLECTION PUMP STATION GENERAL ARRANGEMENT	DWG.NO. 3162-16
CHECKED BY SGS & JBM	DATE DECEMBER 1980	1	12-1-80	ISSUED FOR BID	5			9			ENGINEERS • ARCHITECTS • PLANNERS			SHEET NO. 16 of 46
APPROVED BY AEL & DAF		2			6			10			Pittsburgh • Ann Arbor • Atlanta • Dallas • Kingston • Nashville • Philadelphia			
		3			7			11						
		4			8			12						



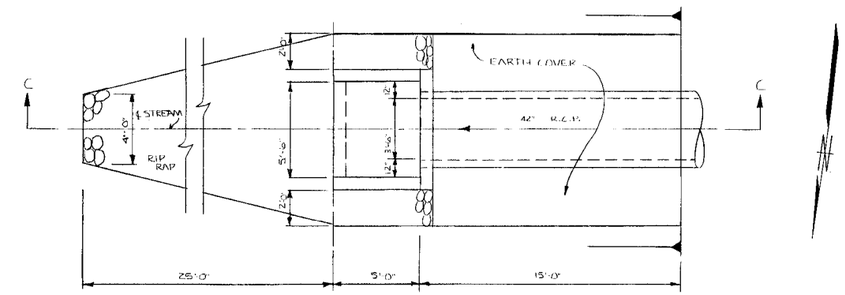
SECTION (A 11/13)

SCALE 1" = 30' HORIZ. 1" = 10' VERT.



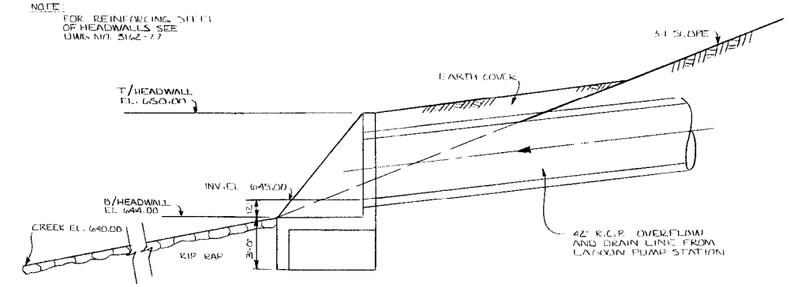
PROFILE
LAGOON OVERFLOW AND DRAIN SEWER (B 10/13)

SCALE 1" = 10' HORIZ. 1" = 10' VERT.



PLAN

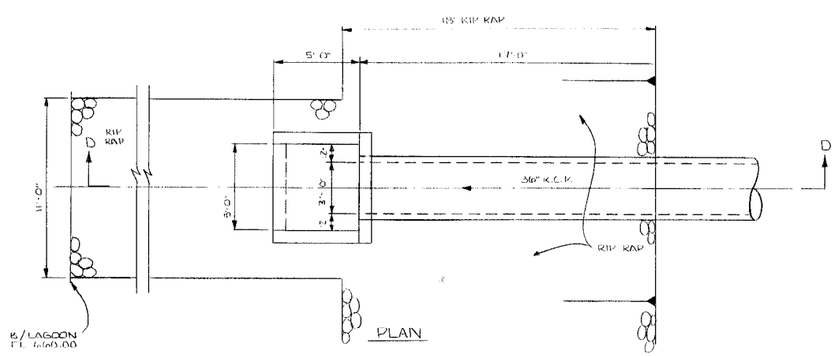
NOTE: FOR REINFORCING SHEET OF HEADWALLS SEE DWG. NO. 3162-17



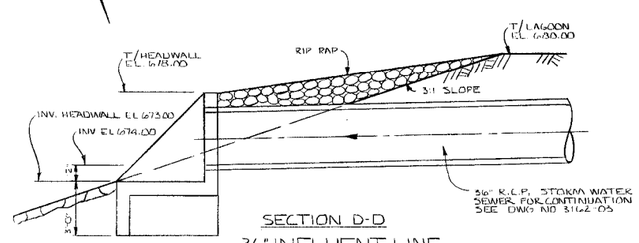
SECTION C-C

OVERFLOW AND DRAIN SEWER DETAILS (C 11/13)

SCALE 1/4" = 1'-0"



PLAN

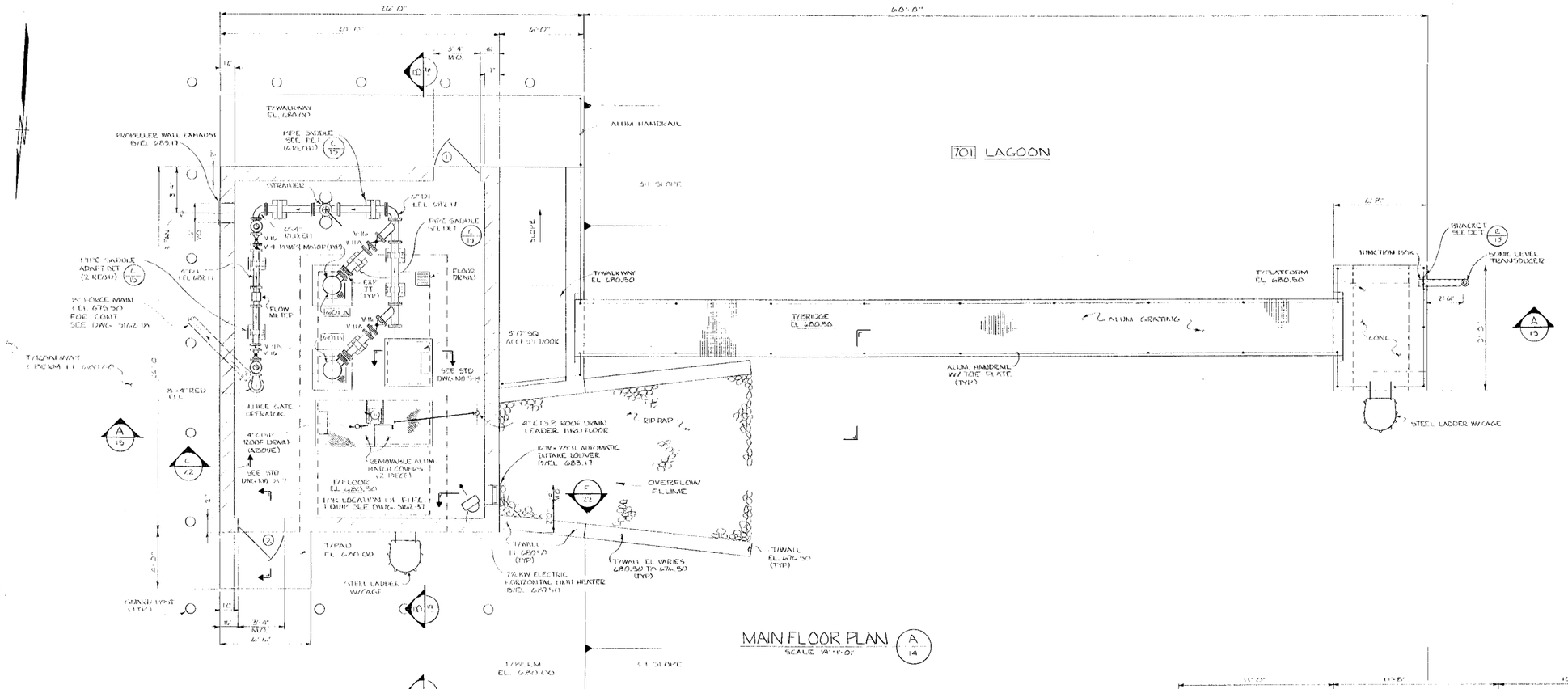


SECTION D-D

36" INFLUENT LINE HEADWALL DETAILS (D 11/13)

SCALE 1/4" = 1'-0"

DRAWN BY JRF	SCALE: AS SHOWN	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	THE CHESTER ENGINEERS	CENTRAL FOUNDRY DIVISION	LAGOON CROSS SECTION & HEADWALL DETAILS	DWG. NO. 3162-13
CHECKED BY SGS & JBM		1	12-18-80	ISSUED FOR BID	5			9			ENGINEERS • ARCHITECTS • PLANNERS	GENERAL MOTORS CORPORATION		
APPROVED BY AFL & DAF	DATE DECEMBER 1980	2			6			10			Pittsburgh • Ann Arbor • Atlanta • Dallas • Kingston • Nashville • Philadelphia	BEDFORD PLANT BEDFORD, INDIANA		SHEET NO. 13 of 46
		3			7			11				STORM WATER COLLECTION AND REUSE FACILITIES		
		4			8			12						



STANDARD DRAWING LIST

2-6	CONCRETE WALKWAY
2-13	GUARD POST
5-2	ALUMINUM GRATING
5-14	SINGLE ACCESS DOOR
5-16	ALUMINUM HANDRAIL
5-20	STRUCTURAL LADDER
5-21	STEEL LADDER CAGE
11-20	TRASH RACK
15-34	PIPE BRACKETS
2-72	CONCRETE BLOCKING
8-72	HOLLOW METAL DOOR IN MASONRY WALL

DRAWN BY ECC	SCALE: AS SHOWN	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	
CHECKED BY TPS & JBM		1	12-1-80	ISSUED FOR BID	5			9			
	DATE DECEMBER 1980	2			6			10			
APPROVED BY AFL & DAF		3			7			11			
		4			8			12			

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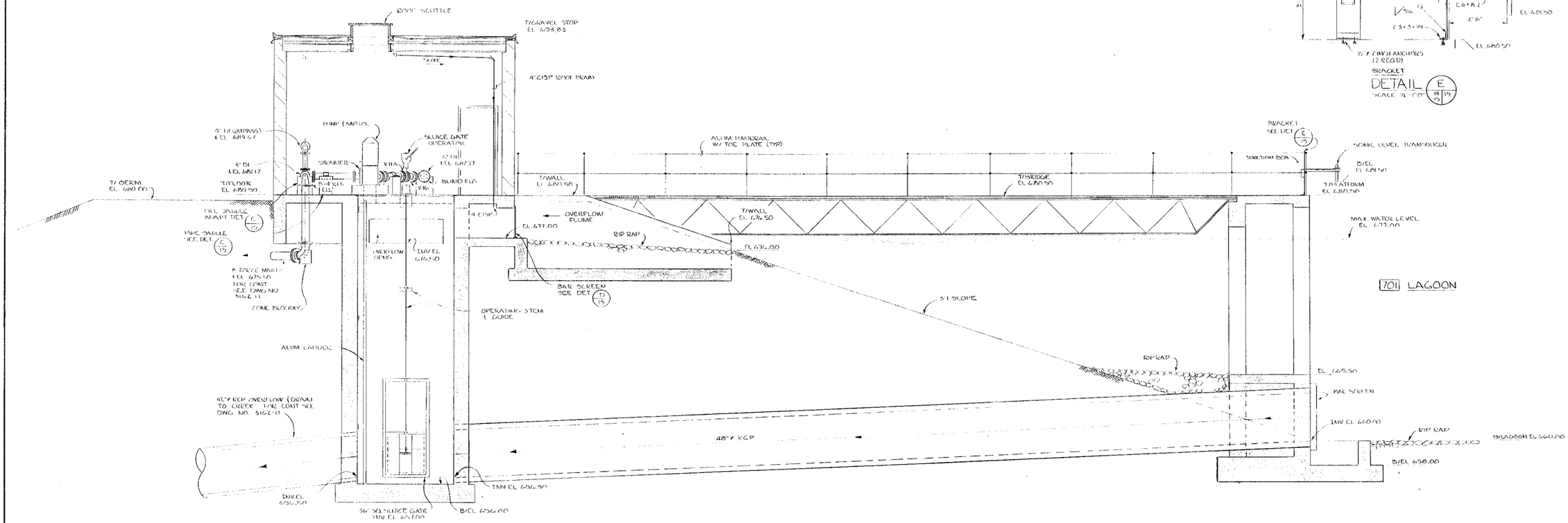
STORM WATER COLLECTION AND REUSE FACILITIES

LAGOON PUMP STATION
MECHANICAL PLANS

DWG. NO. 3162-14

SHEET NO. 14 of 46



DRAWN BY ECC	SCALE: AS SHOWN	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION	NO.	DATE	REVISION DESCRIPTION
CHECKED BY TFS & JBM	DATE DECEMBER 1980	1	12-1-80	ISSUED FOR BID	5			9		
APPROVED BY AFL & DAF		2			6			10		
		3			7			11		
		4			8			12		

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STORM WATER COLLECTION AND REUSE FACILITIES

LAGOON PUMP STATION
MECHANICAL SECTIONS

DWG. NO. 3162-15

SHEET NO. 15 of 46

Appendix B
Sediment Core Logs

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: A-2
DATE COMPLETED: April 5, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND, coarse grained, black	0.30	Sediment	0-0.3'		0.9		0
	CL-CLAY, sandy, soft, orange-red - firm, low plasticity at 0.6ft BGS	1.00						
1	END OF BOREHOLE @ 1.0ft BGS							
2								
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-1
DATE COMPLETED: April 5, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND, coarse grained, brown	0.15	Sediment	0-0.15'		1.0		0
	CL-CLAY, firm, medium plasticity, orange-red							
1	END OF BOREHOLE @ 1.0ft BGS	1.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-10
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated		Sediment	0-1.8'		2.4		0
2	CL-CLAY, soft, low plasticity, brown	1.80						
	END OF BOREHOLE @ 2.5ft BGS	2.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-12
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace organics, saturated		Sediment	0-1.85'		2.4		0
2	CL-CLAY, soft, low plasticity, brown	1.85						
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-2
DATE COMPLETED: April 5, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND, with aluminum shavings, coarse grained, black			0-1'				0
1	SC-SAND, clayey, soft, black	1.00						
2			Sediment	1-3'		4.1		0
3								0
4	CL-CLAY LINER, soft, orange-red	4.00						
	END OF BOREHOLE @ 4.5ft BGS	4.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-4
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	SP-SAND, fine grained, gray, saturated	1.65	Sediment	0-1.65' (CHEMICAL ANALYSIS)		2.7		0
2	CL-CLAY, soft, low plasticity, mottled brown-gray	3.00						
3	END OF BOREHOLE @ 3.0ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-6
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	SP-SAND, trace organics, fine grained, gray, saturated	1.55	Sediment	0-1.55'		2.1		0
2	CL-CLAY, soft, low plasticity, mottled brown-gray	2.50						
	END OF BOREHOLE @ 2.5ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-7
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated			0-2.6'				0
2			Sediment			3.2		
3	CL-CLAY, soft, low plasticity, mottled brown-gray	2.60						
	END OF BOREHOLE @ 3.5ft BGS	3.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: B-8
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated		Sediment	0-2.2'		2.9		0
2	CL-CLAY, soft, low plasticity, mottled brown-gray	2.20						
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 1
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, brown-orange, moist		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 10
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 11
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	TOPSOIL, brown, dry to moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 12
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 2
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium, plasticity, orange-brown, moist		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 3
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium, plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 4
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium, plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 5
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 6
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 7
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace grass		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 8
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Bank 9
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: C-2
DATE COMPLETED: April 5, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	SP-SAND, coarse grained, gray		Sediment	0-1.7'		2.3		0
2	CL-CLAY, soft, mottled brown-gray	1.70						
	END OF BOREHOLE @ 2.5ft BGS	2.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: C-3
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated			0-2.5				0
2			Sediment			3.4		
	ML-SILT, with coarse grained sand, gray silt, black sand	2.50						
3				2.5-3.37				0
	END OF BOREHOLE @ 3.5ft BGS	3.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: C-5
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated			0-1.7				0
2	ML-SILT, with clay, mottled black-gray, saturated	1.70	Sediment	1.7-3'		3.0		0
3	END OF BOREHOLE @ 3.5ft BGS	3.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: C-9
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1, 2	ML-SILT, trace clay, mottled black-gray, saturated		Sediment	0-2.55'		3.3		0
3	CL-CLAY, firm, low plasticity, brown, moist	2.55						
	END OF BOREHOLE @ 3.5ft BGS	3.50						
4, 5, 6, 7, 8, 9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: D-11
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace clay, mottled black-gray, saturated		Sediment	0-2.23'		3.2		0
2	CL-CLAY, firm, low plasticity, brown, moist	2.23						
3	END OF BOREHOLE @ 3.5ft BGS	3.50						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: D-8
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1, 2	ML-SILT, trace clay, mottled black-gray, saturated		Sediment	0-2.7'		3.3		0
3	CL-CLAY, firm, low plasticity, moist	2.70						
4	END OF BOREHOLE @ 3.8ft BGS	3.80						
5, 6, 7, 8, 9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: E-10
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1, 2	ML-SILT, trace clay, mottled black-gray, saturated		Sediment	0-2.55'		3.0		0
3	CL-CLAY, firm, low plasticity, brown, moist	2.55						
	END OF BOREHOLE @ 3.5ft BGS	3.50						
4, 5, 6, 7, 8, 9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: E-12
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace clay, mottled black-gray, saturated		Sediment	0-2.3'		2.8		0
2	CL-CLAY, soft, no plasticity, brown, moist	2.30						
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: E-5
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace clay, gray, saturated		Sediment	0-2.85'		2.9		0
2								
3								
	END OF BOREHOLE @ 3.5ft BGS	3.50						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: E-7
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1, 2	ML-SILT, trace clay, mottled black-gray, saturated		Sediment	0-2.6'		3.1		0
3	CL-CLAY, firm, low plasticity, brown, moist	2.60						
	END OF BOREHOLE @ 3.5ft BGS	3.50						
4, 5, 6, 7, 8, 9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: F-2
DATE COMPLETED: April 5, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	SP-SAND, trace clay, very soft, fine grained, gray		Sediment	0-2.6'		2.8		0
2		2.60						
	CL-CLAY, trace sand, soft, brown							
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: F-4
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated			0-1.6'				0
		1.60	Sediment			3.3		
2	ML-SILT, trace clay, mottled gray-black, saturated			1.6-2.6'				
		2.60						
3	CL-CLAY, firm, low plasticity, brown, moist							
		3.50						
4	END OF BOREHOLE @ 3.5ft BGS							
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: F-6
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated			0-1.5'				0
	ML-SILT, with clay, mottled black-gray, saturated	1.50	Sediment			2.4		
2				1.5-2.43'				0
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: F-8
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled black-gray, saturated		Sediment	0-2.9'		2.9		0
2								
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: G-12
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace clay, mottled black-gray, saturated							
2			Sediment	0-3.4'		3.9		0
3								
	CL-CLAY, firm, low plasticity. brown, moist	3.40						
4	END OF BOREHOLE @ 4.0ft BGS	4.00						
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: G-3
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	ML-SILT, gray, saturated			0-1.6'				0
		1.60	Sediment			2.8		
2	ML-SILT, trace clay, mottled gray-black, saturated			1.6-2.8'				0
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: G-5
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled black-gray, saturated							
2			Sediment	0-3.4'		3.9		0
3								
	CL-CLAY, firm, low plasticity, brown, moist	3.40						
4	END OF BOREHOLE @ 4.0ft BGS	4.00						
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: G-9
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1, 2	ML-SILT, with clay, mottled black-gray, saturated		Sediment	0-2.3'		3.1		0
3	CL-CLAY, firm, low plasticity, brown, moist	2.30						
	END OF BOREHOLE @ 3.5ft BGS	3.50						
4, 5, 6, 7, 8, 9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: GS-1
DATE COMPLETED: April 5, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SP-SAND, coarse grained, brown							
	SC-SAND, clayey, soft, brown	0.50	Sediment	0-1.5'		1.9		0
1								
	CL-CLAY LINER, firm, orange-red	1.50						
2	END OF BOREHOLE @ 2.0ft BGS	2.00						
3								
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: GS-2
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled black-gray, saturated		Sediment	0-2.3'		2.8		0
2		2.30						
	CL-CLAY, firm, low plasticity, brown, moist							
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: GS-3
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace clay, mottled black-gray, saturated			0-2.9'				0
2			Sediment			3.6		
3	CL-CLAY, firm, low plasticity, brown, moist	2.90						
4	END OF BOREHOLE @ 4.0ft BGS	4.00						
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: GS-4
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, trace clay, black, wet		Sediment	0-1.55'		1.7		0
	CL-CLAY, soft, low plasticity, brown, moist	1.55						
2	END OF BOREHOLE @ 2.0ft BGS	2.00						
3								
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: H-11
DATE COMPLETED: April 8, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1, 2	ML-SILT, trace clay, low plasticity, mottled black-gray, saturated		Sediment	0-2.55'		2.9		0
3	CL-CLAY, soft to firm, low plasticity, brown, moist	2.55						
	END OF BOREHOLE @ 3.5ft BGS	3.50						
4, 5, 6, 7, 8, 9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: H-7
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled black-gray, saturated							
2			Sediment	0-3.45'		3.5		0
3								
4	END OF BOREHOLE @ 4.0ft BGS	4.00						
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: I-10
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled black-gray, saturated	1.30		0-1.3'				0
2	CL-CLAY, soft to firm, low plasticity, brown, moist	3.00	Sediment			2.6		
3	END OF BOREHOLE @ 3.0ft BGS							
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: I-12
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, clayey, soft, mottled brown-gray, saturated	1.10	Sediment	0-1.1'		1.7		0
	CL-CLAY, soft, no plasticity, mottled brown-gray	1.80						
2	END OF BOREHOLE @ 1.8ft BGS							
3								
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: I-2
DATE COMPLETED: April 6, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated			0-1.4'				0
	ML-SILT, clayey, soft, brown, wet	1.40	Sediment			2.9		
2				1.4-2.5'				0
	CL-CLAY, soft, no plasticity, brown	2.50						
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: I-4
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled black-gray, saturated		Sediment	0-2.85		2.9		0
2								
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: I-6
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, with clay, mottled gray-black, saturated		Sediment	0-2'		2.6		0
2	CL-CLAY, soft to firm, low plasticity, brown, moist	2.00						
3	END OF BOREHOLE @ 3.0ft BGS	3.00						
4								
5								
6								
7								
8								
9								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: I-8
DATE COMPLETED: April 7, 2016
DRILLING METHOD: Vibracore
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SEDIMENT CORE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
1	ML-SILT, gray, saturated	1.25		0-1.25				0
2	ML-SILT, with clay, mottled gray-black, saturated	2.55	Sediment	1.25-2.55		3.1		0
3	CL-CLAY, firm, low plasticity, brown, moist	3.50						
4	END OF BOREHOLE @ 3.5ft BGS							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 10R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist to wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 11R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 12R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, brown-orange, wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 2R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 3R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace grass		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 4R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 5R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, trace sand, soft, low plasticity, orange-brown, moist to wet		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 6R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist, trace roots and grass		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 7R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist to wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 8R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: GM LLC - Bedford CET Facility
PROJECT NUMBER: 013968
CLIENT: General Motors LLC
LOCATION: Bedford, Indiana
DRILLING CONTRACTOR: Normandeau Associates, Inc.

HOLE DESIGNATION: Shore 9R
DATE COMPLETED: April 9, 2016
DRILLING METHOD: Hand Trowel
FIELD PERSONNEL: J. Luzwick

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	CL-CLAY, soft, medium plasticity, orange-brown, moist to wet, trace roots		Native Soil	0-0.6'				0
	END OF BOREHOLE @ 0.6ft BGS	0.60						

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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

Appendix C
Normandeau Associates Daily Field Logs

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4 15 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1220 - 1230
Station ID #: A-2
Weather: (Clear) Cloudy Rain Other ____
Photos: Y (N) Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): 5-10 / variable

FIELD DATA

Water Depth: 4.8' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: A-2 Coring Time: 1227 Penetration Depth: ~~X~~ ft. Core Recovery: ~~X~~ 9" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: A2
Lat / (N): 1323947.237
Lon / (E): 3124231.895
~~PDOP or SVs:~~ 670.467

Coordinate Units: Lat/Lon ~~US Survey~~ (Feet) MA
Datum: NAD1983 (Y) N Other ____
Proj.: US State Plane 83 IN West
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

Feet of Tubing 2.5'

Preparer's Initial: MA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 33713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4 15 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1240 - 1255
Station ID #: B-1
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10/ Variable

FIELD DATA

Water Depth: 4.0' ft. Tide: Ebb Flood Low Slack High Slack Other **N/A**

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: B-1 Coring Time: 1249 Penetration Depth: 1' ft. Core Recovery: 1' ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DRAFT

DGPS DATA

Operator: MKM
File Name: B1
Lat / N: 1323959.88
Lon / E: 3124233.259
~~PDOP or SVs~~: 670.439

Coordinate Units: Lat/Lon ~~US Survey~~ Feet MKM
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN West
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

HAD TO MOVE DUE TO SPILLWAY

HARD REFUSAL

Feet of Tubing 2.5'

Preparer's Initial: MKM

North

NA

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 3713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/05/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1307 - 1320
Station ID #: B2
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-0 SW

FIELD DATA

Water Depth: 7.3' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: B-2 Coring Time: 1314 Penetration Depth: 4.5' ft. Core Recovery: 4' 1" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: B2
Lat / N: 1323949.072
Lon / E: 3124245.378
~~PDOP or SVs~~: 6 70.042

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN West
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 5'

Preparer's Initial: MJA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**GHD - GM-Bedford Vibracoring**	**Proj. #:** 3713 .000
Site Name:	**GM facility- Stormwater Lagoon**	**Task #: NA**
City:	**Bedford** **State:** **IN**	**Date:** 4 16 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0909 — 0920
Station ID #: B-4
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 10-15 SE

FIELD DATA

Water Depth: 6.0' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: B-4 Coring Time: 0917 Penetration Depth: 3' ft. Core Recovery: 2' 8" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: B-4
Lat / N: 1323880.120
Lon / E: 3124261.904
Z ~~PDOP or SVs~~: 668.771

Coordinate Units: Lat/Lon ~~US Survey~~ M Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN West
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'

Preparer's Initial: MKM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**GHD - GM-Bedford Vibracoring**	**Proj. #:** 3713 .000
Site Name:	**GM facility- Stormwater Lagoon**	**Task #: NA**
City:	**Bedford** **State:** **IN**	**Date:** 4 16 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 0929 - 0940
Station ID #: B-6
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 10-15 SE

FIELD DATA

Water Depth: 7.0' ft. Tide: Ebb Flood Low Slack High Slack Other **N/A**

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: B-6 Coring Time: 0934 Penetration Depth: 2.5' ft. Core Recovery: 2' 1" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: 136
Lat / N: 1323808.617
Lon / E: 3124283.789
~~PDOP or SVs~~: 668.9

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 3573 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/6/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1008-1020
Station ID #: B-7
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 15-20 SE

FIELD DATA

Water Depth: 8.6 ft. Tide: Ebb Flood Low Slack High Slack Other **N/A**

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: B-7 Coring Time: 1016 Penetration Depth: 3.5' ft. Core Recovery: 3'2" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: B7
Lat / N: 1323781.099
Lon / E: 3124297.789
~~PDOP or SVs:~~ 668.7

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 in WI261
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MKM

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	GHD - GM-Bedford Vibracoring		**Proj. #:** 33713 .000
Site Name:	GM facility- Stormwater Lagoon		**Task #:** NA
City:	Bedford	**State:** IN	**Date:** 4 16 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1027 - 1040
Station ID #: B-8
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 9.7' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: B-8 Coring Time: 1037 Penetration Depth: 3' ft. Core Recovery: 2' 11" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

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DGPS DATA

Operator: MKM
File Name: B8
Lat / N: 1323740.874
Lon / E: 3124309.253
~~PDOP or SVs~~: 668-6

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Other
Proj.: US State Plane 83 INWEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3.5'

Preparer's Initial: MKM

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State: IN**	**Date:** 4/6/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1100 - 1115
Station ID #: B-10
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): Variable

FIELD DATA

Water Depth: 7.0' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: B-10 Coring Time: 1111 Penetration Depth: 2.5' ft. Core Recovery: 2' 4" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS ~~Core Diameter (OD):~~ 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: B10
Lat / N: 1323670.025
Lon / E: 3124327.13
~~PDOP or SVs:~~ 668.6

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'
Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/6/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1120 - 1135
Station ID #: B-12
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 15-20 VARIABLE

FIELD DATA

Water Depth: 7.2' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: B-12 Coring Time: 1128 Penetration Depth: 3' ft. Core Recovery: 2'4" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: B12
Lat / N: 1325600.464
Lon / E: 3124348.879
PDOP or SVs: 6(6).4

Coordinate Units: Lat/Lon ~~US Survey Feet~~ NM
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 INWEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3.5'

Preparer's Initial: MK

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**	**Proj. #:** 3713 .000
Site Name:	**GM facility- Stormwater Lagoon**	**Task #: NA**
City:	**Bedford** **State:** **IN**	**Date:** 4 15 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1450 - 1506
Station ID #: C2
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 10' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: C-2 Coring Time: 1501 Penetration Depth: 2.5' ft. Core Recovery: 2' 3" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DRAFT

DGPS DATA

Operator: MKM
File Name: C2
Lat / N: 1323955.334
Lon / E: 3124261.624
~~PDOP or SVs~~ Z: 670.1

Coordinate Units: Lat/Lon ~~US Survey~~ NA Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'

Preparer's Initial: MM

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0808 - 0820
Station ID #: C-3
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 NW

FIELD DATA

Water Depth: 7.3' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: C-3 Coring Time: 0816 Penetration Depth: 3.5' ft. Core Recovery: 3' 5" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: C3
Lat / N: 1323920.272
Lon / E: 3121273.900
~~PDOP or SVs:~~ 6682

Coordinate Units: Lat/Lon ~~US Survey~~ MM Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

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Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	GHD - GM-Bedford Vibracoring		**Proj. #:** 23713 .000
Site Name:	GM facility- Stormwater Lagoon		**Task #:** NA
City:	Bedford	**State:** IN	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0940 - 0950
Station ID #: C-5
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 7.8' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: C-5 Coring Time: 0947 Penetration Depth: 3.5' ft. Core Recovery: 3' ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: C-5
Lat / N: 1323851.342
Lon / E: 3124303.199
Z ~~PDOP or SVs~~: 668.3

Coordinate Units: Lat/Lon ~~US Survey~~ MM Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'
Preparer's Initial: MM

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Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 25713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/18/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0940 - 0950
Station ID #: C-9
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 8.1' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: C-9 Coring Time: 0946 Penetration Depth: 3.5' ft. Core Recovery: 3'4" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: C9
Lat / N: 1323713.573
Lon / E: 3124332.145
~~PDOP or SVs~~: 6108.2

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4

Preparer's Initial: MJ

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 8713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0830 – 0845
Station ID #: D-8
Weather: Clear Cloudy Rain Other ___
Photos: Y N
Roll No./Exposure No.: ___
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 7.8' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: D-8 Coring Time: 0840 Penetration Depth: 3.8' ft. Core Recovery: 3'4" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: ___ Coring Time: ___ Penetration Depth: ___ ft. Core Recovery: ___ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ___ Coring Time: ___ Penetration Depth: ___ ft. Core Recovery: ___ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: D8
Lat / N: 1323752.56
Lon / E: 3124345.78
~~PDOP or SVs~~: 668.3

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other ___
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 3578 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0955 - 1005
Station ID #: D-11
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 8.1' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: D-11 Coring Time: 1001 Penetration Depth: 3.5' ft. Core Recovery: 3' 2" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: ~~Ponar / Vibracore~~ / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: D11
Lat / N: 1323645.218
Lon / E: 3124379.508
~~PDOP or SVs:~~ 6681

Coordinate Units: Lat/Lon ~~US Survey~~ NA Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'
Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 3573 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 0957 – 1015
Station ID #: E-5
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): windy

FIELD DATA

Water Depth: 3.0' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: E-5 Coring Time: 1006 Penetration Depth: 3.5' ft. Core Recovery: unknown ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: E-5 Coring Time: 1011 Penetration Depth: 3.5' ft. Core Recovery: 2' 10" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

NA

DGPS DATA

Operator: MKM
File Name: E5
Lat / N: 1323863.89
Lon / E: 3124333.879
~~PDOP or SVs:~~ 668.1

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** IN	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0758
Station ID #: E-7
Weather: Clear Cloudy Rain Other SNOW
Photos: Y N Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 7.9' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: E-7 Coring Time: 0809 Penetration Depth: ~~0860~~ 0.35 ft Core Recovery: 3' 1" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: E7
Lat / N: 1323793.352
Lon / E: 3124354.131
~~PDOP or SVs~~: 668.2

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other _____
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	GHD - GM-Bedford Vibracoring		**Proj. #:** 83713.000
Site Name:	GM facility- Stormwater Lagoon		**Task #:** NA
City:	Bedford	**State:** IN	**Date:** 4/18/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0917-0930
Station ID #: E-10
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 8.1' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: E-10 Coring Time: 0924 Penetration Depth: 3.5' ft. Core Recovery: 3' ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: E10
Lat / N: 1323694.036 m
Lon / E: ~~3124318.71~~ 3124381.718
~~PDOP or SVs:~~ 2 668.3

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MKM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 35713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1131 –
Station ID #: E-12
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 SW

FIELD DATA

Water Depth: 8.1' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: E-12 Coring Time: 1119 Penetration Depth: 3' ft. Core Recovery: 2'8" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: E12
Lat / N: 1323618.121
Lon / E: 3124407.649
~~PDOP or SVs~~: 668.3

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: NA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	GHD - GM-Bedford Vibracoring		**Proj. #:** 23713.000
Site Name:	GM facility- Stormwater Lagoon		**Task #:** NA
City:	Bedford	**State:** IN	**Date:** 4 15 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1519 - 1536
Station ID #: F2
Weather: (Clear) Cloudy Rain Other ____
Photos: Y (N) Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 11.2' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: F-2 Coring Time: 1528 Penetration Depth: 3' ft. Core Recovery: WASHOUT ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: F-2 Coring Time: 1532 Penetration Depth: 3' ft. Core Recovery: 2'8" ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: F2
Lat / N: 1323974.3602
Lon / E: 3124317.882
~~PDOP or SVs~~: 6070.0

Coordinate Units: Lat/Lon ~~US Survey~~ MM (Feet)
Datum: NAD1983 (Y) N Other ____
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

VERY HARD REFUSAL ON PUSH 1 & 2

North

NA

Feet of Tubing 4'
Preparer's Initial: MM

DRAFT

Attachment B

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 25713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4 17 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0842 - 0855
Station ID #: F-4
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 8.1' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: F-4 Coring Time: 0851 Penetration Depth: 3.5' ft. Core Recovery: 3' 4" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: F4
Lat / N: 1323907.274
Lon / E: 3124341.082
~~PDOP or SVs:~~ 6692.4

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'
Preparer's Initial: MA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1142 – 1200
Station ID #: F-6
Weather: Clear Cloudy Rain Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 8.0' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)
PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: F-6 Coring Time: 1150 Penetration Depth: 3 ft. Core Recovery: WASHOUT ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: F-6 Coring Time: 1154 Penetration Depth: 3 ft. Core Recovery: 2' 6" ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: ~~CAB / Aluminum / SS~~ ~~Core Diameter (OD):~~ 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: F6
Lat / N: 1323834.852
Lon / E: 3124362.483
~~RDOP or SVs:~~ 6608.3

Coordinate Units: Lat/Lon ~~US Survey~~ MA Feet
Datum: NAD1983 (Y) N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'
Preparer's Initial: MJA

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/8/17

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 0818 – 0830
Station ID #: F-8
Weather: Clear Cloudy Rain Other snow
Photos: Y (N) Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 8.0' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: F-8 Coring Time: 0824 Penetration Depth: 3' ft. Core Recovery: 2' 11" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: F8
Lat / N: 1323766.939
Lon / E: 3124321.409
~~PDOP or SVs:~~ 668.2

Coordinate Units: Lat/Lon ~~US Survey~~ NA (Feet)
Datum: NAD1983 (Y) N Other _____
Proj.: US State Plane 83 IN West
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: NA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 0827-0840
Station ID #: G-3
Weather: Clear Cloudy Rain Other ____
Photos: Y N Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 8.2' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: G-3 Coring Time: 0834 Penetration Depth: 3' ft. Core Recovery: 2'9" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. ~~Core Recovery:~~ ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: G3
Lat / N: 1323942.213
Lon / E: 3124346.099
~~PDOP or SVs~~: 668.2

Coordinate Units: Lat/Lon ~~US Survey~~ N/A Feet
Datum: NAD1983 Y N Other ____
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'

Preparer's Initial: NA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #:** NA
City:	**Bedford**	**State:** IN	**Date:** 4/7/17

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1124 - 1140
Station ID #: G-5
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 7-8' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: G-5 Coring Time: 1132 Penetration Depth: 4' ft. Core Recovery: 3'10" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: G-5
Lat / N: 1323876.812
Lon / E: 3124370.476
2 PDOP or SVs: 668.2

Coordinate Units: Lat/Lon ~~US Survey~~ MM Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'
Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**	**Proj. #:** 23717 .000
Site Name:	**GM facility- Stormwater Lagoon**	**Task #: NA**
City:	**Bedford** **State:** **IN**	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 0905 - 0915
Station ID #: G-9
Weather: Clear Cloudy Rain Other HAIL
Photos: Y N
Roll No./Exposure No.: _____
Wind Conditions (Speed/Direction): CALM

FIELD DATA

Water Depth: 8.2' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: G-9 Coring Time: 0912 Penetration Depth: 3.5' ft. Core Recovery: 3'2" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ ft. Core Recovery: _____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: G9
Lat / N: 1323735.304
Lon / E: 3124413.411
~~PDOP or SVs~~: 668.3

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other _____
Proj.: US State Plane 83 IN West
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

Feet of Tubing 4'

Preparer's Initial: MKM

North

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1041 - 1050
Station ID #: G-12
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 SW

FIELD DATA

Water Depth: 8.1' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: G-12 Coring Time: 1047 Penetration Depth: 4' ft. Core Recovery: 3'11" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DRAFT

DGPS DATA

Operator: MKM
File Name: G-12
Lat / ~~N~~: 1323634.891
Lon / ~~E~~: 3124447.51
~~PDOP or SVs:~~ 668.3

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 25713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1328 - 1343
Station ID #: H7
Weather: Clear Cloudy Rain Other ____
Photos: Y N Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 8.2' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: H-7 Coring Time: 1340 Penetration Depth: 4' ft. Core Recovery: 3' 5" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: H7
Lat / N: 1323813.539
Lon / E: 3124411.552
~~PDOP or SVs:~~ 668.1

Coordinate Units: Lat/Lon ~~US Survey Feet~~ MA
Datum: NAD1983 Y N Other ____
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MJM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

Page 1 of 1

Project Name:	GHD - GM-Bedford Vibracoring		**Proj. #:** 23713 .000
Site Name:	GM facility- Stormwater Lagoon		**Task #:** NA
City:	Bedford	**State:** IN	**Date:** 4/18/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1028 - 1039
Station ID #: H-11
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 SW

FIELD DATA

Water Depth: 7.9' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: H-11 Coring Time: 1036 Penetration Depth: 3.5' ft. Core Recovery: 2' 11" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: H11
Lat / N: 1323672.454
Lon / E: 3124456.300
~~PDOP or SVs~~: 1062.1

Coordinate Units: Lat/Lon ~~US Survey~~ Feet NA
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 3573 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/6/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1215
Station ID #: I-2
Weather: Clear (Cloudy) Rain Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE & GUSTY

FIELD DATA

Water Depth: 5.8' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: I-2 Coring Time: 1225 Penetration Depth: 3' ft. Core Recovery: 2'11" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: I2
Lat / N: 1323993090
Lon / E: 3124379.798
~~PDOP or SVs~~: 6608.5

Coordinate Units: Lat/Lon ~~US Survey~~ (Feet) m
Datum: NAD1983 (Y) N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~SeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 25713.000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1040-1050
Station ID #: I-4
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 7.9' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: I-4 Coring Time: 1046 Penetration Depth: 3' ft. Core Recovery: 2'10" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: I4
Lat / N: 1323921.312
Lon / E: 3124399.277
~~PDOP or SVs:~~ 6 6 8 7

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

Feet of Tubing 4'
Preparer's Initial: MM

North

NA

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 28713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4 17 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1055 - 1105
Station ID #: I-6
Weather: Clear Cloudy Rain Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction):

FIELD DATA

Water Depth: 7-3' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: I-6 Coring Time: 1103 Penetration Depth: 3' ft. Core Recovery: 2' 7" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: I6
Lat / N: 1323854.320
Lon / E: 3124420.092
~~PDOP~~ or SVs: 6/08:2

Coordinate Units: Lat/Lon ~~US Survey Feet~~ m/s
Datum: NAD1983 (Y) N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 24

Preparer's Initial: MA

DRAFT

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4 17 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1427 - 1440
Station ID #: I-8
Weather: Clear Cloudy Rain Other ____
Photos: Y N Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 8.2' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: I-8 Coring Time: 1433 Penetration Depth: 3.5' ft. Core Recovery: 3' 2" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: I 8
Lat / N: 1323783.953
Lon / E: 3124438.196
~~PDOP or SVs~~: 668.1

Coordinate Units: Lat/Lon ~~US Survey~~ Feet
Datum: NAD1983 Y N Other ____
Proj.: US State Plane 83 IN WEST
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/17/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1458 – 1508
Station ID #: I-10
Weather: Clear Cloudy Rain Other ____
Photos: Y (N) Roll No./Exposure No.: ____
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 5.1' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: I-10 Coring Time: 1505 Penetration Depth: ~~2.5~~ 3' ft. Core Recovery: 2' ~~X~~ 7" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ ft. Core Recovery: ____ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: I10
Lat / N: 1323713043
Lon / E: 3124463.009
~~PDOP or SVs:~~ 6608.2

Coordinate Units: Lat/Lon ~~US Survey~~ (Feet) MM
Datum: NAD1983 (Y) N Other ____
Proj.: US State Plane 83 (IN WEST)
GPS Serial ~~#: GeoXH 6000~~ RTK

COMMENTS / NOTES

North

MA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/16/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA MM
Arrival & Departure Times: 1257 – 1325
Station ID #: I ~~X~~ 12
Weather: Clear Cloudy Rain Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction): Gusty

FIELD DATA MM

Water Depth: ~~X~~ 3.8' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: I-12 Coring Time: 1315 Penetration Depth: 1' 8" ft. Core Recovery: 1' 7" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. ~~Core Recovery:~~ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: I12
Lat / N: 1323641.910
Lon / E: 3124482.738
~~RDOP or SVs:~~ 6683

Coordinate Units: Lat/Lon ~~US Survey Feet~~ MM
Datum: NAD1983 (Y) N Other
Proj.: US State Plane 83 IN West
GPS Serial ~~# GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 2

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 25713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/15/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1340
Station ID #: GS-1
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 5-10 SW

FIELD DATA

Water Depth: 8' ft. Tide: Ebb Flood Low Slack High Slack Other N/A
PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: GS-1 Coring Time: 1401 Penetration Depth: 2' ft. Core Recovery: 1' 9" ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DRAFT

DGPS DATA

Operator: MKM
File Name: GS1
Lat / N: 1323965.973
Lon / E: 3126255.744
~~PDOP or SVs:~~ 2 670.2

Coordinate Units: Lat/Lon ~~US Survey~~ NA Feet
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

HAD TO MOVE BECAUSE OF SPILLWAY

North

NA

Feet of Tubing 2.5'
Preparer's Initial: MM

Attachment B

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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/7/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 1414 - 1425
Station ID #: GS-2
Weather: Clear Cloudy Rain Other
Photos: Y (N) Roll No./Exposure No.:
Wind Conditions (Speed/Direction): VARIABLE

FIELD DATA

Water Depth: 7.2' ft. Tide: Ebb Flood Low Slack High Slack Other (N/A)

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: GS-2 Coring Time: 1420 Penetration Depth: 3' ft. Core Recovery: 2'9" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: WS2
Lat / N: 1373796.258
Lon / E: 3124437.232
~~PDOP or SVs:~~ 6608.2

Coordinate Units: Lat/Lon ~~US Survey~~ MA Feet
Datum: NAD1983 (Y) N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MA

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
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FIELD DATA SHEET

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Project Name:	**GHD - GM-Bedford Vibracoring**		**Proj. #:** 23713 .000
Site Name:	**GM facility- Stormwater Lagoon**		**Task #: NA**
City:	**Bedford**	**State:** **IN**	**Date:** 4/8/16

Field Team Leader(s): MKM
Field Team Safety Coordinator: MKM
Field Crew: BJA
Arrival & Departure Times: 1127 — 1140
Station ID #: G-S-3
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 10-15 SW

FIELD DATA

Water Depth: 7-7' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: G-S-3 Coring Time: 1136 Penetration Depth: ~~4'~~ 4' ft. Core Recovery: 3' 7" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: G-S-3
Lat / N: 1323567.899
Lon / E: 3124457.090
~~PDOP or SVs~~: 2 6686

Coordinate Units: Lat/Lon ~~US Survey~~ Feet MM
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial ~~#: GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 4'

Preparer's Initial: MM

DRAFT

Attachment B

NORMANDEAU ASSOCIATES™
ENVIRONMENTAL CONSULTANTS

rev:8/15

FIELD DATA SHEET

Page 1 of 1

Project Name:	**GHD - GM-Bedford Vibracoring**	**Proj. #:** 23713.000
Site Name:	**GM facility- Stormwater Lagoon**	**Task #: NA**
City:	**Bedford** **State:** **IN**	**Date:** 4 19 16

Field Team Leader(s): MKM
Field Team Safety Coordinator: **MKM**
Field Crew: BJA
Arrival & Departure Times: 0954 - 1000
Station ID #: GS-4
Weather: Clear Cloudy Rain Other
Photos: Y N Roll No./Exposure No.:
Wind Conditions (Speed/Direction): 10-15 N

FIELD DATA

Water Depth: 4.8' ft. Tide: Ebb Flood Low Slack High Slack Other N/A

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: GS-4 Coring Time: 0958 Penetration Depth: 2' ft. Core Recovery: 1' 8" ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #2

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: Coring Time: Penetration Depth: ft. Core Recovery: ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MKM
File Name: GS4
Lat / N: 1323527.111
Lon / E: 3124384.811
2 ~~RDOP or SVs~~: 668.5

Coordinate Units: Lat/Lon ~~US Survey Feet~~
Datum: NAD1983 Y N Other
Proj.: US State Plane 83 IN WEST
GPS Serial # ~~GeoXH 6000~~ RTK

COMMENTS / NOTES

North

NA

Feet of Tubing 3'

Preparer's Initial: MM

DRAFT

Appendix D
Site Photographs

Photo 1: Arrival and setup of the crane at the Stormwater Pond.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 2: Preparing to unload the coring vessel from the trailer.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 3: Coring vessel outfitted with an A-Frame, electric winch, generator, and all necessary sediment collection tools.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 4: Preparing to unload the coring vessel from the trailer.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 5: Unloading the coring vessel into the Stormwater Pond on April 5, 2016.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 6: Sediment sampling activities in the northwest corner of the Stormwater Pond.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 7: Coring vessel moving toward sampling location in the Stormwater Pond.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 8: Coring vessel setting up at a location in the Stormwater Pond.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 9: Processing sediment samples collected from the Stormwater Pond.

Photo 10: Sediment core processing and logging.

Photo 11: Overlooking the Stormwater Pond, facing northeast.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 12: Sediment cores collected from locations D-11 and C-9.

Photo 13: Sediment cores collected from locations D-11 and C-9.

Photo 14: Sediment cores collected from locations E-7, D-8, and F-8.

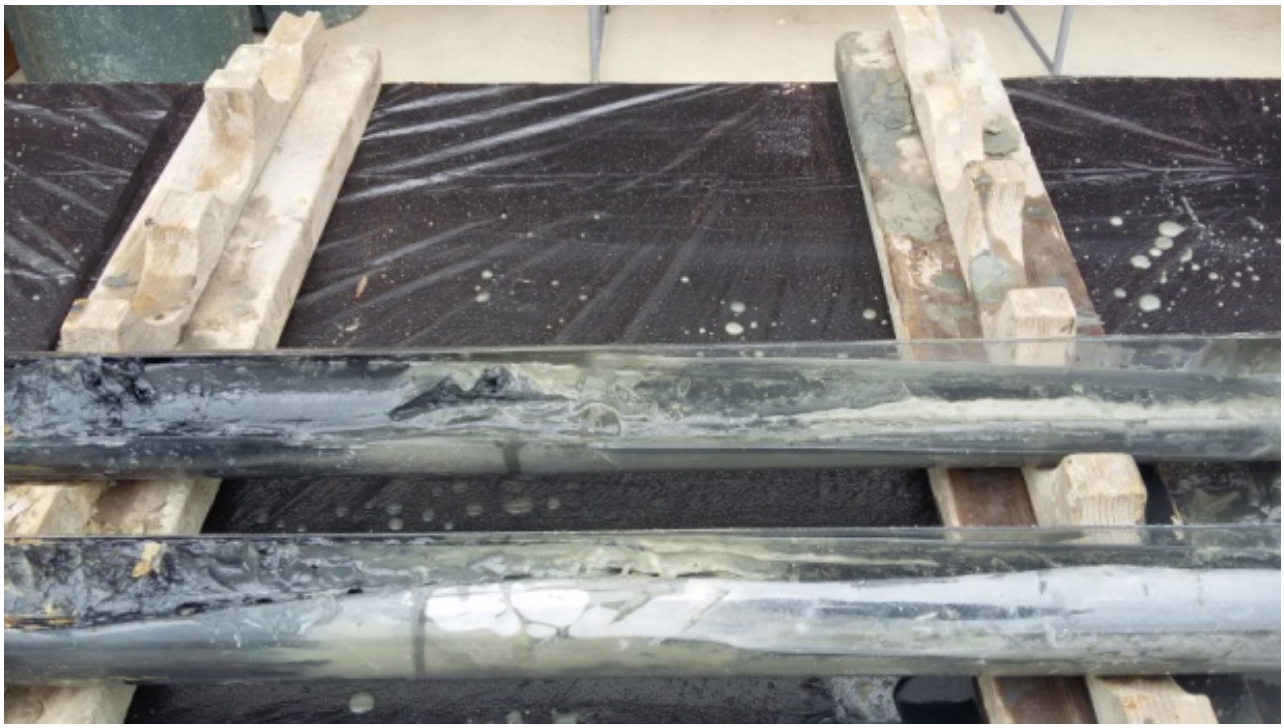

Photo 15: Sediment cores collected from locations E-10 and G-9.

Photo 16: Sediment cores collected from locations E-10 and G-9.

Photo 17: Sediment cores collected from locations E-12 and GS-3.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Photo 18: Sediment cores collected from locations E-12 and GS-3.

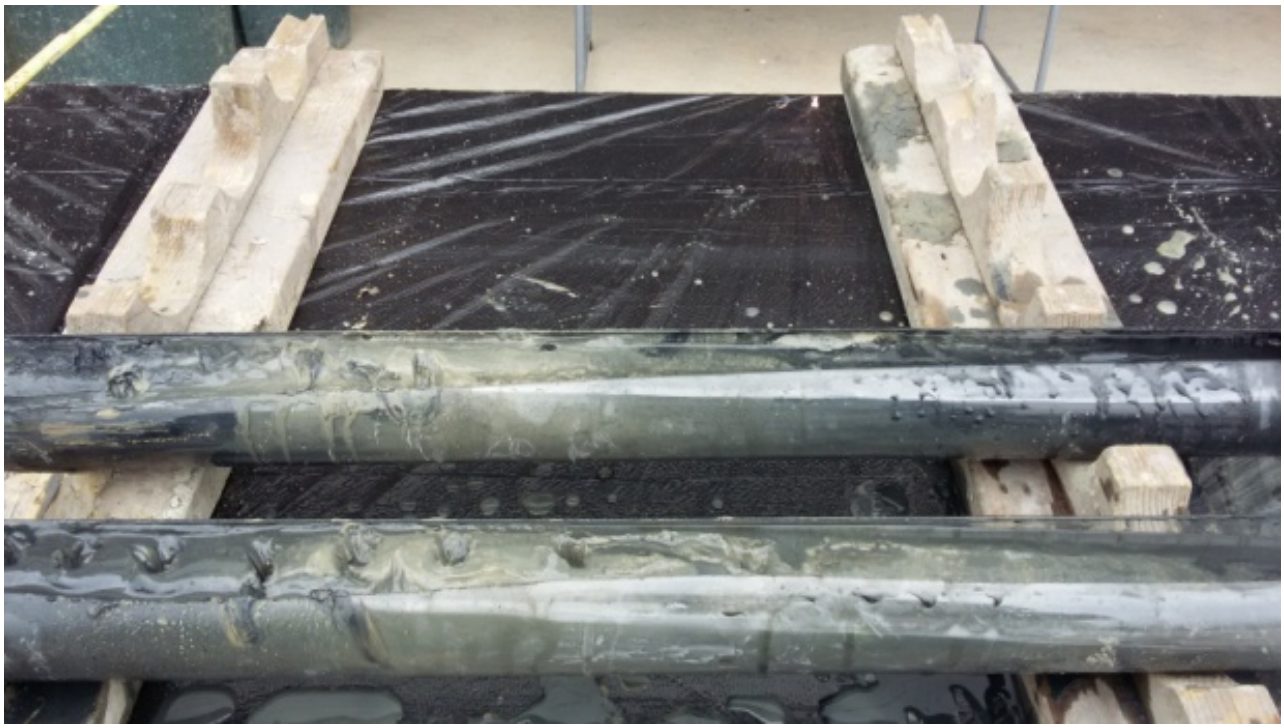

Photo 19: Sediment cores collected from locations H-11 and G-12.

Photo 20: Sediment cores collected from locations H-11 and G-12.

Photo 21: Sediment cores collected from locations E-7, D-8, and F-8.

Appendix D: Site Photographs
Basis of Design Report (Conceptual Design)

Appendix E
Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-63095-1
Client Project/Site: 13968, GM Bedford, SSOW# E117018-002

For:
GHD Services Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Rawa Fleisher

Denise D Heckler

Authorized for release by:
4/14/2016 9:46:08 AM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 240-63095-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-63095-1

Comments
No additional comments.

Receipt
The samples were received on 4/6/2016 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

GC Semi VOA
Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SE-040516-JN-001 (240-63095-1), SE-040516-JN-002 (240-63095-2), SE-040516-JN-003 (240-63095-3), SE-040516-JN-005 (240-63095-5), SE-040516-JN-006 (240-63095-6), SE-040516-JN-007 (240-63095-7) and SE-040516-JN-008 (240-63095-8). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040516-JN-001 (240-63095-1), SE-040516-JN-002 (240-63095-2), SE-040516-JN-003 (240-63095-3), SE-040516-JN-005 (240-63095-5), SE-040516-JN-006 (240-63095-6), SE-040516-JN-007 (240-63095-7) and SE-040516-JN-008 (240-63095-8). Reagents: 2460606,2103101 and 2283705.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Geotechnical
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-63095-1	SE-040516-JN-001	Solid	04/05/16 15:25	04/06/16 09:45
240-63095-2	SE-040516-JN-002	Solid	04/05/16 15:30	04/06/16 09:45
240-63095-3	SE-040516-JN-003	Solid	04/05/16 14:55	04/06/16 09:45
240-63095-4	SE-040516-JN-004	Solid	04/05/16 15:15	04/06/16 09:45
240-63095-5	SE-040516-JN-005	Solid	04/05/16 15:00	04/06/16 09:45
240-63095-6	SE-040516-JN-006	Solid	04/05/16 16:00	04/06/16 09:45
240-63095-7	SE-040516-JN-007	Solid	04/05/16 16:10	04/06/16 09:45
240-63095-8	SE-040516-JN-008	Solid	04/05/16 16:15	04/06/16 09:45

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Client Sample ID: SE-040516-JN-001 — Lab Sample ID: 240-63095-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	17000		5000		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040516-JN-002 — Lab Sample ID: 240-63095-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	39000		9300		ug/Kg	200	☼	8082	Total/NA

Client Sample ID: SE-040516-JN-003 — Lab Sample ID: 240-63095-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	22000		4000		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040516-JN-004 — Lab Sample ID: 240-63095-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Gravel	0.0				%	1		D422	Total/NA
Sieve Size 3 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sand	46.7				%	1		D422	Total/NA
Sieve Size 2 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Coarse Sand	3.2				%	1		D422	Total/NA
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Medium Sand	16.4				%	1		D422	Total/NA
Sieve Size 1 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Fine Sand	27.1				%	1		D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Silt	33.8				%	1		D422	Total/NA
Clay	19.5				%	1		D422	Total/NA
Sieve Size #4 - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sieve Size #10 - Percent Finer	96.8				% Passing	1		D422	Total/NA
Sieve Size #20 - Percent Finer	92.5				% Passing	1		D422	Total/NA
Sieve Size #40 - Percent Finer	80.4				% Passing	1		D422	Total/NA
Sieve Size #60 - Percent Finer	65.7				% Passing	1		D422	Total/NA
Sieve Size #80 - Percent Finer	60.3				% Passing	1		D422	Total/NA
Sieve Size #100 - Percent Finer	58.0				% Passing	1		D422	Total/NA
Sieve Size #200 - Percent Finer	53.3				% Passing	1		D422	Total/NA
Hydrometer Reading 1 - Percent Finer	35.5				% Passing	1		D422	Total/NA
Hydrometer Reading 2 - Percent Finer	30.7				% Passing	1		D422	Total/NA
Hydrometer Reading 3 - Percent Finer	25.9				% Passing	1		D422	Total/NA
Hydrometer Reading 4 - Percent Finer	21.9				% Passing	1		D422	Total/NA
Hydrometer Reading 5 - Percent Finer	19.5				% Passing	1		D422	Total/NA
Hydrometer Reading 6 - Percent Finer	13.9				% Passing	1		D422	Total/NA
Hydrometer Reading 7 - Percent Finer	10.8				% Passing	1		D422	Total/NA

Client Sample ID: SE-040516-JN-005 — Lab Sample ID: 240-63095-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	370000		29000		ug/Kg	500	☼	8082	Total/NA
Aroclor-1254	42000		29000		ug/Kg	500	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Client Sample ID: SE-040516-JN-006 — Lab Sample ID: 240-63095-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	33000		7600		ug/Kg	200	☼	8082	Total/NA

Client Sample ID: SE-040516-JN-007 — Lab Sample ID: 240-63095-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	48000		7200		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040516-JN-008 — Lab Sample ID: 240-63095-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	26000		7000		ug/Kg	100	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
D422	Grain Size	ASTM	TAL BUR

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-001
Date Collected: 04/05/16 15:25
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-1
Matrix: Solid
Percent Solids: 66.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	5000	U	5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100
Aroclor-1221	5000	U	5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100
Aroclor-1232	5000	U	5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100
Aroclor-1242	**17000**		5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100
Aroclor-1248	5000	U	5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100
Aroclor-1254	5000	U	5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100
Aroclor-1260	5000	U	5000		ug/Kg	☼	04/07/16 09:08	04/11/16 13:59	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*225*	*X*	*13 - 134*	*04/07/16 09:08*	*04/11/16 13:59*	*100*
DCB Decachlorobiphenyl	*133*		*10 - 155*	*04/07/16 09:08*	*04/11/16 13:59*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-002
Date Collected: 04/05/16 15:30
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-2
Matrix: Solid
Percent Solids: 71.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	9300	U	9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200
Aroclor-1221	9300	U	9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200
Aroclor-1232	9300	U	9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200
Aroclor-1242	9300	U	9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200
Aroclor-1248	**39000**		9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200
Aroclor-1254	9300	U	9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200
Aroclor-1260	9300	U	9300		ug/Kg	☼	04/07/16 09:08	04/11/16 14:17	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*122*		*13 - 134*	*04/07/16 09:08*	*04/11/16 14:17*	*200*
DCB Decachlorobiphenyl	*150*		*10 - 155*	*04/07/16 09:08*	*04/11/16 14:17*	*200*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-003
Date Collected: 04/05/16 14:55
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-3
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	4000	U	4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100
Aroclor-1221	4000	U	4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100
Aroclor-1232	4000	U	4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100
Aroclor-1242	**22000**		4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100
Aroclor-1248	4000	U	4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100
Aroclor-1254	4000	U	4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100
Aroclor-1260	4000	U	4000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:35	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*813*	*X*	*13 - 134*	*04/07/16 09:08*	*04/11/16 14:35*	*100*
DCB Decachlorobiphenyl	*86*		*10 - 155*	*04/07/16 09:08*	*04/11/16 14:35*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-005
Date Collected: 04/05/16 15:00
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-5
Matrix: Solid
Percent Solids: 56.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	29000	U	29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500
Aroclor-1221	29000	U	29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500
Aroclor-1232	29000	U	29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500
Aroclor-1242	**370000**		29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500
Aroclor-1248	29000	U	29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500
Aroclor-1254	**42000**		29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500
Aroclor-1260	29000	U	29000		ug/Kg	☼	04/07/16 09:08	04/11/16 14:54	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*11453*	*X*	*13 - 134*	*04/07/16 09:08*	*04/11/16 14:54*	*500*
DCB Decachlorobiphenyl	*178*	*X*	*10 - 155*	*04/07/16 09:08*	*04/11/16 14:54*	*500*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-006
Date Collected: 04/05/16 16:00
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-6
Matrix: Solid
Percent Solids: 85.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7600	U	7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200
Aroclor-1221	7600	U	7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200
Aroclor-1232	7600	U	7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200
Aroclor-1242	**33000**		7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200
Aroclor-1248	7600	U	7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200
Aroclor-1254	7600	U	7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200
Aroclor-1260	7600	U	7600		ug/Kg	☼	04/07/16 09:08	04/11/16 15:12	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*1990*	*X*	*13 - 134*	*04/07/16 09:08*	*04/11/16 15:12*	*200*
DCB Decachlorobiphenyl	*184*	*X*	*10 - 155*	*04/07/16 09:08*	*04/11/16 15:12*	*200*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-007
Date Collected: 04/05/16 16:10
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-7
Matrix: Solid
Percent Solids: 45.7

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7200	U	7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100
Aroclor-1221	7200	U	7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100
Aroclor-1232	7200	U	7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100
Aroclor-1242	**48000**		7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100
Aroclor-1248	7200	U	7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100
Aroclor-1254	7200	U	7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100
Aroclor-1260	7200	U	7200		ug/Kg	☼	04/07/16 09:08	04/11/16 15:31	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*1827*	*X*	*13 - 134*	*04/07/16 09:08*	*04/11/16 15:31*	*100*
DCB Decachlorobiphenyl	*119*		*10 - 155*	*04/07/16 09:08*	*04/11/16 15:31*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040516-JN-008
Date Collected: 04/05/16 16:15
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-8
Matrix: Solid
Percent Solids: 47.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7000	U	7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100
Aroclor-1221	7000	U	7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100
Aroclor-1232	7000	U	7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100
Aroclor-1242	**26000**		7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100
Aroclor-1248	7000	U	7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100
Aroclor-1254	7000	U	7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100
Aroclor-1260	7000	U	7000		ug/Kg	☼	04/07/16 09:08	04/11/16 15:49	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*770*	*X*	*13 - 134*	*04/07/16 09:08*	*04/11/16 15:49*	*100*
DCB Decachlorobiphenyl	*73*		*10 - 155*	*04/07/16 09:08*	*04/11/16 15:49*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-001
Date Collected: 04/05/16 15:25
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-1
Matrix: Solid
Percent Solids: 66.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	66.2		0.1		%			04/07/16 13:52	1
Percent Moisture	33.8		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-002
Date Collected: 04/05/16 15:30
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-2
Matrix: Solid
Percent Solids: 71.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**71.3**		0.1		%			04/07/16 13:52	1
Percent Moisture	**28.7**		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-003
Date Collected: 04/05/16 14:55
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-3
Matrix: Solid
Percent Solids: 82.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**82.5**		0.1		%			04/07/16 13:52	1
Percent Moisture	**17.5**		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-005
Date Collected: 04/05/16 15:00
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-5
Matrix: Solid
Percent Solids: 56.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**56.4**		0.1		%			04/07/16 13:52	1
Percent Moisture	**43.6**		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-006
Date Collected: 04/05/16 16:00
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-6
Matrix: Solid
Percent Solids: 85.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**85.4**		0.1		%			04/07/16 13:52	1
Percent Moisture	**14.6**		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-007
Date Collected: 04/05/16 16:10
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-7
Matrix: Solid
Percent Solids: 45.7

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**45.7**		0.1		%			04/07/16 13:52	1
Percent Moisture	**54.3**		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

General Chemistry

Client Sample ID: SE-040516-JN-008
Date Collected: 04/05/16 16:15
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-8
Matrix: Solid
Percent Solids: 47.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.3**		0.1		%			04/07/16 13:52	1
Percent Moisture	**52.7**		0.1		%			04/07/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: D422 - Grain Size

Client Sample ID: SE-040516-JN-004
Date Collected: 04/05/16 15:15
Date Received: 04/06/16 09:45

Lab Sample ID: 240-63095-4
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			04/07/16 15:46	1
Sieve Size 3 inch - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Sand	46.7				%			04/07/16 15:46	1
Sieve Size 2 inch - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Coarse Sand	3.2				%			04/07/16 15:46	1
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Medium Sand	16.4				%			04/07/16 15:46	1
Sieve Size 1 inch - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Fine Sand	27.1				%			04/07/16 15:46	1
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Silt	33.8				%			04/07/16 15:46	1
Clay	19.5				%			04/07/16 15:46	1
Sieve Size #4 - Percent Finer	100.0				% Passing			04/07/16 15:46	1
Sieve Size #10 - Percent Finer	96.8				% Passing			04/07/16 15:46	1
Sieve Size #20 - Percent Finer	92.5				% Passing			04/07/16 15:46	1
Sieve Size #40 - Percent Finer	80.4				% Passing			04/07/16 15:46	1
Sieve Size #60 - Percent Finer	65.7				% Passing			04/07/16 15:46	1
Sieve Size #80 - Percent Finer	60.3				% Passing			04/07/16 15:46	1
Sieve Size #100 - Percent Finer	58.0				% Passing			04/07/16 15:46	1
Sieve Size #200 - Percent Finer	53.3				% Passing			04/07/16 15:46	1
Hydrometer Reading 1 - Percent Finer	35.5				% Passing			04/07/16 15:46	1
Hydrometer Reading 2 - Percent Finer	30.7				% Passing			04/07/16 15:46	1
Hydrometer Reading 3 - Percent Finer	25.9				% Passing			04/07/16 15:46	1
Hydrometer Reading 4 - Percent Finer	21.9				% Passing			04/07/16 15:46	1
Hydrometer Reading 5 - Percent Finer	19.5				% Passing			04/07/16 15:46	1
Hydrometer Reading 6 - Percent Finer	13.9				% Passing			04/07/16 15:46	1
Hydrometer Reading 7 - Percent Finer	10.8				% Passing			04/07/16 15:46	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

GC Semi VOA

Prep Batch: 224980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63095-1	SE-040516-JN-001	Total/NA	Solid	3540C	
240-63095-2	SE-040516-JN-002	Total/NA	Solid	3540C	
240-63095-3	SE-040516-JN-003	Total/NA	Solid	3540C	
240-63095-5	SE-040516-JN-005	Total/NA	Solid	3540C	
240-63095-6	SE-040516-JN-006	Total/NA	Solid	3540C	
240-63095-7	SE-040516-JN-007	Total/NA	Solid	3540C	
240-63095-8	SE-040516-JN-008	Total/NA	Solid	3540C	
LCS 240-224980/23-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-224980/22-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 225326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-224980/23-A	Lab Control Sample	Total/NA	Solid	8082	224980
MB 240-224980/22-A	Method Blank	Total/NA	Solid	8082	224980

Analysis Batch: 225344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63095-1	SE-040516-JN-001	Total/NA	Solid	8082	224980
240-63095-2	SE-040516-JN-002	Total/NA	Solid	8082	224980
240-63095-3	SE-040516-JN-003	Total/NA	Solid	8082	224980
240-63095-5	SE-040516-JN-005	Total/NA	Solid	8082	224980
240-63095-6	SE-040516-JN-006	Total/NA	Solid	8082	224980
240-63095-7	SE-040516-JN-007	Total/NA	Solid	8082	224980
240-63095-8	SE-040516-JN-008	Total/NA	Solid	8082	224980

General Chemistry

Analysis Batch: 225069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63095-1	SE-040516-JN-001	Total/NA	Solid	Moisture	
240-63095-1 DU	SE-040516-JN-001	Total/NA	Solid	Moisture	
240-63095-2	SE-040516-JN-002	Total/NA	Solid	Moisture	
240-63095-3	SE-040516-JN-003	Total/NA	Solid	Moisture	
240-63095-5	SE-040516-JN-005	Total/NA	Solid	Moisture	
240-63095-6	SE-040516-JN-006	Total/NA	Solid	Moisture	
240-63095-7	SE-040516-JN-007	Total/NA	Solid	Moisture	
240-63095-8	SE-040516-JN-008	Total/NA	Solid	Moisture	

Geotechnical

Analysis Batch: 103094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63095-4	SE-040516-JN-004	Total/NA	Solid	D422	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-224980/22-A
Matrix: Solid
Analysis Batch: 225326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 224980

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1
Aroclor-1221	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1
Aroclor-1232	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1
Aroclor-1242	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1
Aroclor-1248	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1
Aroclor-1254	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1
Aroclor-1260	33	U	33		ug/Kg		04/07/16 09:08	04/11/16 00:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*53*		*13 - 134*	*04/07/16 09:08*	*04/11/16 00:24*	*1*
DCB Decachlorobiphenyl	*77*		*10 - 155*	*04/07/16 09:08*	*04/11/16 00:24*	*1*

Lab Sample ID: LCS 240-224980/23-A
Matrix: Solid
Analysis Batch: 225326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 224980

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			333	211		ug/Kg		63	51 - 120		
Aroclor-1260			333	241		ug/Kg		72	48 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*65*		*13 - 134*
DCB Decachlorobiphenyl	*83*		*10 - 155*

Method: Moisture - Percent Moisture

Lab Sample ID: 240-63095-1 DU
Matrix: Solid
Analysis Batch: 225069

Client Sample ID: SE-040516-JN-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	66.2			67.8		%				2	20
Percent Moisture	33.8			32.2		%				5	20

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	**Client Sample ID**	**TCX1 (13-134)**	**DCB1 (10-155)**								
240-63095-1	SE-040516-JN-001	225 X	133								
240-63095-2	SE-040516-JN-002	122	150								
240-63095-3	SE-040516-JN-003	813 X	86								
240-63095-5	SE-040516-JN-005	11453 X	178 X								
240-63095-6	SE-040516-JN-006	1990 X	184 X								
240-63095-7	SE-040516-JN-007	1827 X	119								
240-63095-8	SE-040516-JN-008	770 X	73								
LCS 240-224980/23-A	Lab Control Sample	65	83								
MB 240-224980/22-A	Method Blank	53	77								

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Client Sample ID: SE-040516-JN-001 — Lab Sample ID: 240-63095-1

Date Collected: 04/05/16 15:25 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Client Sample ID: SE-040516-JN-001 — Lab Sample ID: 240-63095-1

Date Collected: 04/05/16 15:25 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 66.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		100	225344	04/11/16 13:59	HMB	TAL CAN

Client Sample ID: SE-040516-JN-002 — Lab Sample ID: 240-63095-2

Date Collected: 04/05/16 15:30 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Client Sample ID: SE-040516-JN-002 — Lab Sample ID: 240-63095-2

Date Collected: 04/05/16 15:30 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 71.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		200	225344	04/11/16 14:17	HMB	TAL CAN

Client Sample ID: SE-040516-JN-003 — Lab Sample ID: 240-63095-3

Date Collected: 04/05/16 14:55 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Client Sample ID: SE-040516-JN-003 — Lab Sample ID: 240-63095-3

Date Collected: 04/05/16 14:55 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 82.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		100	225344	04/11/16 14:35	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Client Sample ID: SE-040516-JN-004 — Lab Sample ID: 240-63095-4

Date Collected: 04/05/16 15:15 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	103094	04/07/16 15:46	MAP	TAL BUR

Client Sample ID: SE-040516-JN-005 — Lab Sample ID: 240-63095-5

Date Collected: 04/05/16 15:00 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Client Sample ID: SE-040516-JN-005 — Lab Sample ID: 240-63095-5

Date Collected: 04/05/16 15:00 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 56.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		500	225344	04/11/16 14:54	HMB	TAL CAN

Client Sample ID: SE-040516-JN-006 — Lab Sample ID: 240-63095-6

Date Collected: 04/05/16 16:00 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Client Sample ID: SE-040516-JN-006 — Lab Sample ID: 240-63095-6

Date Collected: 04/05/16 16:00 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 85.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		200	225344	04/11/16 15:12	HMB	TAL CAN

Client Sample ID: SE-040516-JN-007 — Lab Sample ID: 240-63095-7

Date Collected: 04/05/16 16:10 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Client Sample ID: SE-040516-JN-007 — Lab Sample ID: 240-63095-7

Date Collected: 04/05/16 16:10 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 45.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		100	225344	04/11/16 15:31	HMB	TAL CAN

Client Sample ID: SE-040516-JN-008 — Lab Sample ID: 240-63095-8

Date Collected: 04/05/16 16:15 — **Matrix: Solid**
Date Received: 04/06/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225069	04/07/16 13:52	DTN	TAL CAN

Client Sample ID: SE-040516-JN-008 — Lab Sample ID: 240-63095-8

Date Collected: 04/05/16 16:15 — **Matrix: Solid**
Date Received: 04/06/16 09:45 — **Percent Solids: 47.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			224980	04/07/16 09:08	SDE	TAL CAN
Total/NA	Analysis	8082		100	225344	04/11/16 15:49	HMB	TAL CAN

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63095-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16 *
Illinois	NELAP	5	200004	07-31-16 *
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16 *
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-17
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-17
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-17
Florida	NELAP	4	E87467	06-30-16
L-A-B	DoD ELAP		L2336	02-26-17
Maine	State Program	1	VT00008	04-17-17
Minnesota	NELAP	5	050-999-436	12-31-16
New Hampshire	NELAP	1	2006	12-18-16
New Jersey	NELAP	2	VT972	06-30-16
New York	NELAP	2	10391	04-01-17 *
Pennsylvania	NELAP	3	68-00489	04-30-16 *
Rhode Island	State Program	1	LAO00298	12-30-16
US Fish & Wildlife	Federal		LE-058448-0	10-31-16
USDA	Federal		P330-11-00093	10-28-16
Vermont	State Program	1	VT-4000	12-31-16
Virginia	NELAP	3	460209	12-14-16

* Certification renewal pending - certification considered valid.

TestAmerica

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TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-63095 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

GM REALM ENCORE

3.0/C2.5

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 1 OF 1

☐ eCOC in Use

ID: # C#20160405_160956

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	Preservative	/PCBs, Total	/Grain Size	Remarks/Lab ID
1	SE-040516-JN-001	SE	04/05/16	15:25	1		X		
2	SE-040516-JN-002	SE	04/05/16	15:30	1		X		
3	SE-040516-JN-003	SE	04/05/16	14:55	1		X		
4	SE-040516-JN-004	SE	04/05/16	15:15	1			X	
5	SE-040516-JN-005	SE	04/05/16	15:00	1		X		
6	SE-040516-JN-006	SE	04/05/16	16:00	1		X		
7	SE-040516-JN-007	SE	04/05/16	16:10	1		X		
8	SE-040516-JN-008	SE	04/05/16	16:15	1		X		
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
	TOTAL NUMBER OF CONTAINERS				8				

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	1	Jeff Nichols / GHD	04/05/16	17:00	Lance Hal	4-6-16	945
AIRBILL NO: 8682 8736 4807							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Fully Executed Copy

Sampler Name: Jeffrey M. Nichols

Sampler Signature: Date: 04/05/16

REV. 0 (9/04)

4/14/2016

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 63095
Canton Facility

Client GM Site Name BEDFORD

Cooler unpacked by: Lam Hel

Cooler Received on 4-6-16 Opened on 4-6-16

FedEx 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # 7A Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp.____ °C Corrected Cooler Temp.____ °C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp.____ °C Corrected Cooler Temp.____ °C
   IR GUN# 18 (CF -0.5 °C) Observed Cooler Temp. 3.0 °C Corrected Cooler Temp. 2.5 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. ~~Sufficient quantity received to perform indicated analyses?~~ Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #____ Yes No
16. Was a LL Hg or Me Hg trip blank present? ____ Yes No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.

Time preserved: ____ Preservative(s) added/Lot number(s): ____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-63095-1

Login Number: 63095
List Number: 2
Creator: Lavigne III, Scott M

List Source: TestAmerica Burlington
List Creation: 04/07/16 02:03 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.9ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-63182-1
Client Project/Site: 13968, GM Bedford, SSOW# E117018-002

For:
GHD Services Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Rawa Fleisher

Denise D Heckler

Authorized for release by:
4/20/2016 12:58:53 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 240-63182-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-63182-1

Comments
No additional comments.

Receipt
The samples were received on 4/7/2016 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.5º C.

GC Semi VOA
Method(s) 8082: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SE-040616-JN-009 (240-63182-1) and SE-040616-JN-010 (240-63182-2). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: SE-040616-JN-010 (240-63182-2[MSD]) was done at a different dilution than the parent and the MS in order to bring the spike values within calibration range.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040616-JN-009 (240-63182-1), SE-040616-JN-010 (240-63182-2), SE-040616-JN-010 (240-63182-2[MS]), SE-040616-JN-010 (240-63182-2[MSD]) and SE-040616-JN-011 (240-63182-3).2460605, 2103098, 2283704.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040616-JN-012 (240-63182-4), SE-040616-JN-013 (240-63182-5), SE-040616-JN-014 (240-63182-6), SE-040616-JN-015 (240-63182-7), SE-040616-JN-016 (240-63182-8) and SE-040616-JN-017 (240-63182-9). Reagents: 2460606,2103101 and 2283705.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SE-040616-JN-012 (240-63182-4), SE-040616-JN-013 (240-63182-5), SE-040616-JN-014 (240-63182-6), SE-040616-JN-015 (240-63182-7), SE-040616-JN-016 (240-63182-8) and SE-040616-JN-017 (240-63182-9). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3540C: Due to the matrix, the following sample could not be concentrated to the final method required volume: SE-040616-JN-013 (240-63182-5). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-63182-1	SE-040616-JN-009	Solid	04/06/16 10:10	04/07/16 09:20
240-63182-2	SE-040616-JN-010	Solid	04/06/16 10:20	04/07/16 09:20
240-63182-3	SE-040616-JN-011	Solid	04/06/16 10:55	04/07/16 09:20
240-63182-4	SE-040616-JN-012	Solid	04/06/16 11:00	04/07/16 09:20
240-63182-5	SE-040616-JN-013	Solid	04/06/16 12:30	04/07/16 09:20
240-63182-6	SE-040616-JN-014	Solid	04/06/16 12:40	04/07/16 09:20
240-63182-7	SE-040616-JN-015	Solid	04/06/16 13:35	04/07/16 09:20
240-63182-8	SE-040616-JN-016	Solid	04/06/16 13:40	04/07/16 09:20
240-63182-9	SE-040616-JN-017	Solid	04/06/16 13:50	04/07/16 09:20

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Client Sample ID: SE-040616-JN-009 — Lab Sample ID: 240-63182-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	26000		3500		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-010 — Lab Sample ID: 240-63182-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1221	160000		35000		ug/Kg	500	☼	8082	Total/NA
Aroclor-1248	70000		35000		ug/Kg	500	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-011 — Lab Sample ID: 240-63182-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	46000		6600		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-012 — Lab Sample ID: 240-63182-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	130000		34000		ug/Kg	500	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-013 — Lab Sample ID: 240-63182-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	12000		1400		ug/Kg	20	☼	8082	Total/NA
Aroclor-1254	2000		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-014 — Lab Sample ID: 240-63182-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	7000		1500		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-015 — Lab Sample ID: 240-63182-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	5900		780		ug/Kg	10	☼	8082	Total/NA
Aroclor-1254	1000		780		ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-016 — Lab Sample ID: 240-63182-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	40000		5400		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040616-JN-017 — Lab Sample ID: 240-63182-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1221	690		580		ug/Kg	10	☼	8082	Total/NA
Aroclor-1248	6800		580		ug/Kg	10	☼	8082	Total/NA
Aroclor-1260	680		580		ug/Kg	10	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-009
Date Collected: 04/06/16 10:10
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-1
Matrix: Solid
Percent Solids: 48.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3500	U	3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50
Aroclor-1221	3500	U	3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50
Aroclor-1232	3500	U	3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50
Aroclor-1242	3500	U	3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50
Aroclor-1248	**26000**		3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50
Aroclor-1254	3500	U	3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50
Aroclor-1260	3500	U	3500		ug/Kg	☼	04/08/16 08:24	04/11/16 10:35	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*168*	*X*	*13 - 134*	*04/08/16 08:24*	*04/11/16 10:35*	*50*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/08/16 08:24*	*04/11/16 10:35*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-010
Date Collected: 04/06/16 10:20
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-2
Matrix: Solid
Percent Solids: 47.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	35000	U F2	35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500
Aroclor-1221	**160000**		35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500
Aroclor-1232	35000	U	35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500
Aroclor-1242	35000	U	35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500
Aroclor-1248	**70000**		35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500
Aroclor-1254	35000	U	35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500
Aroclor-1260	35000	U	35000	ug/Kg	☼	04/08/16 08:24	04/11/16 10:53	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*1202*	*X*	*13 - 134*	*04/08/16 08:24*	*04/11/16 10:53*	*500*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/08/16 08:24*	*04/11/16 10:53*	*500*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-011
Date Collected: 04/06/16 10:55
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-3
Matrix: Solid
Percent Solids: 49.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	6600	U	6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100
Aroclor-1221	6600	U	6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100
Aroclor-1232	6600	U	6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100
Aroclor-1242	**46000**		6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100
Aroclor-1248	6600	U	6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100
Aroclor-1254	6600	U	6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100
Aroclor-1260	6600	U	6600	ug/Kg	☼	04/08/16 08:24	04/11/16 13:12	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*261*	*X*	*13 - 134*	*04/08/16 08:24*	*04/11/16 13:12*	*100*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/08/16 08:24*	*04/11/16 13:12*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-012
Date Collected: 04/06/16 11:00
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-4
Matrix: Solid
Percent Solids: 48.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	34000	U	34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500
Aroclor-1221	34000	U	34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500
Aroclor-1232	34000	U	34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500
Aroclor-1242	**130000**		34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500
Aroclor-1248	34000	U	34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500
Aroclor-1254	34000	U	34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500
Aroclor-1260	34000	U	34000		ug/Kg	☼	04/11/16 08:06	04/13/16 20:45	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*3686*	*X*	*13 - 134*	*04/11/16 08:06*	*04/13/16 20:45*	*500*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/11/16 08:06*	*04/13/16 20:45*	*500*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-013
Date Collected: 04/06/16 12:30
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-5
Matrix: Solid
Percent Solids: 50.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20
Aroclor-1221	1400	U	1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20
Aroclor-1232	1400	U	1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20
Aroclor-1242	**12000**		1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20
Aroclor-1248	1400	U	1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20
Aroclor-1254	**2000**		1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20
Aroclor-1260	1400	U	1400	ug/Kg	☼	04/11/16 08:06	04/13/16 21:03	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*271*	*X*	*13 - 134*	*04/11/16 08:06*	*04/13/16 21:03*	*20*
DCB Decachlorobiphenyl	*158*	*X*	*10 - 155*	*04/11/16 08:06*	*04/13/16 21:03*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-014
Date Collected: 04/06/16 12:40
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-6
Matrix: Solid
Percent Solids: 43.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1500	U	1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20
Aroclor-1221	1500	U	1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20
Aroclor-1232	1500	U	1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20
Aroclor-1242	**7000**		1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20
Aroclor-1248	1500	U	1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20
Aroclor-1254	1500	U	1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20
Aroclor-1260	1500	U	1500	ug/Kg	☼	04/11/16 08:06	04/13/16 21:22	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*142*	*X*	*13 - 134*	*04/11/16 08:06*	*04/13/16 21:22*	*20*
DCB Decachlorobiphenyl	*63*		*10 - 155*	*04/11/16 08:06*	*04/13/16 21:22*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-015
Date Collected: 04/06/16 13:35
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-7
Matrix: Solid
Percent Solids: 42.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	780	U	780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10
Aroclor-1221	780	U	780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10
Aroclor-1232	780	U	780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10
Aroclor-1242	**5900**		780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10
Aroclor-1248	780	U	780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10
Aroclor-1254	**1000**		780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10
Aroclor-1260	780	U	780	ug/Kg	☼	04/11/16 08:06	04/13/16 21:40	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*13 - 134*	*04/11/16 08:06*	*04/13/16 21:40*	*10*
DCB Decachlorobiphenyl	*39*		*10 - 155*	*04/11/16 08:06*	*04/13/16 21:40*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-016
Date Collected: 04/06/16 13:40
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-8
Matrix: Solid
Percent Solids: 62.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	5400	U	5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100
Aroclor-1221	5400	U	5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100
Aroclor-1232	5400	U	5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100
Aroclor-1242	**40000**		5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100
Aroclor-1248	5400	U	5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100
Aroclor-1254	5400	U	5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100
Aroclor-1260	5400	U	5400	ug/Kg	☼	04/11/16 08:06	04/13/16 22:17	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*1049*	*X*	*13 - 134*	*04/11/16 08:06*	*04/13/16 22:17*	*100*
DCB Decachlorobiphenyl	*224*	*X*	*10 - 155*	*04/11/16 08:06*	*04/13/16 22:17*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040616-JN-017
Date Collected: 04/06/16 13:50
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-9
Matrix: Solid
Percent Solids: 56.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	580	U	580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10
Aroclor-1221	**690**		580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10
Aroclor-1232	580	U	580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10
Aroclor-1242	580	U	580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10
Aroclor-1248	**6800**		580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10
Aroclor-1254	580	U	580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10
Aroclor-1260	**680**		580	ug/Kg	☼	04/11/16 08:06	04/13/16 22:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*155*	*X*	*13 - 134*	*04/11/16 08:06*	*04/13/16 22:36*	*10*
DCB Decachlorobiphenyl	*155*		*10 - 155*	*04/11/16 08:06*	*04/13/16 22:36*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-009
Date Collected: 04/06/16 10:10
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-1
Matrix: Solid
Percent Solids: 48.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	48.0		0.1		%			04/08/16 13:53	1
Percent Moisture	52.0		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-010
Date Collected: 04/06/16 10:20
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-2
Matrix: Solid
Percent Solids: 47.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.6**		0.1		%			04/08/16 13:53	1
Percent Moisture	**52.4**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-011
Date Collected: 04/06/16 10:55
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-3
Matrix: Solid
Percent Solids: 49.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**49.8**		0.1		%			04/08/16 13:53	1
Percent Moisture	**50.2**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-012
Date Collected: 04/06/16 11:00
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-4
Matrix: Solid
Percent Solids: 48.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**48.5**		0.1		%			04/08/16 13:53	1
Percent Moisture	**51.5**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-013
Date Collected: 04/06/16 12:30
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-5
Matrix: Solid
Percent Solids: 50.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**50.5**		0.1		%			04/08/16 13:53	1
Percent Moisture	**49.5**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-014
Date Collected: 04/06/16 12:40
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-6
Matrix: Solid
Percent Solids: 43.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**43.1**		0.1		%			04/08/16 13:53	1
Percent Moisture	**56.9**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-015
Date Collected: 04/06/16 13:35
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-7
Matrix: Solid
Percent Solids: 42.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**42.4**		0.1		%			04/08/16 13:53	1
Percent Moisture	**57.6**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-016
Date Collected: 04/06/16 13:40
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-8
Matrix: Solid
Percent Solids: 62.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**62.0**		0.1		%			04/08/16 13:53	1
Percent Moisture	**38.0**		0.1		%			04/08/16 13:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

General Chemistry

Client Sample ID: SE-040616-JN-017
Date Collected: 04/06/16 13:50
Date Received: 04/07/16 09:20

Lab Sample ID: 240-63182-9
Matrix: Solid
Percent Solids: 56.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**56.5**		0.1		%			04/08/16 13:53	1
Percent Moisture	**43.5**		0.1		%			04/08/16 13:53	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

GC Semi VOA

Prep Batch: 225157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63182-1	SE-040616-JN-009	Total/NA	Solid	3540C	
240-63182-2	SE-040616-JN-010	Total/NA	Solid	3540C	
240-63182-2 MS	SE-040616-JN-010	Total/NA	Solid	3540C	
240-63182-2 MSD	SE-040616-JN-010	Total/NA	Solid	3540C	
240-63182-3	SE-040616-JN-011	Total/NA	Solid	3540C	
LCS 240-225157/10-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225157/9-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 225331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63182-1	SE-040616-JN-009	Total/NA	Solid	8082	225157
240-63182-2	SE-040616-JN-010	Total/NA	Solid	8082	225157
240-63182-2 MS	SE-040616-JN-010	Total/NA	Solid	8082	225157
240-63182-2 MSD	SE-040616-JN-010	Total/NA	Solid	8082	225157
240-63182-3	SE-040616-JN-011	Total/NA	Solid	8082	225157
LCS 240-225157/10-A	Lab Control Sample	Total/NA	Solid	8082	225157
MB 240-225157/9-A	Method Blank	Total/NA	Solid	8082	225157

Prep Batch: 225374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63182-4	SE-040616-JN-012	Total/NA	Solid	3540C	
240-63182-5	SE-040616-JN-013	Total/NA	Solid	3540C	
240-63182-6	SE-040616-JN-014	Total/NA	Solid	3540C	
240-63182-7	SE-040616-JN-015	Total/NA	Solid	3540C	
240-63182-8	SE-040616-JN-016	Total/NA	Solid	3540C	
240-63182-9	SE-040616-JN-017	Total/NA	Solid	3540C	
LCS 240-225374/24-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225374/23-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 225851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63182-4	SE-040616-JN-012	Total/NA	Solid	8082	225374
240-63182-5	SE-040616-JN-013	Total/NA	Solid	8082	225374
240-63182-6	SE-040616-JN-014	Total/NA	Solid	8082	225374
240-63182-7	SE-040616-JN-015	Total/NA	Solid	8082	225374
240-63182-8	SE-040616-JN-016	Total/NA	Solid	8082	225374
240-63182-9	SE-040616-JN-017	Total/NA	Solid	8082	225374
LCS 240-225374/24-A	Lab Control Sample	Total/NA	Solid	8082	225374
MB 240-225374/23-A	Method Blank	Total/NA	Solid	8082	225374

General Chemistry

Analysis Batch: 225236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63182-1	SE-040616-JN-009	Total/NA	Solid	Moisture	
240-63182-2	SE-040616-JN-010	Total/NA	Solid	Moisture	
240-63182-2 DU	SE-040616-JN-010	Total/NA	Solid	Moisture	
240-63182-3	SE-040616-JN-011	Total/NA	Solid	Moisture	
240-63182-4	SE-040616-JN-012	Total/NA	Solid	Moisture	
240-63182-5	SE-040616-JN-013	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 225236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63182-6	SE-040616-JN-014	Total/NA	Solid	Moisture	
240-63182-7	SE-040616-JN-015	Total/NA	Solid	Moisture	
240-63182-8	SE-040616-JN-016	Total/NA	Solid	Moisture	
240-63182-9	SE-040616-JN-017	Total/NA	Solid	Moisture	

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-225157/9-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225331 — **Prep Batch: 225157**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1
Aroclor-1221	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1
Aroclor-1232	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1
Aroclor-1242	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1
Aroclor-1248	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1
Aroclor-1254	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1
Aroclor-1260	33	U	33	ug/Kg		04/08/16 08:24	04/11/16 14:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*13 - 134*	*04/08/16 08:24*	*04/11/16 14:57*	*1*
DCB Decachlorobiphenyl	*86*		*10 - 155*	*04/08/16 08:24*	*04/11/16 14:57*	*1*

Lab Sample ID: LCS 240-225157/10-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225331 — **Prep Batch: 225157**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	333	268		ug/Kg		80	51 - 120
Aroclor-1260	333	254		ug/Kg		76	48 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*85*		*13 - 134*
DCB Decachlorobiphenyl	*86*		*10 - 155*

Lab Sample ID: 240-63182-2 MS — **Client Sample ID: SE-040616-JN-010**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225331 — **Prep Batch: 225157**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	35000	U F2	706	121000		ug/Kg	☼	NC	17 - 141
Aroclor-1260	35000	U	706	35000	U	ug/Kg	☼	NC	19 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*1179*	*X*	*13 - 134*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*

Lab Sample ID: 240-63182-2 MSD — **Client Sample ID: SE-040616-JN-010**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225331 — **Prep Batch: 225157**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor-1016	35000	U F2	703	878000	F2	ug/Kg	☼	NC	17 - 141	152	56
Aroclor-1260	35000	U	703	70000	U	ug/Kg	☼	NC	19 - 137	NC	55

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*2581*	*X*	*13 - 134*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*

QC Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Lab Sample ID: MB 240-225374/23-A
Matrix: Solid
Analysis Batch: 225851

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225374

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1221	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1232	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1242	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1248	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1254	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1260	33	U	33		ug/Kg		04/11/16 08:06	04/13/16 20:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*13 - 134*	*04/11/16 08:06*	*04/13/16 20:08*	*1*
DCB Decachlorobiphenyl	*90*		*10 - 155*	*04/11/16 08:06*	*04/13/16 20:08*	*1*

Lab Sample ID: LCS 240-225374/24-A
Matrix: Solid
Analysis Batch: 225851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225374

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			333	236		ug/Kg		71	51 - 120		
Aroclor-1260			333	278		ug/Kg		84	48 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*69*		*13 - 134*
DCB Decachlorobiphenyl	*94*		*10 - 155*

Method: Moisture - Percent Moisture

Lab Sample ID: 240-63182-2 DU
Matrix: Solid
Analysis Batch: 225236

Client Sample ID: SE-040616-JN-010
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	47.6			48.9		%				3	20
Percent Moisture	52.4			51.1		%				3	20

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	TCX2 (13-134)	DCB2 (10-155)								
240-63182-1	SE-040616-JN-009	168 X	0 X								
240-63182-2	SE-040616-JN-010	1202 X	0 X								
240-63182-2 MS	SE-040616-JN-010	1179 X	0 X								
240-63182-2 MSD	SE-040616-JN-010	2581 X	0 X								
240-63182-3	SE-040616-JN-011	261 X	0 X								
LCS 240-225157/10-A	Lab Control Sample	85	86								
MB 240-225157/9-A	Method Blank	74	86								

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	TCX1 (13-134)	DCB1 (10-155)								
240-63182-4	SE-040616-JN-012	3686 X	0 X								
240-63182-5	SE-040616-JN-013	271 X	158 X								
240-63182-6	SE-040616-JN-014	142 X	63								
240-63182-7	SE-040616-JN-015	99	39								
240-63182-8	SE-040616-JN-016	1049 X	224 X								
240-63182-9	SE-040616-JN-017	155 X	155								
LCS 240-225374/24-A	Lab Control Sample	69	94								
MB 240-225374/23-A	Method Blank	68	90								

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Client Sample ID: SE-040616-JN-009 — Lab Sample ID: 240-63182-1

Date Collected: 04/06/16 10:10 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-009 — Lab Sample ID: 240-63182-1

Date Collected: 04/06/16 10:10 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 48.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225157	04/08/16 08:24	YDN	TAL CAN
Total/NA	Analysis	8082		50	225331	04/11/16 10:35	HMB	TAL CAN

Client Sample ID: SE-040616-JN-010 — Lab Sample ID: 240-63182-2

Date Collected: 04/06/16 10:20 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-010 — Lab Sample ID: 240-63182-2

Date Collected: 04/06/16 10:20 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 47.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225157	04/08/16 08:24	YDN	TAL CAN
Total/NA	Analysis	8082		500	225331	04/11/16 10:53	HMB	TAL CAN

Client Sample ID: SE-040616-JN-011 — Lab Sample ID: 240-63182-3

Date Collected: 04/06/16 10:55 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-011 — Lab Sample ID: 240-63182-3

Date Collected: 04/06/16 10:55 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 49.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225157	04/08/16 08:24	YDN	TAL CAN
Total/NA	Analysis	8082		100	225331	04/11/16 13:12	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Client Sample ID: SE-040616-JN-012 — Lab Sample ID: 240-63182-4

Date Collected: 04/06/16 11:00 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-012 — Lab Sample ID: 240-63182-4

Date Collected: 04/06/16 11:00 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 48.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		500	225851	04/13/16 20:45	HMB	TAL CAN

Client Sample ID: SE-040616-JN-013 — Lab Sample ID: 240-63182-5

Date Collected: 04/06/16 12:30 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-013 — Lab Sample ID: 240-63182-5

Date Collected: 04/06/16 12:30 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 50.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		20	225851	04/13/16 21:03	HMB	TAL CAN

Client Sample ID: SE-040616-JN-014 — Lab Sample ID: 240-63182-6

Date Collected: 04/06/16 12:40 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-014 — Lab Sample ID: 240-63182-6

Date Collected: 04/06/16 12:40 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 43.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		20	225851	04/13/16 21:22	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Client Sample ID: SE-040616-JN-015 — Lab Sample ID: 240-63182-7

Date Collected: 04/06/16 13:35 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-015 — Lab Sample ID: 240-63182-7

Date Collected: 04/06/16 13:35 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 42.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		10	225851	04/13/16 21:40	HMB	TAL CAN

Client Sample ID: SE-040616-JN-016 — Lab Sample ID: 240-63182-8

Date Collected: 04/06/16 13:40 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-016 — Lab Sample ID: 240-63182-8

Date Collected: 04/06/16 13:40 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 62.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		100	225851	04/13/16 22:17	HMB	TAL CAN

Client Sample ID: SE-040616-JN-017 — Lab Sample ID: 240-63182-9

Date Collected: 04/06/16 13:50 — **Matrix: Solid**
Date Received: 04/07/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225236	04/08/16 13:53	BLW	TAL CAN

Client Sample ID: SE-040616-JN-017 — Lab Sample ID: 240-63182-9

Date Collected: 04/06/16 13:50 — **Matrix: Solid**
Date Received: 04/07/16 09:20 — **Percent Solids: 56.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		10	225851	04/13/16 22:36	HMB	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63182-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16 *
Illinois	NELAP	5	200004	07-31-16 *
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16 *
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-17
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-63182 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

GM REALM ENCORE

1.0/C0.5

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 1 OF 1

☐ eCOC in Use

ID: # C#20160406_131908

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Preservative

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	/PCBs, Total	Remarks/Lab ID
1	SE-040616-JN-009	SE	04/06/16	10:10	1	X	
2	SE-040616-JN-010	SE	04/06/16	10:20	2	X	MS/MSD
3	SE-040616-JN-011	SE	04/06/16	10:55	1	X	
4	SE-040616-JN-012	SE	04/06/16	11:00	1	X	
5	SE-040616-JN-013	SE	04/06/16	12:30	1	X	
6	SE-040616-JN-014	SE	04/06/16	12:40	1	X	
7	SE-040616-JN-015	SE	04/06/16	13:35	1	X	
8	SE-040616-JN-016	SE	04/06/16	13:40	1	X	
9	SE-040616-JN-017	SE	04/06/16	13:50	1	X	
10							
11							
12							
13							
14							
15							
16							
17							
18							
	TOTAL NUMBER OF CONTAINERS				10		

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	1	Jeff Nichols / GHD	04/06/16	14:00	[signature] TAL	4-7-16	920
AIRBILL NO: 8682 8736 4792							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Fully Executed Copy

Sampler Name: Jeffrey M. Nichols

Sampler Signature: [signature] Date: 04/06/16

REV. 0 (9/04)

4/20/2016

Page 36 of 37

TestAmerica Canton Sample Receipt Form/Narrative **Login #:** 43782
Canton Facility

Client GHD Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 4-7-10 Opened on 4-7-10

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 1.0 °C Corrected Cooler Temp. 0.5 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-63235-1
Client Project/Site: 13968, GM Bedford, SSOW# E117018-002

For:
GHD Services Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Rawa Fleisher

Denise D Heckler

Authorized for release by:
4/22/2016 2:12:24 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 240-63235-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-63235-1

Comments
No additional comments.

Receipt
The samples were received on 4/8/2016 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5º C.

GC Semi VOA
Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040716-JN-018 (240-63235-1), SE-040716-JN-019 (240-63235-2), SE-040716-JN-020 (240-63235-3), SE-040716-JN-022 (240-63235-5), SE-040716-JN-023 (240-63235-6), SE-040716-JN-024 (240-63235-7), SE-040716-JN-026 (240-63235-9), SE-040716-JN-027 (240-63235-10), SE-040716-JN-028 (240-63235-11) and SE-040716-JN-029 (240-63235-12). Reagents: 2460606,2103101 and 2283705.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SE-040716-JN-018 (240-63235-1), SE-040716-JN-019 (240-63235-2), SE-040716-JN-020 (240-63235-3), SE-040716-JN-022 (240-63235-5), SE-040716-JN-023 (240-63235-6), SE-040716-JN-024 (240-63235-7), SE-040716-JN-026 (240-63235-9), SE-040716-JN-027 (240-63235-10), SE-040716-JN-028 (240-63235-11) and SE-040716-JN-029 (240-63235-12). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SE-040716-JN-031 (240-63235-14), SE-040716-JN-032 (240-63235-15), SE-040716-JN-034 (240-63235-17), SE-040716-JN-035 (240-63235-18), SE-040716-JN-036 (240-63235-19) and SE-040716-JN-038 (240-63235-21). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040716-JN-031 (240-63235-14), SE-040716-JN-032 (240-63235-15), SE-040716-JN-034 (240-63235-17), SE-040716-JN-035 (240-63235-18), SE-040716-JN-036 (240-63235-19), SE-040716-JN-038 (240-63235-21), (240-63268-E-13-B), (240-63268-E-13-C MS) and (240-63268-E-13-D MSD). 2460608, 2103100, 2283703.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SE-040716-JN-021 (240-63235-4), SE-040716-JN-025 (240-63235-8) and SE-040716-JN-030 (240-63235-13). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040716-JN-021 (240-63235-4), SE-040716-JN-025 (240-63235-8), SE-040716-JN-030 (240-63235-13), (240-63235-B-13-B MS) and (240-63235-B-13-C MSD). Reagents: 2485537,2103101 and 2283705.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040716-JN-033 (240-63235-16), SE-040716-JN-033 (240-63235-16[MS]) and SE-040716-JN-033 (240-63235-16[MSD]). 2485537, 2103100, 2283703.

Method(s) 8082: The following samples was diluted due to abundance of target analytes: SE-040716-JN-033 (240-63235-16[MS]) and SE-040716-JN-033 (240-63235-16[MSD]). As such, surrogate and MS/MSD spike recoveries were diluted out and are not reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 240-63235-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Geotechnical
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3540C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SE-040716-JN-024 (240-63235-7) and SE-040716-JN-027 (240-63235-10). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-63235-1	SE-040716-JN-018	Solid	04/07/16 09:20	04/08/16 09:40
240-63235-2	SE-040716-JN-019	Solid	04/07/16 09:25	04/08/16 09:40
240-63235-3	SE-040716-JN-020	Solid	04/07/16 09:30	04/08/16 09:40
240-63235-4	SE-040716-JN-021	Solid	04/07/16 09:45	04/08/16 09:40
240-63235-5	SE-040716-JN-022	Solid	04/07/16 09:50	04/08/16 09:40
240-63235-6	SE-040716-JN-023	Solid	04/07/16 09:55	04/08/16 09:40
240-63235-7	SE-040716-JN-024	Solid	04/07/16 10:00	04/08/16 09:40
240-63235-8	SE-040716-JN-025	Solid	04/07/16 10:30	04/08/16 09:40
240-63235-9	SE-040716-JN-026	Solid	04/07/16 10:40	04/08/16 09:40
240-63235-10	SE-040716-JN-027	Solid	04/07/16 10:45	04/08/16 09:40
240-63235-11	SE-040716-JN-028	Solid	04/07/16 11:30	04/08/16 09:40
240-63235-12	SE-040716-JN-029	Solid	04/07/16 11:35	04/08/16 09:40
240-63235-13	SE-040716-JN-030	Solid	04/07/16 13:35	04/08/16 09:40
240-63235-14	SE-040716-JN-031	Solid	04/07/16 13:40	04/08/16 09:40
240-63235-15	SE-040716-JN-032	Solid	04/07/16 13:45	04/08/16 09:40
240-63235-16	SE-040716-JN-033	Solid	04/07/16 13:55	04/08/16 09:40
240-63235-17	SE-040716-JN-034	Solid	04/07/16 15:10	04/08/16 09:40
240-63235-18	SE-040716-JN-035	Solid	04/07/16 15:15	04/08/16 09:40
240-63235-19	SE-040716-JN-036	Solid	04/07/16 15:20	04/08/16 09:40
240-63235-20	SE-040716-JN-037	Solid	04/07/16 15:30	04/08/16 09:40
240-63235-21	SE-040716-JN-038	Solid	04/07/16 15:45	04/08/16 09:40

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-018 — Lab Sample ID: 240-63235-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	5400		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-019 — Lab Sample ID: 240-63235-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	2700		680		ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-020 — Lab Sample ID: 240-63235-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	240000		43000		ug/Kg	1000	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-021 — Lab Sample ID: 240-63235-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	370		62		ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-022 — Lab Sample ID: 240-63235-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	620000		78000		ug/Kg	1000	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-023 — Lab Sample ID: 240-63235-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	16000		3800		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-024 — Lab Sample ID: 240-63235-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	1000000		160000		ug/Kg	1000	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-025 — Lab Sample ID: 240-63235-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	28000		3100		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-026 — Lab Sample ID: 240-63235-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	1500		610		ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-027 — Lab Sample ID: 240-63235-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	17000		10000		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-028 — Lab Sample ID: 240-63235-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-028 (Continued) — Lab Sample ID: 240-63235-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	5700		710		ug/Kg	10	☼	8082	Total/NA
Aroclor-1254	1200		710		ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-029 — Lab Sample ID: 240-63235-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	7400		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-030 — Lab Sample ID: 240-63235-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	730		300		ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-031 — Lab Sample ID: 240-63235-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	2300		690		ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-032 — Lab Sample ID: 240-63235-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	58000		7500		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-033 — Lab Sample ID: 240-63235-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	89000		32000		ug/Kg	500	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-034 — Lab Sample ID: 240-63235-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	1200		320		ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	410		320		ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-035 — Lab Sample ID: 240-63235-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	84000		15000		ug/Kg	200	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-036 — Lab Sample ID: 240-63235-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	20000		3000		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040716-JN-037 — Lab Sample ID: 240-63235-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Gravel	2.0				%	1		D422	Total/NA
Sieve Size 3 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sand	22.0				%	1		D422	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-037 (Continued) — Lab Sample ID: 240-63235-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Sieve Size 2 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Coarse Sand	1.7				%	1		D422	Total/NA
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Medium Sand	5.2				%	1		D422	Total/NA
Sieve Size 1 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Fine Sand	15.1				%	1		D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sieve Size 0.375 inch - Percent Finer	98.6				% Passing	1		D422	Total/NA
Silt	43.5				%	1		D422	Total/NA
Clay	32.5				%	1		D422	Total/NA
Sieve Size #4 - Percent Finer	98.0				% Passing	1		D422	Total/NA
Sieve Size #10 - Percent Finer	96.3				% Passing	1		D422	Total/NA
Sieve Size #20 - Percent Finer	94.2				% Passing	1		D422	Total/NA
Sieve Size #40 - Percent Finer	91.1				% Passing	1		D422	Total/NA
Sieve Size #60 - Percent Finer	87.2				% Passing	1		D422	Total/NA
Sieve Size #80 - Percent Finer	84.3				% Passing	1		D422	Total/NA
Sieve Size #100 - Percent Finer	82.2				% Passing	1		D422	Total/NA
Sieve Size #200 - Percent Finer	76.0				% Passing	1		D422	Total/NA
Hydrometer Reading 1 - Percent Finer	52.9				% Passing	1		D422	Total/NA
Hydrometer Reading 2 - Percent Finer	49.6				% Passing	1		D422	Total/NA
Hydrometer Reading 3 - Percent Finer	41.5				% Passing	1		D422	Total/NA
Hydrometer Reading 4 - Percent Finer	36.6				% Passing	1		D422	Total/NA
Hydrometer Reading 5 - Percent Finer	32.5				% Passing	1		D422	Total/NA
Hydrometer Reading 6 - Percent Finer	26.3				% Passing	1		D422	Total/NA
Hydrometer Reading 7 - Percent Finer	20.6				% Passing	1		D422	Total/NA

Client Sample ID: SE-040716-JN-038 — Lab Sample ID: 240-63235-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	2200		350		ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	460		350		ug/Kg	5	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
D422	Grain Size	ASTM	TAL BUR

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-018
Date Collected: 04/07/16 09:20
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-1
Matrix: Solid
Percent Solids: 47.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20
Aroclor-1221	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20
Aroclor-1232	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20
Aroclor-1242	**5400**		1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20
Aroclor-1248	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20
Aroclor-1254	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20
Aroclor-1260	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/13/16 22:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*129*		*13 - 134*	*04/11/16 08:06*	*04/13/16 22:54*	*20*
DCB Decachlorobiphenyl	*76*		*10 - 155*	*04/11/16 08:06*	*04/13/16 22:54*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-019
Date Collected: 04/07/16 09:25
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-2
Matrix: Solid
Percent Solids: 49.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	680	U	680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10
Aroclor-1221	680	U	680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10
Aroclor-1232	680	U	680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10
Aroclor-1242	**2700**		680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10
Aroclor-1248	680	U	680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10
Aroclor-1254	680	U	680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10
Aroclor-1260	680	U	680		ug/Kg	☼	04/11/16 08:06	04/13/16 23:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*13 - 134*	*04/11/16 08:06*	*04/13/16 23:12*	*10*
DCB Decachlorobiphenyl	*21*		*10 - 155*	*04/11/16 08:06*	*04/13/16 23:12*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-020
Date Collected: 04/07/16 09:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-3
Matrix: Solid
Percent Solids: 76.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	43000	U	43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000
Aroclor-1221	43000	U	43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000
Aroclor-1232	43000	U	43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000
Aroclor-1242	**240000**		43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000
Aroclor-1248	43000	U	43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000
Aroclor-1254	43000	U	43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000
Aroclor-1260	43000	U	43000	ug/Kg	☼	04/11/16 08:06	04/13/16 23:49	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*14673*	*X*	*13 - 134*	*04/11/16 08:06*	*04/13/16 23:49*	*1000*
DCB Decachlorobiphenyl	*523*	*X*	*10 - 155*	*04/11/16 08:06*	*04/13/16 23:49*	*1000*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-021
Date Collected: 04/07/16 09:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-4
Matrix: Solid
Percent Solids: 54.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	62	U	62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1
Aroclor-1221	62	U	62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1
Aroclor-1232	62	U	62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1
Aroclor-1242	**370**		62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1
Aroclor-1248	62	U	62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1
Aroclor-1254	62	U	62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1
Aroclor-1260	62	U	62		ug/Kg	☼	04/11/16 08:06	04/15/16 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*24*		*13 - 134*	*04/11/16 08:06*	*04/15/16 12:09*	*1*
DCB Decachlorobiphenyl	*23*		*10 - 155*	*04/11/16 08:06*	*04/15/16 12:09*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-022
Date Collected: 04/07/16 09:50
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-5
Matrix: Solid
Percent Solids: 42.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	78000	U	78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000
Aroclor-1221	78000	U	78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000
Aroclor-1232	78000	U	78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000
Aroclor-1242	**620000**		78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000
Aroclor-1248	78000	U	78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000
Aroclor-1254	78000	U	78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000
Aroclor-1260	78000	U	78000		ug/Kg	☼	04/11/16 08:06	04/14/16 00:26	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*9623*	*X*	*13 - 134*	*04/11/16 08:06*	*04/14/16 00:26*	*1000*
DCB Decachlorobiphenyl	*1153*	*X*	*10 - 155*	*04/11/16 08:06*	*04/14/16 00:26*	*1000*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-023
Date Collected: 04/07/16 09:55
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-6
Matrix: Solid
Percent Solids: 43.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3800	U	3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50
Aroclor-1221	3800	U	3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50
Aroclor-1232	3800	U	3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50
Aroclor-1242	**16000**		3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50
Aroclor-1248	3800	U	3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50
Aroclor-1254	3800	U	3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50
Aroclor-1260	3800	U	3800		ug/Kg	☼	04/11/16 08:06	04/14/16 00:44	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*267*	*X*	*13 - 134*	*04/11/16 08:06*	*04/14/16 00:44*	*50*
DCB Decachlorobiphenyl	*190*	*X*	*10 - 155*	*04/11/16 08:06*	*04/14/16 00:44*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-024
Date Collected: 04/07/16 10:00
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-7
Matrix: Solid
Percent Solids: 43.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	160000	U	160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000
Aroclor-1221	160000	U	160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000
Aroclor-1232	160000	U	160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000
Aroclor-1242	**1000000**		160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000
Aroclor-1248	160000	U	160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000
Aroclor-1254	160000	U	160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000
Aroclor-1260	160000	U	160000		ug/Kg	☼	04/11/16 08:06	04/14/16 02:16	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*23086*	*X*	*13 - 134*	*04/11/16 08:06*	*04/14/16 02:16*	*1000*
DCB Decachlorobiphenyl	*2486*	*X*	*10 - 155*	*04/11/16 08:06*	*04/14/16 02:16*	*1000*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-025
Date Collected: 04/07/16 10:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-8
Matrix: Solid
Percent Solids: 52.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3100	U	3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50
Aroclor-1221	3100	U	3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50
Aroclor-1232	3100	U	3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50
Aroclor-1242	**28000**		3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50
Aroclor-1248	3100	U	3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50
Aroclor-1254	3100	U	3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50
Aroclor-1260	3100	U	3100	ug/Kg	☼	04/11/16 08:06	04/15/16 12:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*948*	*X*	*13 - 134*	*04/11/16 08:06*	*04/15/16 12:27*	*50*
DCB Decachlorobiphenyl	*160*	*X*	*10 - 155*	*04/11/16 08:06*	*04/15/16 12:27*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-026
Date Collected: 04/07/16 10:40
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-9
Matrix: Solid
Percent Solids: 53.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	610	U	610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10
Aroclor-1221	610	U	610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10
Aroclor-1232	610	U	610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10
Aroclor-1242	**1500**		610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10
Aroclor-1248	610	U	610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10
Aroclor-1254	610	U	610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10
Aroclor-1260	610	U	610		ug/Kg	☼	04/11/16 08:06	04/14/16 02:53	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*13 - 134*	*04/11/16 08:06*	*04/14/16 02:53*	*10*
DCB Decachlorobiphenyl	*52*		*10 - 155*	*04/11/16 08:06*	*04/14/16 02:53*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-027
Date Collected: 04/07/16 10:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-10
Matrix: Solid
Percent Solids: 42.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	10000	U	10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100
Aroclor-1221	10000	U	10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100
Aroclor-1232	10000	U	10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100
Aroclor-1242	**17000**		10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100
Aroclor-1248	10000	U	10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100
Aroclor-1254	10000	U	10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100
Aroclor-1260	10000	U	10000	ug/Kg	☼	04/11/16 08:06	04/14/16 03:11	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*390*	*X*	*13 - 134*	*04/11/16 08:06*	*04/14/16 03:11*	*100*
DCB Decachlorobiphenyl	*216*	*X*	*10 - 155*	*04/11/16 08:06*	*04/14/16 03:11*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-028
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-11
Matrix: Solid
Percent Solids: 46.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	710	U	710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10
Aroclor-1221	710	U	710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10
Aroclor-1232	710	U	710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10
Aroclor-1242	**5700**		710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10
Aroclor-1248	710	U	710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10
Aroclor-1254	**1200**		710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10
Aroclor-1260	710	U	710	ug/Kg	☼	04/11/16 08:06	04/14/16 03:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*116*		*13 - 134*	*04/11/16 08:06*	*04/14/16 03:48*	*10*
DCB Decachlorobiphenyl	*120*		*10 - 155*	*04/11/16 08:06*	*04/14/16 03:48*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-029
Date Collected: 04/07/16 11:35
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-12
Matrix: Solid
Percent Solids: 46.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20
Aroclor-1221	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20
Aroclor-1232	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20
Aroclor-1242	**7400**		1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20
Aroclor-1248	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20
Aroclor-1254	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20
Aroclor-1260	1400	U	1400		ug/Kg	☼	04/11/16 08:06	04/14/16 04:07	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*163*	*X*	*13 - 134*	*04/11/16 08:06*	*04/14/16 04:07*	*20*
DCB Decachlorobiphenyl	*34*		*10 - 155*	*04/11/16 08:06*	*04/14/16 04:07*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-030
Date Collected: 04/07/16 13:35
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-13
Matrix: Solid
Percent Solids: 55.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	300	U F1	300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5
Aroclor-1221	300	U	300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5
Aroclor-1232	300	U	300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5
Aroclor-1242	**730**		300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5
Aroclor-1248	300	U	300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5
Aroclor-1254	300	U	300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5
Aroclor-1260	300	U	300		ug/Kg	☼	04/11/16 08:06	04/15/16 12:46	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*55*		*13 - 134*	*04/11/16 08:06*	*04/15/16 12:46*	*5*
DCB Decachlorobiphenyl	*43*		*10 - 155*	*04/11/16 08:06*	*04/15/16 12:46*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-031
Date Collected: 04/07/16 13:40
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	690	U	690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10
Aroclor-1221	690	U	690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10
Aroclor-1232	690	U	690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10
Aroclor-1242	**2300**		690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10
Aroclor-1248	690	U	690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10
Aroclor-1254	690	U	690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10
Aroclor-1260	690	U	690		ug/Kg	☼	04/12/16 07:22	04/15/16 11:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*13 - 134*	*04/12/16 07:22*	*04/15/16 11:24*	*10*
DCB Decachlorobiphenyl	*50*		*10 - 155*	*04/12/16 07:22*	*04/15/16 11:24*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-032
Date Collected: 04/07/16 13:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-15
Matrix: Solid
Percent Solids: 44.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7500	U	7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100
Aroclor-1221	7500	U	7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100
Aroclor-1232	7500	U	7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100
Aroclor-1242	**58000**		7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100
Aroclor-1248	7500	U	7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100
Aroclor-1254	7500	U	7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100
Aroclor-1260	7500	U	7500		ug/Kg	☼	04/12/16 07:22	04/15/16 11:42	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*264*	*X*	*13 - 134*	*04/12/16 07:22*	*04/15/16 11:42*	*100*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/12/16 07:22*	*04/15/16 11:42*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-033
Date Collected: 04/07/16 13:55
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-16
Matrix: Solid
Percent Solids: 52.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	32000	U	32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500
Aroclor-1221	32000	U	32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500
Aroclor-1232	32000	U	32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500
Aroclor-1242	**89000**		32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500
Aroclor-1248	32000	U	32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500
Aroclor-1254	32000	U	32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500
Aroclor-1260	32000	U	32000	ug/Kg	☼	04/19/16 10:52	04/21/16 21:58	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*2832*	*X*	*13 - 134*	*04/19/16 10:52*	*04/21/16 21:58*	*500*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/19/16 10:52*	*04/21/16 21:58*	*500*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-034
Date Collected: 04/07/16 15:10
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-17
Matrix: Solid
Percent Solids: 50.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	320	U	320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5
Aroclor-1221	320	U	320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5
Aroclor-1232	320	U	320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5
Aroclor-1242	**1200**		320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5
Aroclor-1248	320	U	320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5
Aroclor-1254	**410**		320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5
Aroclor-1260	320	U	320	ug/Kg	☼	04/12/16 07:22	04/15/16 12:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*13 - 134*	*04/12/16 07:22*	*04/15/16 12:52*	*5*
DCB Decachlorobiphenyl	*64*		*10 - 155*	*04/12/16 07:22*	*04/15/16 12:52*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-035
Date Collected: 04/07/16 15:15
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-18
Matrix: Solid
Percent Solids: 44.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	15000	U	15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200
Aroclor-1221	15000	U	15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200
Aroclor-1232	15000	U	15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200
Aroclor-1242	**84000**		15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200
Aroclor-1248	15000	U	15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200
Aroclor-1254	15000	U	15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200
Aroclor-1260	15000	U	15000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:10	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*503*	*X*	*13 - 134*	*04/12/16 07:22*	*04/15/16 13:10*	*200*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/12/16 07:22*	*04/15/16 13:10*	*200*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-036
Date Collected: 04/07/16 15:20
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-19
Matrix: Solid
Percent Solids: 56.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3000	U	3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50
Aroclor-1221	3000	U	3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50
Aroclor-1232	3000	U	3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50
Aroclor-1242	**20000**		3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50
Aroclor-1248	3000	U	3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50
Aroclor-1254	3000	U	3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50
Aroclor-1260	3000	U	3000	ug/Kg	☼	04/12/16 07:22	04/15/16 13:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*193*	*X*	*13 - 134*	*04/12/16 07:22*	*04/15/16 13:27*	*50*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/12/16 07:22*	*04/15/16 13:27*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040716-JN-038
Date Collected: 04/07/16 15:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-21
Matrix: Solid
Percent Solids: 47.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	350	U	350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5
Aroclor-1221	350	U	350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5
Aroclor-1232	350	U	350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5
Aroclor-1242	**2200**		350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5
Aroclor-1248	350	U	350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5
Aroclor-1254	**460**		350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5
Aroclor-1260	350	U	350	ug/Kg	☼	04/12/16 07:22	04/15/16 13:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*31*		*13 - 134*	*04/12/16 07:22*	*04/15/16 13:45*	*5*
DCB Decachlorobiphenyl	*0*	*X*	*10 - 155*	*04/12/16 07:22*	*04/15/16 13:45*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-018
Date Collected: 04/07/16 09:20
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-1
Matrix: Solid
Percent Solids: 47.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	47.9		0.1		%			04/11/16 11:08	1
Percent Moisture	52.1		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-019
Date Collected: 04/07/16 09:25
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-2
Matrix: Solid
Percent Solids: 49.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**49.1**		0.1		%			04/11/16 11:08	1
Percent Moisture	**50.9**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-020
Date Collected: 04/07/16 09:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-3
Matrix: Solid
Percent Solids: 76.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**76.4**		0.1		%			04/11/16 11:08	1
Percent Moisture	**23.6**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-021
Date Collected: 04/07/16 09:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-4
Matrix: Solid
Percent Solids: 54.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**54.0**		0.1		%			04/11/16 11:08	1
Percent Moisture	**46.0**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-022
Date Collected: 04/07/16 09:50
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-5
Matrix: Solid
Percent Solids: 42.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**42.9**		0.1		%			04/11/16 11:08	1
Percent Moisture	**57.1**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-023
Date Collected: 04/07/16 09:55
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-6
Matrix: Solid
Percent Solids: 43.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**43.1**		0.1		%			04/11/16 11:08	1
Percent Moisture	**56.9**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-024
Date Collected: 04/07/16 10:00
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-7
Matrix: Solid
Percent Solids: 43.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**43.2**		0.1		%			04/11/16 11:08	1
Percent Moisture	**56.8**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-025
Date Collected: 04/07/16 10:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-8
Matrix: Solid
Percent Solids: 52.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**52.5**		0.1		%			04/11/16 11:08	1
Percent Moisture	**47.5**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-026
Date Collected: 04/07/16 10:40
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-9
Matrix: Solid
Percent Solids: 53.6

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**53.6**		0.1		%			04/11/16 11:08	1
Percent Moisture	**46.4**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-027
Date Collected: 04/07/16 10:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-10
Matrix: Solid
Percent Solids: 42.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**42.1**		0.1		%			04/11/16 11:08	1
Percent Moisture	**57.9**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-028
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-11
Matrix: Solid
Percent Solids: 46.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**46.9**		0.1		%			04/11/16 11:08	1
Percent Moisture	**53.1**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-029
Date Collected: 04/07/16 11:35
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-12
Matrix: Solid
Percent Solids: 46.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**46.3**		0.1		%			04/11/16 11:08	1
Percent Moisture	**53.7**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-030
Date Collected: 04/07/16 13:35
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-13
Matrix: Solid
Percent Solids: 55.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**55.5**		0.1		%			04/11/16 11:08	1
Percent Moisture	**44.5**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-031
Date Collected: 04/07/16 13:40
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.5**		0.1		%			04/11/16 11:08	1
Percent Moisture	**52.5**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-032
Date Collected: 04/07/16 13:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-15
Matrix: Solid
Percent Solids: 44.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**44.3**		0.1		%			04/11/16 11:08	1
Percent Moisture	**55.7**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-033
Date Collected: 04/07/16 13:55
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-16
Matrix: Solid
Percent Solids: 52.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**52.2**		0.1		%			04/11/16 11:08	1
Percent Moisture	**47.8**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-034
Date Collected: 04/07/16 15:10
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-17
Matrix: Solid
Percent Solids: 50.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**50.2**		0.1		%			04/11/16 11:08	1
Percent Moisture	**49.8**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-035
Date Collected: 04/07/16 15:15
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-18
Matrix: Solid
Percent Solids: 44.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**44.1**		0.1		%			04/11/16 11:08	1
Percent Moisture	**55.9**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-036
Date Collected: 04/07/16 15:20
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-19
Matrix: Solid
Percent Solids: 56.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**56.5**		0.1		%			04/11/16 11:08	1
Percent Moisture	**43.5**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

General Chemistry

Client Sample ID: SE-040716-JN-038
Date Collected: 04/07/16 15:45
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-21
Matrix: Solid
Percent Solids: 47.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.3**		0.1		%			04/11/16 11:08	1
Percent Moisture	**52.7**		0.1		%			04/11/16 11:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: D422 - Grain Size

Client Sample ID: SE-040716-JN-037
Date Collected: 04/07/16 15:30
Date Received: 04/08/16 09:40

Lab Sample ID: 240-63235-20
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gravel	2.0				%			04/11/16 16:48	1
Sieve Size 3 inch - Percent Finer	100.0				% Passing			04/11/16 16:48	1
Sand	22.0				%			04/11/16 16:48	1
Sieve Size 2 inch - Percent Finer	100.0				% Passing			04/11/16 16:48	1
Coarse Sand	1.7				%			04/11/16 16:48	1
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			04/11/16 16:48	1
Medium Sand	5.2				%			04/11/16 16:48	1
Sieve Size 1 inch - Percent Finer	100.0				% Passing			04/11/16 16:48	1
Fine Sand	15.1				%			04/11/16 16:48	1
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing			04/11/16 16:48	1
Sieve Size 0.375 inch - Percent Finer	98.6				% Passing			04/11/16 16:48	1
Silt	43.5				%			04/11/16 16:48	1
Clay	32.5				%			04/11/16 16:48	1
Sieve Size #4 - Percent Finer	98.0				% Passing			04/11/16 16:48	1
Sieve Size #10 - Percent Finer	96.3				% Passing			04/11/16 16:48	1
Sieve Size #20 - Percent Finer	94.2				% Passing			04/11/16 16:48	1
Sieve Size #40 - Percent Finer	91.1				% Passing			04/11/16 16:48	1
Sieve Size #60 - Percent Finer	87.2				% Passing			04/11/16 16:48	1
Sieve Size #80 - Percent Finer	84.3				% Passing			04/11/16 16:48	1
Sieve Size #100 - Percent Finer	82.2				% Passing			04/11/16 16:48	1
Sieve Size #200 - Percent Finer	76.0				% Passing			04/11/16 16:48	1
Hydrometer Reading 1 - Percent Finer	52.9				% Passing			04/11/16 16:48	1
Hydrometer Reading 2 - Percent Finer	49.6				% Passing			04/11/16 16:48	1
Hydrometer Reading 3 - Percent Finer	41.5				% Passing			04/11/16 16:48	1
Hydrometer Reading 4 - Percent Finer	36.6				% Passing			04/11/16 16:48	1
Hydrometer Reading 5 - Percent Finer	32.5				% Passing			04/11/16 16:48	1
Hydrometer Reading 6 - Percent Finer	26.3				% Passing			04/11/16 16:48	1
Hydrometer Reading 7 - Percent Finer	20.6				% Passing			04/11/16 16:48	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

GC Semi VOA

Prep Batch: 225374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-1	SE-040716-JN-018	Total/NA	Solid	3540C	
240-63235-2	SE-040716-JN-019	Total/NA	Solid	3540C	
240-63235-3	SE-040716-JN-020	Total/NA	Solid	3540C	
240-63235-4	SE-040716-JN-021	Total/NA	Solid	3540C	
240-63235-5	SE-040716-JN-022	Total/NA	Solid	3540C	
240-63235-6	SE-040716-JN-023	Total/NA	Solid	3540C	
240-63235-7	SE-040716-JN-024	Total/NA	Solid	3540C	
240-63235-8	SE-040716-JN-025	Total/NA	Solid	3540C	
240-63235-9	SE-040716-JN-026	Total/NA	Solid	3540C	
240-63235-10	SE-040716-JN-027	Total/NA	Solid	3540C	
240-63235-11	SE-040716-JN-028	Total/NA	Solid	3540C	
240-63235-12	SE-040716-JN-029	Total/NA	Solid	3540C	
240-63235-13	SE-040716-JN-030	Total/NA	Solid	3540C	
240-63235-13 MS	SE-040716-JN-030	Total/NA	Solid	3540C	
240-63235-13 MSD	SE-040716-JN-030	Total/NA	Solid	3540C	
LCS 240-225374/24-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225374/23-A	Method Blank	Total/NA	Solid	3540C	

Prep Batch: 225535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-14	SE-040716-JN-031	Total/NA	Solid	3540C	
240-63235-15	SE-040716-JN-032	Total/NA	Solid	3540C	
240-63235-17	SE-040716-JN-034	Total/NA	Solid	3540C	
240-63235-18	SE-040716-JN-035	Total/NA	Solid	3540C	
240-63235-19	SE-040716-JN-036	Total/NA	Solid	3540C	
240-63235-21	SE-040716-JN-038	Total/NA	Solid	3540C	
LCS 240-225535/24-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225535/23-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 225851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-1	SE-040716-JN-018	Total/NA	Solid	8082	225374
240-63235-2	SE-040716-JN-019	Total/NA	Solid	8082	225374
240-63235-3	SE-040716-JN-020	Total/NA	Solid	8082	225374
240-63235-5	SE-040716-JN-022	Total/NA	Solid	8082	225374
240-63235-6	SE-040716-JN-023	Total/NA	Solid	8082	225374
240-63235-7	SE-040716-JN-024	Total/NA	Solid	8082	225374
240-63235-9	SE-040716-JN-026	Total/NA	Solid	8082	225374
240-63235-10	SE-040716-JN-027	Total/NA	Solid	8082	225374
240-63235-11	SE-040716-JN-028	Total/NA	Solid	8082	225374
240-63235-12	SE-040716-JN-029	Total/NA	Solid	8082	225374
LCS 240-225374/24-A	Lab Control Sample	Total/NA	Solid	8082	225374
MB 240-225374/23-A	Method Blank	Total/NA	Solid	8082	225374

Analysis Batch: 226051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-14	SE-040716-JN-031	Total/NA	Solid	8082	225535
240-63235-15	SE-040716-JN-032	Total/NA	Solid	8082	225535
240-63235-17	SE-040716-JN-034	Total/NA	Solid	8082	225535
240-63235-18	SE-040716-JN-035	Total/NA	Solid	8082	225535
240-63235-19	SE-040716-JN-036	Total/NA	Solid	8082	225535

GC Semi VOA (Continued)

Analysis Batch: 226051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-21	SE-040716-JN-038	Total/NA	Solid	8082	225535
LCS 240-225535/24-A	Lab Control Sample	Total/NA	Solid	8082	225535
MB 240-225535/23-A	Method Blank	Total/NA	Solid	8082	225535

Analysis Batch: 226063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-4	SE-040716-JN-021	Total/NA	Solid	8082	225374
240-63235-8	SE-040716-JN-025	Total/NA	Solid	8082	225374
240-63235-13	SE-040716-JN-030	Total/NA	Solid	8082	225374
240-63235-13 MS	SE-040716-JN-030	Total/NA	Solid	8082	225374
240-63235-13 MSD	SE-040716-JN-030	Total/NA	Solid	8082	225374

Prep Batch: 226507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-16	SE-040716-JN-033	Total/NA	Solid	3540C	
240-63235-16 MS	SE-040716-JN-033	Total/NA	Solid	3540C	
240-63235-16 MSD	SE-040716-JN-033	Total/NA	Solid	3540C	
LCS 240-226507/12-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-226507/11-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 227044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-16	SE-040716-JN-033	Total/NA	Solid	8082	226507
240-63235-16 MS	SE-040716-JN-033	Total/NA	Solid	8082	226507
240-63235-16 MSD	SE-040716-JN-033	Total/NA	Solid	8082	226507
LCS 240-226507/12-A	Lab Control Sample	Total/NA	Solid	8082	226507
MB 240-226507/11-A	Method Blank	Total/NA	Solid	8082	226507

General Chemistry

Analysis Batch: 225417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-1	SE-040716-JN-018	Total/NA	Solid	Moisture	
240-63235-2	SE-040716-JN-019	Total/NA	Solid	Moisture	
240-63235-2 DU	SE-040716-JN-019	Total/NA	Solid	Moisture	
240-63235-3	SE-040716-JN-020	Total/NA	Solid	Moisture	
240-63235-4	SE-040716-JN-021	Total/NA	Solid	Moisture	
240-63235-5	SE-040716-JN-022	Total/NA	Solid	Moisture	
240-63235-6	SE-040716-JN-023	Total/NA	Solid	Moisture	
240-63235-7	SE-040716-JN-024	Total/NA	Solid	Moisture	
240-63235-8	SE-040716-JN-025	Total/NA	Solid	Moisture	
240-63235-9	SE-040716-JN-026	Total/NA	Solid	Moisture	
240-63235-10	SE-040716-JN-027	Total/NA	Solid	Moisture	
240-63235-11	SE-040716-JN-028	Total/NA	Solid	Moisture	
240-63235-11 DU	SE-040716-JN-028	Total/NA	Solid	Moisture	
240-63235-12	SE-040716-JN-029	Total/NA	Solid	Moisture	
240-63235-13	SE-040716-JN-030	Total/NA	Solid	Moisture	
240-63235-14	SE-040716-JN-031	Total/NA	Solid	Moisture	
240-63235-15	SE-040716-JN-032	Total/NA	Solid	Moisture	
240-63235-16	SE-040716-JN-033	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 225417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-16 DU	SE-040716-JN-033	Total/NA	Solid	Moisture	
240-63235-17	SE-040716-JN-034	Total/NA	Solid	Moisture	
240-63235-18	SE-040716-JN-035	Total/NA	Solid	Moisture	
240-63235-19	SE-040716-JN-036	Total/NA	Solid	Moisture	
240-63235-21	SE-040716-JN-038	Total/NA	Solid	Moisture	

Geotechnical

Analysis Batch: 103344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63235-20	SE-040716-JN-037	Total/NA	Solid	D422	

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-225374/23-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225851 — **Prep Batch: 225374**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1221	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1232	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1242	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1248	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1254	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1
Aroclor-1260	33	U	33	ug/Kg		04/11/16 08:06	04/13/16 20:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*13 - 134*	*04/11/16 08:06*	*04/13/16 20:08*	*1*
DCB Decachlorobiphenyl	*90*		*10 - 155*	*04/11/16 08:06*	*04/13/16 20:08*	*1*

Lab Sample ID: LCS 240-225374/24-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225851 — **Prep Batch: 225374**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	333	236		ug/Kg		71	51 - 120
Aroclor-1260	333	278		ug/Kg		84	48 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*69*		*13 - 134*
DCB Decachlorobiphenyl	*94*		*10 - 155*

Lab Sample ID: 240-63235-13 MS — **Client Sample ID: SE-040716-JN-030**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226063 — **Prep Batch: 225374**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	300	U F1	605	1020	F1	ug/Kg	☼	169	17 - 141
Aroclor-1260	300	U	605	341		ug/Kg	☼	56	19 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*13 - 134*
DCB Decachlorobiphenyl	*55*		*10 - 155*

Lab Sample ID: 240-63235-13 MSD — **Client Sample ID: SE-040716-JN-030**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226063 — **Prep Batch: 225374**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor-1016	300	U F1	595	1040	F1	ug/Kg	☼	174	17 - 141	1	56
Aroclor-1260	300	U	595	290	U	ug/Kg	☼	47	19 - 137	20	55

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*56*		*13 - 134*
DCB Decachlorobiphenyl	*45*		*10 - 155*

QC Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Lab Sample ID: MB 240-225535/23-A
Matrix: Solid
Analysis Batch: 226051

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225535

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1
Aroclor-1221	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1
Aroclor-1232	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1
Aroclor-1242	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1
Aroclor-1248	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1
Aroclor-1254	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1
Aroclor-1260	33	U	33	ug/Kg		04/12/16 07:22	04/15/16 16:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*13 - 134*	*04/12/16 07:22*	*04/15/16 16:37*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 155*	*04/12/16 07:22*	*04/15/16 16:37*	*1*

Lab Sample ID: LCS 240-225535/24-A
Matrix: Solid
Analysis Batch: 226051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	333	236		ug/Kg		71	51 - 120
Aroclor-1260	333	267		ug/Kg		80	48 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*57*		*13 - 134*
DCB Decachlorobiphenyl	*74*		*10 - 155*

Lab Sample ID: MB 240-226507/11-A
Matrix: Solid
Analysis Batch: 227044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 226507

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1
Aroclor-1221	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1
Aroclor-1232	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1
Aroclor-1242	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1
Aroclor-1248	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1
Aroclor-1254	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1
Aroclor-1260	33	U	33	ug/Kg		04/19/16 09:59	04/21/16 22:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*44*		*13 - 134*	*04/19/16 09:59*	*04/21/16 22:49*	*1*
DCB Decachlorobiphenyl	*74*		*10 - 155*	*04/19/16 09:59*	*04/21/16 22:49*	*1*

Lab Sample ID: LCS 240-226507/12-A
Matrix: Solid
Analysis Batch: 227044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 226507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	333	178		ug/Kg		53	51 - 120
Aroclor-1260	333	226		ug/Kg		68	48 - 120

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 240-226507/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 227044 — **Prep Batch: 226507**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	55		13 - 134
DCB Decachlorobiphenyl	79		10 - 155

Lab Sample ID: 240-63235-16 MS — **Client Sample ID: SE-040716-JN-033**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 227044 — **Prep Batch: 226507**

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	0	X	13 - 134
DCB Decachlorobiphenyl	0	X	10 - 155

Lab Sample ID: 240-63235-16 MSD — **Client Sample ID: SE-040716-JN-033**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 227044 — **Prep Batch: 226507**

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	0	X	13 - 134
DCB Decachlorobiphenyl	0	X	10 - 155

Method: Moisture - Percent Moisture

Lab Sample ID: 240-63235-2 DU — **Client Sample ID: SE-040716-JN-019**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225417

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	49.1			50.1		%				2	20
Percent Moisture	50.9			49.9		%				2	20

Lab Sample ID: 240-63235-11 DU — **Client Sample ID: SE-040716-JN-028**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225417

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	46.9			50.7		%				8	20
Percent Moisture	53.1			49.3		%				7	20

Lab Sample ID: 240-63235-16 DU — **Client Sample ID: SE-040716-JN-033**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225417

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	52.2			50.9		%				2	20
Percent Moisture	47.8			49.1		%				3	20

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(13-134)	(10-155)
240-63235-1	SE-040716-JN-018	129	76
240-63235-2	SE-040716-JN-019	78	21
240-63235-3	SE-040716-JN-020	14673 X	523 X
240-63235-4	SE-040716-JN-021	24	23
240-63235-5	SE-040716-JN-022	9623 X	1153 X
240-63235-6	SE-040716-JN-023	267 X	190 X
240-63235-7	SE-040716-JN-024	23086 X	2486 X
240-63235-8	SE-040716-JN-025	948 X	160 X
240-63235-9	SE-040716-JN-026	84	52
240-63235-10	SE-040716-JN-027	390 X	216 X
240-63235-11	SE-040716-JN-028	116	120
240-63235-12	SE-040716-JN-029	163 X	34
240-63235-13	SE-040716-JN-030	55	43
240-63235-13 MS	SE-040716-JN-030	74	55
240-63235-13 MSD	SE-040716-JN-030	56	45
240-63235-16	SE-040716-JN-033	2832 X	0 X
240-63235-16 MS	SE-040716-JN-033	0 X	0 X
240-63235-16 MSD	SE-040716-JN-033	0 X	0 X
LCS 240-225374/24-A	Lab Control Sample	69	94
LCS 240-226507/12-A	Lab Control Sample	55	79
MB 240-225374/23-A	Method Blank	68	90
MB 240-226507/11-A	Method Blank	44	74

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(13-134)	(10-155)
240-63235-14	SE-040716-JN-031	92	50
240-63235-15	SE-040716-JN-032	264 X	0 X
240-63235-17	SE-040716-JN-034	72	64
240-63235-18	SE-040716-JN-035	503 X	0 X
240-63235-19	SE-040716-JN-036	193 X	0 X
240-63235-21	SE-040716-JN-038	31	0 X
LCS 240-225535/24-A	Lab Control Sample	57	74
MB 240-225535/23-A	Method Blank	65	76

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-018 — Lab Sample ID: 240-63235-1

Date Collected: 04/07/16 09:20 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-018 — Lab Sample ID: 240-63235-1

Date Collected: 04/07/16 09:20 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 47.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		20	225851	04/13/16 22:54	HMB	TAL CAN

Client Sample ID: SE-040716-JN-019 — Lab Sample ID: 240-63235-2

Date Collected: 04/07/16 09:25 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-019 — Lab Sample ID: 240-63235-2

Date Collected: 04/07/16 09:25 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 49.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		10	225851	04/13/16 23:12	HMB	TAL CAN

Client Sample ID: SE-040716-JN-020 — Lab Sample ID: 240-63235-3

Date Collected: 04/07/16 09:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-020 — Lab Sample ID: 240-63235-3

Date Collected: 04/07/16 09:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 76.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		1000	225851	04/13/16 23:49	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-021 — Lab Sample ID: 240-63235-4

Date Collected: 04/07/16 09:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-021 — Lab Sample ID: 240-63235-4

Date Collected: 04/07/16 09:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 54.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		1	226063	04/15/16 12:09	HMB	TAL CAN

Client Sample ID: SE-040716-JN-022 — Lab Sample ID: 240-63235-5

Date Collected: 04/07/16 09:50 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-022 — Lab Sample ID: 240-63235-5

Date Collected: 04/07/16 09:50 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 42.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		1000	225851	04/14/16 00:26	HMB	TAL CAN

Client Sample ID: SE-040716-JN-023 — Lab Sample ID: 240-63235-6

Date Collected: 04/07/16 09:55 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-023 — Lab Sample ID: 240-63235-6

Date Collected: 04/07/16 09:55 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 43.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		50	225851	04/14/16 00:44	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-024 — Lab Sample ID: 240-63235-7

Date Collected: 04/07/16 10:00 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-024 — Lab Sample ID: 240-63235-7

Date Collected: 04/07/16 10:00 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 43.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		1000	225851	04/14/16 02:16	HMB	TAL CAN

Client Sample ID: SE-040716-JN-025 — Lab Sample ID: 240-63235-8

Date Collected: 04/07/16 10:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-025 — Lab Sample ID: 240-63235-8

Date Collected: 04/07/16 10:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 52.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		50	226063	04/15/16 12:27	HMB	TAL CAN

Client Sample ID: SE-040716-JN-026 — Lab Sample ID: 240-63235-9

Date Collected: 04/07/16 10:40 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-026 — Lab Sample ID: 240-63235-9

Date Collected: 04/07/16 10:40 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 53.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		10	225851	04/14/16 02:53	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-027 — Lab Sample ID: 240-63235-10

Date Collected: 04/07/16 10:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-027 — Lab Sample ID: 240-63235-10

Date Collected: 04/07/16 10:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 42.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		100	225851	04/14/16 03:11	HMB	TAL CAN

Client Sample ID: SE-040716-JN-028 — Lab Sample ID: 240-63235-11

Date Collected: 04/07/16 11:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-028 — Lab Sample ID: 240-63235-11

Date Collected: 04/07/16 11:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 46.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		10	225851	04/14/16 03:48	HMB	TAL CAN

Client Sample ID: SE-040716-JN-029 — Lab Sample ID: 240-63235-12

Date Collected: 04/07/16 11:35 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-029 — Lab Sample ID: 240-63235-12

Date Collected: 04/07/16 11:35 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 46.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		20	225851	04/14/16 04:07	HMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-030 — Lab Sample ID: 240-63235-13

Date Collected: 04/07/16 13:35 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-030 — Lab Sample ID: 240-63235-13

Date Collected: 04/07/16 13:35 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 55.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225374	04/11/16 08:06	SDE	TAL CAN
Total/NA	Analysis	8082		5	226063	04/15/16 12:46	HMB	TAL CAN

Client Sample ID: SE-040716-JN-031 — Lab Sample ID: 240-63235-14

Date Collected: 04/07/16 13:40 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-031 — Lab Sample ID: 240-63235-14

Date Collected: 04/07/16 13:40 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 47.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225535	04/12/16 07:22	SDE	TAL CAN
Total/NA	Analysis	8082		10	226051	04/15/16 11:24	KMG	TAL CAN

Client Sample ID: SE-040716-JN-032 — Lab Sample ID: 240-63235-15

Date Collected: 04/07/16 13:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-032 — Lab Sample ID: 240-63235-15

Date Collected: 04/07/16 13:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 44.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225535	04/12/16 07:22	SDE	TAL CAN
Total/NA	Analysis	8082		100	226051	04/15/16 11:42	KMG	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-033 — Lab Sample ID: 240-63235-16

Date Collected: 04/07/16 13:55 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-033 — Lab Sample ID: 240-63235-16

Date Collected: 04/07/16 13:55 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 52.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			226507	04/19/16 10:52	YDN	TAL CAN
Total/NA	Analysis	8082		500	227044	04/21/16 21:58	LSH	TAL CAN

Client Sample ID: SE-040716-JN-034 — Lab Sample ID: 240-63235-17

Date Collected: 04/07/16 15:10 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-034 — Lab Sample ID: 240-63235-17

Date Collected: 04/07/16 15:10 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 50.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225535	04/12/16 07:22	SDE	TAL CAN
Total/NA	Analysis	8082		5	226051	04/15/16 12:52	KMG	TAL CAN

Client Sample ID: SE-040716-JN-035 — Lab Sample ID: 240-63235-18

Date Collected: 04/07/16 15:15 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-035 — Lab Sample ID: 240-63235-18

Date Collected: 04/07/16 15:15 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 44.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225535	04/12/16 07:22	SDE	TAL CAN
Total/NA	Analysis	8082		200	226051	04/15/16 13:10	KMG	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Client Sample ID: SE-040716-JN-036 — Lab Sample ID: 240-63235-19

Date Collected: 04/07/16 15:20 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-036 — Lab Sample ID: 240-63235-19

Date Collected: 04/07/16 15:20 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 56.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225535	04/12/16 07:22	SDE	TAL CAN
Total/NA	Analysis	8082		50	226051	04/15/16 13:27	KMG	TAL CAN

Client Sample ID: SE-040716-JN-037 — Lab Sample ID: 240-63235-20

Date Collected: 04/07/16 15:30 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	103344	04/11/16 16:48	VTP	TAL BUR

Client Sample ID: SE-040716-JN-038 — Lab Sample ID: 240-63235-21

Date Collected: 04/07/16 15:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:08	JMB	TAL CAN

Client Sample ID: SE-040716-JN-038 — Lab Sample ID: 240-63235-21

Date Collected: 04/07/16 15:45 — **Matrix: Solid**
Date Received: 04/08/16 09:40 — **Percent Solids: 47.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225535	04/12/16 07:22	SDE	TAL CAN
Total/NA	Analysis	8082		5	226051	04/15/16 13:45	KMG	TAL CAN

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63235-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16 *
Illinois	NELAP	5	200004	07-31-16 *
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16 *
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-17
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-17
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-17
Florida	NELAP	4	E87467	06-30-16
L-A-B	DoD ELAP		L2336	02-26-17
Maine	State Program	1	VT00008	04-17-17
Minnesota	NELAP	5	050-999-436	12-31-16
New Hampshire	NELAP	1	2006	12-18-16
New Jersey	NELAP	2	VT972	06-30-16
New York	NELAP	2	10391	04-01-17 *
Pennsylvania	NELAP	3	68-00489	04-30-16 *
Rhode Island	State Program	1	LAO00298	12-30-16
US Fish & Wildlife	Federal		LE-058448-0	10-31-16
USDA	Federal		P330-11-00093	10-28-16
Vermont	State Program	1	VT-4000	12-31-16
Virginia	NELAP	3	460209	12-14-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-63235 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

GM BEALM ENCORE

2.0/C1.5

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 1 OF 2

☐ eCOC in Use

ID: # C#20160407_155638

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Preservative

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	/PCBs, Total	Remarks/Lab ID
1	SE-040716-JN-018	SE	04/07/16	9:20	1	X	
2	SE-040716-JN-019	SE	04/07/16	9:25	1	X	
3	SE-040716-JN-020	SE	04/07/16	9:30	1	X	
4	SE-040716-JN-021	SE	04/07/16	9:45	1	X	
5	SE-040716-JN-022	SE	04/07/16	9:50	1	X	
6	SE-040716-JN-023	SE	04/07/16	9:55	1	X	
7	SE-040716-JN-024	SE	04/07/16	10:00	1	X	
8	SE-040716-JN-025	SE	04/07/16	10:30	1	X	
9	SE-040716-JN-026	SE	04/07/16	10:40	1	X	
10	SE-040716-JN-027	SE	04/07/16	10:45	1	X	
11	SE-040716-JN-028	SE	04/07/16	11:30	1	X	
12	SE-040716-JN-029	SE	04/07/16	11:35	1	X	
13	SE-040716-JN-030	SE	04/07/16	13:35	1	X	
14	SE-040716-JN-031	SE	04/07/16	13:40	1	X	
15	SE-040716-JN-032	SE	04/07/16	13:45	1	X	
16	SE-040716-JN-033	SE	04/07/16	13:55	2	X	MS/MSD
17	SE-040716-JN-034	SE	04/07/16	15:10	1	X	
18	SE-040716-JN-035	SE	04/07/16	15:15	1	X	
	TOTAL NUMBER OF CONTAINERS				19		

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	1	Jeff Nichols / GHD	04/07/16	17:00	[signature]	4-8-16	9:40
AIRBILL NO: 8682 8736 4781							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Fully Executed Copy

Sampler Name: Jeffrey M. Nichols

Sampler Signature: [signature] Date: 04/07/16

REV. 0 (9/04)

4/22/2016

GM REALM ENCORE

2.0 / C1.5

CHAIN-OF-CUSTODY / Analytical Request Document

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

☐ eCOC in Use

ID: # C#20160407_160440

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	Preservative	/PCBs, Total	/Grain Size	Remarks/Lab ID
1	SE-040716-JN-036	SE	04/07/16	15:20	1		X		
2	SE-040716-JN-037	SE	04/07/16	15:30	1			X	
3	SE-040716-JN-038	SE	04/07/16	15:45	1		X		
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
	TOTAL NUMBER OF CONTAINERS				3				

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	1	Jeff Nichols / GHD	04/07/16	17:00	[signature]	4-8-16	940
AIRBILL NO: 8682 8736 4781							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Fully Executed Copy

Sampler Name: Jeffrey M Nichols

Sampler Signature: [signature] Date: 04/07/16

REV. 0 (9/04)

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 43235
Canton Facility

Client GHD Site Name _____ Cooler unpacked by: _____

Cooler Received on 4-8-16 Opened on 4-8-16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box ~~Other~~ _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 2.0 °C Corrected Cooler Temp. 1.5 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. ~~Sufficient quantity received to perform indicated analyses?~~ Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
    12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
    13. Were VOAs on the COC? Yes No
    14. Were air bubbles >6 mm in any VOA vials? Yes No NA
    15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
    16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-63235-1

Login Number: 63235
List Number: 2
Creator: Lavigne III, Scott M

List Source: TestAmerica Burlington
List Creation: 04/09/16 12:24 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-63312-1
Client Project/Site: 13968, GM Bedford, SSOW# E117018-002

For:
GHD Services Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Rawa Fleisher

Denise D Heckler

Authorized for release by:
4/21/2016 2:46:29 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 240-63312-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-63312-1

Comments
TCLP PCBs were not logged for samples SE-040816-JN-052 (240-63312-14), SE-040816-JN-053 (240-63312-15), SE-040816-JN-054 (240-63312-16). Following confirmation with GHD, this is an error on the COC.

Receipt
The samples were received on 4/9/2016 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9º C.

GC/MS VOA
Method(s) 8260B: The laboratory control sample (LCS) for preparation batch 240-225818 and analytical batch 240-225767 recovered outside control limits for the following analytes: Dichlorodifluoromethane and 1,1,1-Trichloroethane. These analytes were biased high in the LCS and were not detected in the associated samples.

Method(s) 8260B: The method blank for preparation batch 240-225818 and analytical batch 240-225767 contained Methylene Chloride above the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated sample(s) SE-040816-JN-052 (240-63312-14), SE-040816-JN-053 (240-63312-15), SE-040816-JN-054 (240-63312-16), (MB 240-225767/6), (240-63312-B-16-B MS) and (240-63312-B-16-C MSD) was not re-extracted and/or re-analyzed because the concentration of the common lab contaminant in the method blank was less than 5 times the RL.

Method(s) 8260B: Internal standard (ISTD) response for the following samples was outside control limits: SE-040816-JN-052 (240-63312-14) and SE-040816-JN-053 (240-63312-15). The sample(s) was re-extracted and/or re-analyzed with concurring results, and the original set of data has been reported.

Method(s) 8260B: Internal standard (ISTD) response for the following sample was outside control limits: SE-040816-JN-054 (240-63312-16). The sample(s) was re-extracted and/or re-analyzed with concurring results, and the second set of data has been reported.

Method(s) 8260B: Surrogate recovery for the following sample was outside control limits: SE-040816-JN-053 (240-63312-15). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

Method(s) 8260B: Surrogate recovery for the following sample was outside control limits: SE-040816-JN-054 (240-63312-16). Evidence of matrix interference is present.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C: The following sample was diluted due to the nature of the sample matrix: SE-040816-JN-053 (240-63312-15). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SE-040816-JN-052 (240-63312-14). These results have been reported and qualified.

Method(s) 8270C: The following samples were diluted due to the nature of the sample matrix: SE-040816-JN-052 (240-63312-14) and SE-040816-JN-054 (240-63312-16). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SE-040816-JN-039 (240-63312-1), SE-040816-JN-040 (240-63312-2), SE-040816-JN-041 (240-63312-3), SE-040816-JN-042 (240-63312-4), SE-040816-JN-043 (240-63312-5), SE-040816-JN-044 (240-63312-6), SE-040816-JN-045 (240-63312-7),

Job ID: 240-63312-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

SE-040816-JN-046 (240-63312-8), SE-040816-JN-047 (240-63312-9), SE-040816-JN-048 (240-63312-10), SE-040816-JN-049 (240-63312-11), SE-040816-JN-050 (240-63312-12), SE-040816-JN-050 (240-63312-12[MS]), SE-040816-JN-050 (240-63312-12[MSD]), SE-040816-JN-052 (240-63312-14) and SE-040816-JN-053 (240-63312-15).2485537, 2103098, 2283704.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Geotechnical
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.
*	ISTD response or retention time outside acceptable limits
B	Compound was found in the blank and sample.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-63312-1	SE-040816-JN-039	Solid	04/08/16 09:05	04/09/16 09:30
240-63312-2	SE-040816-JN-040	Solid	04/08/16 09:15	04/09/16 09:30
240-63312-3	SE-040816-JN-041	Solid	04/08/16 09:20	04/09/16 09:30
240-63312-4	SE-040816-JN-042	Solid	04/08/16 09:40	04/09/16 09:30
240-63312-5	SE-040816-JN-043	Solid	04/08/16 09:45	04/09/16 09:30
240-63312-6	SE-040816-JN-044	Solid	04/08/16 09:50	04/09/16 09:30
240-63312-7	SE-040816-JN-045	Solid	04/08/16 10:25	04/09/16 09:30
240-63312-8	SE-040816-JN-046	Solid	04/08/16 10:40	04/09/16 09:30
240-63312-9	SE-040816-JN-047	Solid	04/08/16 11:10	04/09/16 09:30
240-63312-10	SE-040816-JN-048	Solid	04/08/16 11:20	04/09/16 09:30
240-63312-11	SE-040816-JN-049	Solid	04/08/16 11:25	04/09/16 09:30
240-63312-12	SE-040816-JN-050	Solid	04/08/16 13:35	04/09/16 09:30
240-63312-13	SE-040816-JN-051	Solid	04/08/16 13:45	04/09/16 09:30
240-63312-14	SE-040816-JN-052	Solid	04/08/16 14:40	04/09/16 09:30
240-63312-15	SE-040816-JN-053	Solid	04/08/16 14:45	04/09/16 09:30
240-63312-16	SE-040816-JN-054	Solid	04/08/16 14:50	04/09/16 09:30

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-039 — Lab Sample ID: 240-63312-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	60000		7100		ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-040 — Lab Sample ID: 240-63312-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	9300		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-041 — Lab Sample ID: 240-63312-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	13000		1500		ug/Kg	20	☼	8082	Total/NA
Aroclor-1254	1600		1500		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-042 — Lab Sample ID: 240-63312-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	16000		3400		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-043 — Lab Sample ID: 240-63312-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	18000		3300		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-044 — Lab Sample ID: 240-63312-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	19000		3300		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-045 — Lab Sample ID: 240-63312-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	8800		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-046 — Lab Sample ID: 240-63312-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	7400		1300		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-047 — Lab Sample ID: 240-63312-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	9800		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-048 — Lab Sample ID: 240-63312-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	8300		1400		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-049 — Lab Sample ID: 240-63312-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-049 (Continued) — Lab Sample ID: 240-63312-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	15000		3200	ug/Kg	50	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-050 — Lab Sample ID: 240-63312-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	24000		7300	ug/Kg	100	☼	8082	Total/NA

Client Sample ID: SE-040816-JN-051 — Lab Sample ID: 240-63312-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Gravel	6.2			%	1		D422	Total/NA
Sieve Size 3 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Sand	18.4			%	1		D422	Total/NA
Sieve Size 2 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Coarse Sand	4.1			%	1		D422	Total/NA
Sieve Size 1.5 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Medium Sand	4.9			%	1		D422	Total/NA
Sieve Size 1 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Fine Sand	9.4			%	1		D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Sieve Size 0.375 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Silt	43.8			%	1		D422	Total/NA
Clay	31.6			%	1		D422	Total/NA
Sieve Size #4 - Percent Finer	93.8			% Passing	1		D422	Total/NA
Sieve Size #10 - Percent Finer	89.7			% Passing	1		D422	Total/NA
Sieve Size #20 - Percent Finer	87.4			% Passing	1		D422	Total/NA
Sieve Size #40 - Percent Finer	84.8			% Passing	1		D422	Total/NA
Sieve Size #60 - Percent Finer	81.8			% Passing	1		D422	Total/NA
Sieve Size #80 - Percent Finer	80.1			% Passing	1		D422	Total/NA
Sieve Size #100 - Percent Finer	79.1			% Passing	1		D422	Total/NA
Sieve Size #200 - Percent Finer	75.4			% Passing	1		D422	Total/NA
Hydrometer Reading 1 - Percent Finer	63.8			% Passing	1		D422	Total/NA
Hydrometer Reading 2 - Percent Finer	58.4			% Passing	1		D422	Total/NA
Hydrometer Reading 3 - Percent Finer	48.8			% Passing	1		D422	Total/NA
Hydrometer Reading 4 - Percent Finer	39.1			% Passing	1		D422	Total/NA
Hydrometer Reading 5 - Percent Finer	31.6			% Passing	1		D422	Total/NA
Hydrometer Reading 6 - Percent Finer	20.6			% Passing	1		D422	Total/NA
Hydrometer Reading 7 - Percent Finer	16.1			% Passing	1		D422	Total/NA

Client Sample ID: SE-040816-JN-052 — Lab Sample ID: 240-63312-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Acetone	83		42	ug/Kg	1	☼	8260B	Total/NA
Methylene Chloride	13	B	11	ug/Kg	1	☼	8260B	Total/NA
Isopropylbenzene	21		11	ug/Kg	1	☼	8260B	Total/NA
Acenaphthene	340		70	ug/Kg	5	☼	8270C	Total/NA
Anthracene	220		70	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]anthracene	930		70	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]pyrene	1100		70	ug/Kg	5	☼	8270C	Total/NA
Benzo[b]fluoranthene	1900		70	ug/Kg	5	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-052 (Continued) — Lab Sample ID: 240-63312-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	920		70	ug/Kg	5	☼	8270C	Total/NA
Benzo[k]fluoranthene	680		70	ug/Kg	5	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	2100		740	ug/Kg	5	☼	8270C	Total/NA
Chrysene	1500		70	ug/Kg	5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	180		70	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	2900		70	ug/Kg	5	☼	8270C	Total/NA
Fluorene	140		70	ug/Kg	5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	720		70	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	1300		70	ug/Kg	5	☼	8270C	Total/NA
Pyrene	2400		70	ug/Kg	5	☼	8270C	Total/NA
Aroclor-1242	76000		34000	ug/Kg	500	☼	8082	Total/NA
Barium	81		39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.7		0.39	mg/Kg	1	☼	6010B	Total/NA
Chromium	30		0.98	mg/Kg	1	☼	6010B	Total/NA
Silver	5.1		0.98	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.8		2.0	mg/Kg	1	☼	6010B	Total/NA
Lead	74	F1	0.59	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SE-040816-JN-053 — Lab Sample ID: 240-63312-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Acetone	96		43	ug/Kg	1	☼	8260B	Total/NA
Methylene Chloride	14	B	11	ug/Kg	1	☼	8260B	Total/NA
Isopropylbenzene	34		11	ug/Kg	1	☼	8260B	Total/NA
Tetrachloroethene	0.070		0.025	mg/L	1		8260B	TCLP
Acenaphthene	540		71	ug/Kg	5	☼	8270C	Total/NA
Anthracene	560		71	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]anthracene	2000		71	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]pyrene	1900		71	ug/Kg	5	☼	8270C	Total/NA
Benzo[b]fluoranthene	3000		71	ug/Kg	5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	1200		71	ug/Kg	5	☼	8270C	Total/NA
Benzo[k]fluoranthene	1300		71	ug/Kg	5	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	2200		750	ug/Kg	5	☼	8270C	Total/NA
Chrysene	2500		71	ug/Kg	5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	270		71	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	5500		71	ug/Kg	5	☼	8270C	Total/NA
Fluorene	280		71	ug/Kg	5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	1100		71	ug/Kg	5	☼	8270C	Total/NA
Naphthalene	86		71	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	2900		71	ug/Kg	5	☼	8270C	Total/NA
Pyrene	4400		71	ug/Kg	5	☼	8270C	Total/NA
Aroclor-1242	57000		7100	ug/Kg	100	☼	8082	Total/NA
Barium	83		39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.6		0.39	mg/Kg	1	☼	6010B	Total/NA
Chromium	30		0.98	mg/Kg	1	☼	6010B	Total/NA
Silver	5.2		0.98	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.8		2.0	mg/Kg	1	☼	6010B	Total/NA
Lead	66		0.59	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.0		0.98	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-054 — Lab Sample ID: 240-63312-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Acetone	110		43	ug/Kg	1	☼	8260B	Total/NA
Methylene Chloride	15	B	11	ug/Kg	1	☼	8260B	Total/NA
Isopropylbenzene	34	F1	11	ug/Kg	1	☼	8260B	Total/NA
Acenaphthene	470		74	ug/Kg	5	☼	8270C	Total/NA
Anthracene	270		74	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]anthracene	1100		74	ug/Kg	5	☼	8270C	Total/NA
Benzo[a]pyrene	1300		74	ug/Kg	5	☼	8270C	Total/NA
Benzo[b]fluoranthene	2300		74	ug/Kg	5	☼	8270C	Total/NA
Benzo[g,h,i]perylene	940		74	ug/Kg	5	☼	8270C	Total/NA
Benzo[k]fluoranthene	830		74	ug/Kg	5	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	2300		780	ug/Kg	5	☼	8270C	Total/NA
Chrysene	1700		74	ug/Kg	5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	210		74	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	3400		74	ug/Kg	5	☼	8270C	Total/NA
Fluorene	160		74	ug/Kg	5	☼	8270C	Total/NA
Indeno[1,2,3-cd]pyrene	820		74	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	1500		74	ug/Kg	5	☼	8270C	Total/NA
Pyrene	2700		74	ug/Kg	5	☼	8270C	Total/NA
Aroclor-1242	68000		7200	ug/Kg	100	☼	8082	Total/NA
Barium	76		39	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.5		0.39	mg/Kg	1	☼	6010B	Total/NA
Chromium	29		0.97	mg/Kg	1	☼	6010B	Total/NA
Silver	4.9		0.97	mg/Kg	1	☼	6010B	Total/NA
Arsenic	8.8		1.9	mg/Kg	1	☼	6010B	Total/NA
Lead	64		0.58	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
7471A	Mercury (CVAA)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
D422	Grain Size	ASTM	TAL BUR

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**83**		42		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Benzene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Dichlorobromomethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Bromoform	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Bromomethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
2-Butanone (MEK)	42	U	42		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Carbon disulfide	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Carbon tetrachloride	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Chlorobenzene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Chloroethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Chloroform	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Chloromethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,1-Dichloroethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,2-Dichloroethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,1-Dichloroethene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,2-Dichloropropane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
cis-1,3-Dichloropropene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
trans-1,3-Dichloropropene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Ethylbenzene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
2-Hexanone	42	U	42		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Methylene Chloride	**13**	**B**	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
4-Methyl-2-pentanone (MIBK)	42	U	42		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Styrene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,1,2,2-Tetrachloroethane	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Tetrachloroethene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Toluene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Trichloroethene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Vinyl chloride	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Xylenes, Total	21	U	21		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,1,1-Trichloroethane	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,1,2-Trichloroethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Cyclohexane	21	U	21		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,2-Dibromo-3-Chloropropane	21	U *	21		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Ethylene Dibromide	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Dichlorodifluoromethane	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
cis-1,2-Dichloroethene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
trans-1,2-Dichloroethene	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Isopropylbenzene	**21**		11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Methyl acetate	21	U	21		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Methyl tert-butyl ether	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,2,4-Trichlorobenzene	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,2-Dichlorobenzene	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,3-Dichlorobenzene	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
1,4-Dichlorobenzene	11	U *	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Trichlorofluoromethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Chlorodibromomethane	11	U	11		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1
Methylcyclohexane	21	U	21		ug/Kg	☼	04/13/16 11:38	04/13/16 12:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		58 - 123	04/13/16 11:38	04/13/16 12:51	1
4-Bromofluorobenzene (Surr)	112	*	52 - 136	04/13/16 11:38	04/13/16 12:51	1
Toluene-d8 (Surr)	100		67 - 125	04/13/16 11:38	04/13/16 12:51	1
Dibromofluoromethane (Surr)	98		37 - 132	04/13/16 11:38	04/13/16 12:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**96**		43	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Benzene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Dichlorobromomethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Bromoform	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Bromomethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
2-Butanone (MEK)	43	U	43	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Carbon disulfide	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Carbon tetrachloride	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Chlorobenzene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Chloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Chloroform	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Chloromethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,1-Dichloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,2-Dichloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,1-Dichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,2-Dichloropropane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
cis-1,3-Dichloropropene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
trans-1,3-Dichloropropene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Ethylbenzene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
2-Hexanone	43	U	43	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Methylene Chloride	**14**	**B**	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
4-Methyl-2-pentanone (MIBK)	43	U	43	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Styrene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,1,2,2-Tetrachloroethane	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Tetrachloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Toluene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Trichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Vinyl chloride	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Xylenes, Total	22	U	22	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,1,1-Trichloroethane	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,1,2-Trichloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Cyclohexane	22	U	22	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,2-Dibromo-3-Chloropropane	22	U *	22	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Ethylene Dibromide	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Dichlorodifluoromethane	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
cis-1,2-Dichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
trans-1,2-Dichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Isopropylbenzene	**34**		11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Methyl acetate	22	U	22	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Methyl tert-butyl ether	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,2,4-Trichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,2-Dichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,3-Dichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
1,4-Dichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Trichlorofluoromethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Chlorodibromomethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1
Methylcyclohexane	22	U	22	ug/Kg	☼	04/13/16 11:38	04/13/16 13:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		58 - 123	04/13/16 11:38	04/13/16 13:12	1
4-Bromofluorobenzene (Surr)	142	* X	52 - 136	04/13/16 11:38	04/13/16 13:12	1
Toluene-d8 (Surr)	107		67 - 125	04/13/16 11:38	04/13/16 13:12	1
Dibromofluoromethane (Surr)	97		37 - 132	04/13/16 11:38	04/13/16 13:12	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**110**		43	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Benzene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Dichlorobromomethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Bromoform	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Bromomethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
2-Butanone (MEK)	43	U	43	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Carbon disulfide	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Carbon tetrachloride	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Chlorobenzene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Chloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Chloroform	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Chloromethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,1-Dichloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,2-Dichloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,1-Dichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,2-Dichloropropane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
cis-1,3-Dichloropropene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
trans-1,3-Dichloropropene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Ethylbenzene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
2-Hexanone	43	U	43	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Methylene Chloride	**15**	**B**	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
4-Methyl-2-pentanone (MIBK)	43	U	43	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Styrene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,1,2,2-Tetrachloroethane	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Tetrachloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Toluene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Trichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Vinyl chloride	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Xylenes, Total	21	U	21	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,1,1-Trichloroethane	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,1,2-Trichloroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Cyclohexane	21	U	21	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,2-Dibromo-3-Chloropropane	21	U *	21	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Ethylene Dibromide	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Dichlorodifluoromethane	11	U F1 *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
cis-1,2-Dichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
trans-1,2-Dichloroethene	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Isopropylbenzene	**34**	**F1**	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Methyl acetate	21	U	21	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Methyl tert-butyl ether	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,2,4-Trichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,2-Dichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,3-Dichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
1,4-Dichlorobenzene	11	U *	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Trichlorofluoromethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Chlorodibromomethane	11	U	11	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1
Methylcyclohexane	21	U	21	ug/Kg	☼	04/13/16 11:38	04/13/16 14:40	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		58 - 123	04/13/16 11:38	04/13/16 14:40	1
4-Bromofluorobenzene (Surr)	142	* X	52 - 136	04/13/16 11:38	04/13/16 14:40	1
Toluene-d8 (Surr)	108		67 - 125	04/13/16 11:38	04/13/16 14:40	1
Dibromofluoromethane (Surr)	95		37 - 132	04/13/16 11:38	04/13/16 14:40	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025		mg/L			04/15/16 00:04	1
1,2-Dichloroethane	0.025	U	0.025		mg/L			04/15/16 00:04	1
2-Butanone (MEK)	0.25	U	0.25		mg/L			04/15/16 00:04	1
Benzene	0.025	U	0.025		mg/L			04/15/16 00:04	1
Carbon tetrachloride	0.025	U	0.025		mg/L			04/15/16 00:04	1
Chlorobenzene	0.025	U	0.025		mg/L			04/15/16 00:04	1
Chloroform	0.025	U	0.025		mg/L			04/15/16 00:04	1
Tetrachloroethene	0.025	U	0.025		mg/L			04/15/16 00:04	1
Trichloroethene	0.025	U	0.025		mg/L			04/15/16 00:04	1
Vinyl chloride	0.025	U	0.025		mg/L			04/15/16 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 121*		*04/15/16 00:04*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 124*		*04/15/16 00:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/15/16 00:04*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 128*		*04/15/16 00:04*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025		mg/L			04/15/16 00:27	1
1,2-Dichloroethane	0.025	U	0.025		mg/L			04/15/16 00:27	1
2-Butanone (MEK)	0.25	U	0.25		mg/L			04/15/16 00:27	1
Benzene	0.025	U	0.025		mg/L			04/15/16 00:27	1
Carbon tetrachloride	0.025	U	0.025		mg/L			04/15/16 00:27	1
Chlorobenzene	0.025	U	0.025		mg/L			04/15/16 00:27	1
Chloroform	0.025	U	0.025		mg/L			04/15/16 00:27	1
Tetrachloroethene	**0.070**		0.025		mg/L			04/15/16 00:27	1
Trichloroethene	0.025	U	0.025		mg/L			04/15/16 00:27	1
Vinyl chloride	0.025	U	0.025		mg/L			04/15/16 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*80 - 121*		*04/15/16 00:27*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 124*		*04/15/16 00:27*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/15/16 00:27*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 128*		*04/15/16 00:27*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025		mg/L			04/15/16 00:51	1
1,2-Dichloroethane	0.025	U	0.025		mg/L			04/15/16 00:51	1
2-Butanone (MEK)	0.25	U	0.25		mg/L			04/15/16 00:51	1
Benzene	0.025	U	0.025		mg/L			04/15/16 00:51	1
Carbon tetrachloride	0.025	U	0.025		mg/L			04/15/16 00:51	1
Chlorobenzene	0.025	U	0.025		mg/L			04/15/16 00:51	1
Chloroform	0.025	U	0.025		mg/L			04/15/16 00:51	1
Tetrachloroethene	0.025	U	0.025		mg/L			04/15/16 00:51	1
Trichloroethene	0.025	U	0.025		mg/L			04/15/16 00:51	1
Vinyl chloride	0.025	U	0.025		mg/L			04/15/16 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*		*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 121*			*04/15/16 00:51*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 124*			*04/15/16 00:51*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*			*04/15/16 00:51*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 128*			*04/15/16 00:51*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
bis (2-chloroisopropyl) ether	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,4,5-Trichlorophenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,4,6-Trichlorophenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,4-Dichlorophenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,4-Dimethylphenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,4-Dinitrophenol	3500	U	3500		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,4-Dinitrotoluene	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2,6-Dinitrotoluene	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2-Chloronaphthalene	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2-Chlorophenol	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2-Methylnaphthalene	70	U	70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2-Methylphenol	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2-Nitroaniline	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
2-Nitrophenol	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
3,3'-Dichlorobenzidine	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
3-Nitroaniline	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4,6-Dinitro-2-methylphenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4-Bromophenyl phenyl ether	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4-Chloro-3-methylphenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4-Chloroaniline	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4-Chlorophenyl phenyl ether	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4-Nitroaniline	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
4-Nitrophenol	3500	U	3500		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Acenaphthene	**340**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Acenaphthylene	70	U	70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Acetophenone	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Anthracene	**220**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Atrazine	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Benzaldehyde	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Benzo[a]anthracene	**930**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Benzo[a]pyrene	**1100**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Benzo[b]fluoranthene	**1900**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Benzo[g,h,i]perylene	**920**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Benzo[k]fluoranthene	**680**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Bis(2-chloroethoxy)methane	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Bis(2-chloroethyl)ether	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Bis(2-ethylhexyl) phthalate	**2100**		740		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Butyl benzyl phthalate	740	U	740		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Caprolactam	3500	U	3500		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Carbazole	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Chrysene	**1500**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Dibenz(a,h)anthracene	**180**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Dibenzofuran	530	U	530		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Diethyl phthalate	740	U	740		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Dimethyl phthalate	740	U	740		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Di-n-butyl phthalate	740	U	740		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Di-n-octyl phthalate	740	U	740		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Fluoranthene	**2900**		70		ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**140**		70	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Hexachlorobenzene	70	U	70	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Hexachlorobutadiene	530	U	530	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Hexachlorocyclopentadiene	3500	U	3500	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Hexachloroethane	530	U	530	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Indeno[1,2,3-cd]pyrene	**720**		70	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Isophorone	530	U	530	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Naphthalene	70	U	70	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Nitrobenzene	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
N-Nitrosodi-n-propylamine	530	U	530	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
N-Nitrosodiphenylamine	530	U	530	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Pentachlorophenol	1600	U	1600	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Phenol	530	U	530	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Phenanthrene	**1300**		70	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
Pyrene	**2400**		70	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5
3 & 4 Methylphenol	4200	U	4200	ug/Kg	☼	04/13/16 07:58	04/19/16 18:46	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*80*		*24 - 110*	*04/13/16 07:58*	*04/19/16 18:46*	*5*
2-Fluorophenol (Surr)	*78*		*24 - 110*	*04/13/16 07:58*	*04/19/16 18:46*	*5*
2,4,6-Tribromophenol (Surr)	*86*		*10 - 110*	*04/13/16 07:58*	*04/19/16 18:46*	*5*
Nitrobenzene-d5 (Surr)	*74*		*20 - 110*	*04/13/16 07:58*	*04/19/16 18:46*	*5*
Phenol-d5 (Surr)	*82*		*26 - 110*	*04/13/16 07:58*	*04/19/16 18:46*	*5*
Terphenyl-d14 (Surr)	*89*		*36 - 110*	*04/13/16 07:58*	*04/19/16 18:46*	*5*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
bis (2-chloroisopropyl) ether	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,4,5-Trichlorophenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,4,6-Trichlorophenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,4-Dichlorophenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,4-Dimethylphenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,4-Dinitrophenol	3500	U	3500		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,4-Dinitrotoluene	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2,6-Dinitrotoluene	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2-Chloronaphthalene	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2-Chlorophenol	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2-Methylnaphthalene	71	U	71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2-Methylphenol	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2-Nitroaniline	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
2-Nitrophenol	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
3,3'-Dichlorobenzidine	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
3-Nitroaniline	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4,6-Dinitro-2-methylphenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4-Bromophenyl phenyl ether	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4-Chloro-3-methylphenol	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4-Chloroaniline	1600	U	1600		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4-Chlorophenyl phenyl ether	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4-Nitroaniline	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
4-Nitrophenol	3500	U	3500		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Acenaphthene	**540**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Acenaphthylene	71	U	71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Acetophenone	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Anthracene	**560**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Atrazine	2100	U	2100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Benzaldehyde	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Benzo[a]anthracene	**2000**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Benzo[a]pyrene	**1900**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Benzo[b]fluoranthene	**3000**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Benzo[g,h,i]perylene	**1200**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Benzo[k]fluoranthene	**1300**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Bis(2-chloroethoxy)methane	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Bis(2-chloroethyl)ether	1100	U	1100		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Bis(2-ethylhexyl) phthalate	**2200**		750		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Butyl benzyl phthalate	750	U	750		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Caprolactam	3500	U	3500		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Carbazole	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Chrysene	**2500**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Dibenz(a,h)anthracene	**270**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Dibenzofuran	530	U	530		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Diethyl phthalate	750	U	750		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Dimethyl phthalate	750	U	750		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Di-n-butyl phthalate	750	U	750		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Di-n-octyl phthalate	750	U	750		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Fluoranthene	**5500**		71		ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**280**		71	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Hexachlorobenzene	71	U	71	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Hexachlorobutadiene	530	U	530	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Hexachlorocyclopentadiene	3500	U	3500	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Hexachloroethane	530	U	530	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Indeno[1,2,3-cd]pyrene	**1100**		71	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Isophorone	530	U	530	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Naphthalene	**86**		71	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Nitrobenzene	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
N-Nitrosodi-n-propylamine	530	U	530	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
N-Nitrosodiphenylamine	530	U	530	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Pentachlorophenol	1600	U	1600	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Phenol	530	U	530	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Phenanthrene	**2900**		71	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
Pyrene	**4400**		71	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5
3 & 4 Methylphenol	4300	U	4300	ug/Kg	☼	04/13/16 07:58	04/15/16 19:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*24 - 110*	*04/13/16 07:58*	*04/15/16 19:10*	*5*
2-Fluorophenol (Surr)	*74*		*24 - 110*	*04/13/16 07:58*	*04/15/16 19:10*	*5*
2,4,6-Tribromophenol (Surr)	*72*		*10 - 110*	*04/13/16 07:58*	*04/15/16 19:10*	*5*
Nitrobenzene-d5 (Surr)	*77*		*20 - 110*	*04/13/16 07:58*	*04/15/16 19:10*	*5*
Phenol-d5 (Surr)	*78*		*26 - 110*	*04/13/16 07:58*	*04/15/16 19:10*	*5*
Terphenyl-d14 (Surr)	*81*		*36 - 110*	*04/13/16 07:58*	*04/15/16 19:10*	*5*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
bis (2-chloroisopropyl) ether	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,4,5-Trichlorophenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,4,6-Trichlorophenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,4-Dichlorophenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,4-Dimethylphenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,4-Dinitrophenol	3700	U	3700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,4-Dinitrotoluene	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2,6-Dinitrotoluene	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2-Chloronaphthalene	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2-Chlorophenol	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2-Methylnaphthalene	74	U	74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2-Methylphenol	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2-Nitroaniline	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
2-Nitrophenol	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
3,3'-Dichlorobenzidine	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
3-Nitroaniline	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4,6-Dinitro-2-methylphenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4-Bromophenyl phenyl ether	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4-Chloro-3-methylphenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4-Chloroaniline	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4-Chlorophenyl phenyl ether	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4-Nitroaniline	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
4-Nitrophenol	3700	U	3700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Acenaphthene	**470**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Acenaphthylene	74	U	74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Acetophenone	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Anthracene	**270**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Atrazine	2200	U	2200	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Benzaldehyde	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Benzo[a]anthracene	**1100**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Benzo[a]pyrene	**1300**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Benzo[b]fluoranthene	**2300**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Benzo[g,h,i]perylene	**940**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Benzo[k]fluoranthene	**830**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Bis(2-chloroethoxy)methane	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Bis(2-chloroethyl)ether	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Bis(2-ethylhexyl) phthalate	**2300**		780	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Butyl benzyl phthalate	780	U	780	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Caprolactam	3700	U	3700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Carbazole	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Chrysene	**1700**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Dibenz(a,h)anthracene	**210**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Dibenzofuran	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Diethyl phthalate	780	U	780	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Dimethyl phthalate	780	U	780	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Di-n-butyl phthalate	780	U	780	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Di-n-octyl phthalate	780	U	780	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Fluoranthene	**3400**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	**160**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Hexachlorobenzene	74	U	74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Hexachlorobutadiene	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Hexachlorocyclopentadiene	3700	U	3700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Hexachloroethane	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Indeno[1,2,3-cd]pyrene	**820**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Isophorone	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Naphthalene	74	U	74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Nitrobenzene	1100	U	1100	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
N-Nitrosodi-n-propylamine	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
N-Nitrosodiphenylamine	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Pentachlorophenol	1700	U	1700	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Phenol	550	U	550	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Phenanthrene	**1500**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
Pyrene	**2700**		74	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5
3 & 4 Methylphenol	4400	U	4400	ug/Kg	☼	04/13/16 07:58	04/19/16 19:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*84*		*24 - 110*	*04/13/16 07:58*	*04/19/16 19:11*	*5*
2-Fluorophenol (Surr)	*82*		*24 - 110*	*04/13/16 07:58*	*04/19/16 19:11*	*5*
2,4,6-Tribromophenol (Surr)	*85*		*10 - 110*	*04/13/16 07:58*	*04/19/16 19:11*	*5*
Nitrobenzene-d5 (Surr)	*82*		*20 - 110*	*04/13/16 07:58*	*04/19/16 19:11*	*5*
Phenol-d5 (Surr)	*88*		*26 - 110*	*04/13/16 07:58*	*04/19/16 19:11*	*5*
Terphenyl-d14 (Surr)	*94*		*36 - 110*	*04/13/16 07:58*	*04/19/16 19:11*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
2,4,5-Trichlorophenol	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
2,4,6-Trichlorophenol	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
2,4-Dinitrotoluene	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
Hexachlorobenzene	0.00080	U	0.00080		mg/L		04/14/16 10:48	04/18/16 14:11	1
Hexachlorobutadiene	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
Hexachloroethane	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
3 & 4 Methylphenol	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
2-Methylphenol	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
Nitrobenzene	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1
Pentachlorophenol	0.016	U	0.016		mg/L		04/14/16 10:48	04/18/16 14:11	1
Pyridine	0.0040	U	0.0040		mg/L		04/14/16 10:48	04/18/16 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*83*		*30 - 110*	*04/14/16 10:48*	*04/18/16 14:11*	*1*
2-Fluorophenol (Surr)	*74*		*20 - 110*	*04/14/16 10:48*	*04/18/16 14:11*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*23 - 110*	*04/14/16 10:48*	*04/18/16 14:11*	*1*
Nitrobenzene-d5 (Surr)	*78*		*28 - 110*	*04/14/16 10:48*	*04/18/16 14:11*	*1*
Phenol-d5 (Surr)	*68*		*21 - 110*	*04/14/16 10:48*	*04/18/16 14:11*	*1*
Terphenyl-d14 (Surr)	*116*	*X*	*48 - 110*	*04/14/16 10:48*	*04/18/16 14:11*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
2,4-Dinitrotoluene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
Hexachlorobenzene	0.00080	U	0.00080	mg/L		04/14/16 10:52	04/18/16 12:14	1
Hexachlorobutadiene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
Hexachloroethane	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
3 & 4 Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
2-Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
Nitrobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1
Pentachlorophenol	0.016	U	0.016	mg/L		04/14/16 10:52	04/18/16 12:14	1
Pyridine	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*30 - 110*	*04/14/16 10:52*	*04/18/16 12:14*	*1*
2-Fluorophenol (Surr)	*56*		*20 - 110*	*04/14/16 10:52*	*04/18/16 12:14*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*23 - 110*	*04/14/16 10:52*	*04/18/16 12:14*	*1*
Nitrobenzene-d5 (Surr)	*63*		*28 - 110*	*04/14/16 10:52*	*04/18/16 12:14*	*1*
Phenol-d5 (Surr)	*55*		*21 - 110*	*04/14/16 10:52*	*04/18/16 12:14*	*1*
Terphenyl-d14 (Surr)	*80*		*48 - 110*	*04/14/16 10:52*	*04/18/16 12:14*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
2,4-Dinitrotoluene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
Hexachlorobenzene	0.00080	U	0.00080	mg/L		04/14/16 10:52	04/18/16 12:40	1
Hexachlorobutadiene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
Hexachloroethane	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
3 & 4 Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
2-Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
Nitrobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1
Pentachlorophenol	0.016	U	0.016	mg/L		04/14/16 10:52	04/18/16 12:40	1
Pyridine	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*30 - 110*	*04/14/16 10:52*	*04/18/16 12:40*	*1*
2-Fluorophenol (Surr)	*64*		*20 - 110*	*04/14/16 10:52*	*04/18/16 12:40*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*23 - 110*	*04/14/16 10:52*	*04/18/16 12:40*	*1*
Nitrobenzene-d5 (Surr)	*69*		*28 - 110*	*04/14/16 10:52*	*04/18/16 12:40*	*1*
Phenol-d5 (Surr)	*66*		*21 - 110*	*04/14/16 10:52*	*04/18/16 12:40*	*1*
Terphenyl-d14 (Surr)	*93*		*48 - 110*	*04/14/16 10:52*	*04/18/16 12:40*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-039
Date Collected: 04/08/16 09:05
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-1
Matrix: Solid
Percent Solids: 45.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7100	U	7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100
Aroclor-1221	7100	U	7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100
Aroclor-1232	7100	U	7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100
Aroclor-1242	**60000**		7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100
Aroclor-1248	7100	U	7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100
Aroclor-1254	7100	U	7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100
Aroclor-1260	7100	U	7100		ug/Kg	☼	04/12/16 07:49	04/18/16 18:25	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*218*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 18:25*	*100*
DCB Decachlorobiphenyl	*223*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 18:25*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-040
Date Collected: 04/08/16 09:15
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-2
Matrix: Solid
Percent Solids: 47.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20
Aroclor-1221	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20
Aroclor-1232	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20
Aroclor-1242	**9300**		1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20
Aroclor-1248	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20
Aroclor-1254	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20
Aroclor-1260	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 18:43	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*146*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 18:43*	*20*
DCB Decachlorobiphenyl	*160*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 18:43*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-041
Date Collected: 04/08/16 09:20
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-3
Matrix: Solid
Percent Solids: 44.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1500	U	1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20
Aroclor-1221	1500	U	1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20
Aroclor-1232	1500	U	1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20
Aroclor-1242	**13000**		1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20
Aroclor-1248	1500	U	1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20
Aroclor-1254	**1600**		1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20
Aroclor-1260	1500	U	1500		ug/Kg	☼	04/12/16 07:49	04/18/16 19:01	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*118*		*13 - 134*	*04/12/16 07:49*	*04/18/16 19:01*	*20*
DCB Decachlorobiphenyl	*52*		*10 - 155*	*04/12/16 07:49*	*04/18/16 19:01*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-042
Date Collected: 04/08/16 09:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-4
Matrix: Solid
Percent Solids: 47.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3400	U	3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50
Aroclor-1221	3400	U	3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50
Aroclor-1232	3400	U	3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50
Aroclor-1242	**16000**		3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50
Aroclor-1248	3400	U	3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50
Aroclor-1254	3400	U	3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50
Aroclor-1260	3400	U	3400	ug/Kg	☼	04/12/16 07:49	04/18/16 19:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*131*		*13 - 134*	*04/12/16 07:49*	*04/18/16 19:20*	*50*
DCB Decachlorobiphenyl	*198*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 19:20*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-043
Date Collected: 04/08/16 09:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-5
Matrix: Solid
Percent Solids: 51.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50
Aroclor-1221	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50
Aroclor-1232	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50
Aroclor-1242	**18000**		3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50
Aroclor-1248	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50
Aroclor-1254	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50
Aroclor-1260	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:38	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*180*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 19:38*	*50*
DCB Decachlorobiphenyl	*256*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 19:38*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-044
Date Collected: 04/08/16 09:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-6
Matrix: Solid
Percent Solids: 49.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50
Aroclor-1221	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50
Aroclor-1232	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50
Aroclor-1242	**19000**		3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50
Aroclor-1248	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50
Aroclor-1254	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50
Aroclor-1260	3300	U	3300	ug/Kg	☼	04/12/16 07:49	04/18/16 19:56	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*157*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 19:56*	*50*
DCB Decachlorobiphenyl	*258*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 19:56*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-045
Date Collected: 04/08/16 10:25
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-7
Matrix: Solid
Percent Solids: 48.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20
Aroclor-1221	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20
Aroclor-1232	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20
Aroclor-1242	**8800**		1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20
Aroclor-1248	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20
Aroclor-1254	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20
Aroclor-1260	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:14	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*13 - 134*	*04/12/16 07:49*	*04/18/16 20:14*	*20*
DCB Decachlorobiphenyl	*111*		*10 - 155*	*04/12/16 07:49*	*04/18/16 20:14*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-046
Date Collected: 04/08/16 10:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-8
Matrix: Solid
Percent Solids: 49.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1300	U	1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20
Aroclor-1221	1300	U	1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20
Aroclor-1232	1300	U	1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20
Aroclor-1242	**7400**		1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20
Aroclor-1248	1300	U	1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20
Aroclor-1254	1300	U	1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20
Aroclor-1260	1300	U	1300	ug/Kg	☼	04/12/16 07:49	04/18/16 20:33	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*119*		*13 - 134*	*04/12/16 07:49*	*04/18/16 20:33*	*20*
DCB Decachlorobiphenyl	*131*		*10 - 155*	*04/12/16 07:49*	*04/18/16 20:33*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-047
Date Collected: 04/08/16 11:10
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-9
Matrix: Solid
Percent Solids: 48.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20
Aroclor-1221	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20
Aroclor-1232	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20
Aroclor-1242	**9800**		1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20
Aroclor-1248	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20
Aroclor-1254	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20
Aroclor-1260	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 20:51	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*83*		*13 - 134*	*04/12/16 07:49*	*04/18/16 20:51*	*20*
DCB Decachlorobiphenyl	*103*		*10 - 155*	*04/12/16 07:49*	*04/18/16 20:51*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-048
Date Collected: 04/08/16 11:20
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-10
Matrix: Solid
Percent Solids: 46.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20
Aroclor-1221	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20
Aroclor-1232	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20
Aroclor-1242	**8300**		1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20
Aroclor-1248	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20
Aroclor-1254	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20
Aroclor-1260	1400	U	1400		ug/Kg	☼	04/12/16 07:49	04/18/16 21:09	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*13 - 134*	*04/12/16 07:49*	*04/18/16 21:09*	*20*
DCB Decachlorobiphenyl	*118*		*10 - 155*	*04/12/16 07:49*	*04/18/16 21:09*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-049
Date Collected: 04/08/16 11:25
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-11
Matrix: Solid
Percent Solids: 51.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	3200	U	3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50
Aroclor-1221	3200	U	3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50
Aroclor-1232	3200	U	3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50
Aroclor-1242	**15000**		3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50
Aroclor-1248	3200	U	3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50
Aroclor-1254	3200	U	3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50
Aroclor-1260	3200	U	3200		ug/Kg	☼	04/12/16 07:49	04/18/16 21:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*159*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 21:27*	*50*
DCB Decachlorobiphenyl	*228*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 21:27*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-050
Date Collected: 04/08/16 13:35
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-12
Matrix: Solid
Percent Solids: 45.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7300	U F2	7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100
Aroclor-1221	7300	U	7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100
Aroclor-1232	7300	U	7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100
Aroclor-1242	**24000**		7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100
Aroclor-1248	7300	U	7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100
Aroclor-1254	7300	U	7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100
Aroclor-1260	7300	U	7300		ug/Kg	☼	04/12/16 07:49	04/18/16 21:46	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*245*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 21:46*	*100*
DCB Decachlorobiphenyl	*346*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 21:46*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	34000	U	34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500
Aroclor-1221	34000	U	34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500
Aroclor-1232	34000	U	34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500
Aroclor-1242	**76000**		34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500
Aroclor-1248	34000	U	34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500
Aroclor-1254	34000	U	34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500
Aroclor-1260	34000	U	34000	ug/Kg	☼	04/12/16 07:49	04/18/16 22:40	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*803*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 22:40*	*500*
DCB Decachlorobiphenyl	*1647*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 22:40*	*500*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7100	U	7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100
Aroclor-1221	7100	U	7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100
Aroclor-1232	7100	U	7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100
Aroclor-1242	**57000**		7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100
Aroclor-1248	7100	U	7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100
Aroclor-1254	7100	U	7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100
Aroclor-1260	7100	U	7100	ug/Kg	☼	04/12/16 07:49	04/18/16 22:59	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*231*	*X*	*13 - 134*	*04/12/16 07:49*	*04/18/16 22:59*	*100*
DCB Decachlorobiphenyl	*212*	*X*	*10 - 155*	*04/12/16 07:49*	*04/18/16 22:59*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	7200	U	7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100
Aroclor-1221	7200	U	7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100
Aroclor-1232	7200	U	7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100
Aroclor-1242	**68000**		7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100
Aroclor-1248	7200	U	7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100
Aroclor-1254	7200	U	7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100
Aroclor-1260	7200	U	7200	ug/Kg	☼	04/12/16 07:49	04/19/16 00:12	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*324*	*X*	*13 - 134*	*04/12/16 07:49*	*04/19/16 00:12*	*100*
DCB Decachlorobiphenyl	*126*		*10 - 155*	*04/12/16 07:49*	*04/19/16 00:12*	*100*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 6010B - Metals (ICP)

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	81		39		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1
Cadmium	1.7		0.39		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1
Chromium	30		0.98		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1
Silver	5.1		0.98		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1
Arsenic	8.8		2.0		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1
Lead	74	F1	0.59		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1
Selenium	0.98	U	0.98		mg/Kg	☼	04/13/16 11:54	04/14/16 17:58	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 6010B - Metals (ICP)

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	83		39		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1
Cadmium	1.6		0.39		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1
Chromium	30		0.98		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1
Silver	5.2		0.98		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1
Arsenic	8.8		2.0		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1
Lead	66		0.59		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1
Selenium	1.0		0.98		mg/Kg	☼	04/13/16 11:54	04/14/16 18:17	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 6010B - Metals (ICP)

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	**76**		39		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1
Cadmium	**1.5**		0.39		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1
Chromium	**29**		0.97		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1
Silver	**4.9**		0.97		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1
Arsenic	**8.8**		1.9		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1
Lead	**64**		0.58		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1
Selenium	0.97	U	0.97		mg/Kg	☼	04/13/16 11:54	04/14/16 18:30	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 6010B - Metals (ICP) - TCLP

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50		mg/L		04/14/16 11:14	04/15/16 15:43	1
Barium	10	U	10		mg/L		04/14/16 11:14	04/15/16 15:43	1
Cadmium	0.10	U	0.10		mg/L		04/14/16 11:14	04/15/16 15:43	1
Chromium	0.50	U	0.50		mg/L		04/14/16 11:14	04/15/16 15:43	1
Lead	0.50	U	0.50		mg/L		04/14/16 11:14	04/15/16 15:43	1
Selenium	0.25	U	0.25		mg/L		04/14/16 11:14	04/15/16 15:43	1
Silver	0.50	U	0.50		mg/L		04/14/16 11:14	04/15/16 15:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 6010B - Metals (ICP) - TCLP

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:12	1
Barium	10	U	10		mg/L		04/14/16 11:40	04/15/16 16:12	1
Cadmium	0.10	U	0.10		mg/L		04/14/16 11:40	04/15/16 16:12	1
Chromium	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:12	1
Lead	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:12	1
Selenium	0.25	U	0.25		mg/L		04/14/16 11:40	04/15/16 16:12	1
Silver	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:12	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 6010B - Metals (ICP) - TCLP

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:37	1
Barium	10	U	10		mg/L		04/14/16 11:40	04/15/16 16:37	1
Cadmium	0.10	U	0.10		mg/L		04/14/16 11:40	04/15/16 16:37	1
Chromium	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:37	1
Lead	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:37	1
Selenium	0.25	U	0.25		mg/L		04/14/16 11:40	04/15/16 16:37	1
Silver	0.50	U	0.50		mg/L		04/14/16 11:40	04/15/16 16:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 7470A - Mercury (CVAA) - TCLP

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020		mg/L		04/14/16 14:00	04/15/16 12:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 7470A - Mercury (CVAA) - TCLP

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020		mg/L		04/14/16 14:00	04/15/16 11:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 7470A - Mercury (CVAA) - TCLP

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020		mg/L		04/14/16 14:00	04/15/16 12:01	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19	U	0.19		mg/Kg	☼	04/13/16 15:00	04/14/16 07:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21	U	0.21		mg/Kg	☼	04/13/16 15:00	04/14/16 07:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21	U	0.21		mg/Kg	☼	04/13/16 15:00	04/14/16 07:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-039
Date Collected: 04/08/16 09:05
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-1
Matrix: Solid
Percent Solids: 45.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	45.8		0.1		%			04/11/16 11:26	1
Percent Moisture	54.2		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-040
Date Collected: 04/08/16 09:15
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-2
Matrix: Solid
Percent Solids: 47.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.1**		0.1		%			04/11/16 11:26	1
Percent Moisture	**52.9**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-041
Date Collected: 04/08/16 09:20
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-3
Matrix: Solid
Percent Solids: 44.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**44.8**		0.1		%			04/11/16 11:26	1
Percent Moisture	**55.2**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-042
Date Collected: 04/08/16 09:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-4
Matrix: Solid
Percent Solids: 47.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.8**		0.1		%			04/11/16 11:26	1
Percent Moisture	**52.2**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-043
Date Collected: 04/08/16 09:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-5
Matrix: Solid
Percent Solids: 51.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**51.1**		0.1		%			04/11/16 11:26	1
Percent Moisture	**48.9**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-044
Date Collected: 04/08/16 09:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-6
Matrix: Solid
Percent Solids: 49.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**49.5**		0.1		%			04/11/16 11:26	1
Percent Moisture	**50.5**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-045
Date Collected: 04/08/16 10:25
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-7
Matrix: Solid
Percent Solids: 48.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**48.9**		0.1		%			04/11/16 11:26	1
Percent Moisture	**51.1**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-046
Date Collected: 04/08/16 10:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-8
Matrix: Solid
Percent Solids: 49.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**49.5**		0.1		%			04/11/16 11:26	1
Percent Moisture	**50.5**		0.1		%			04/11/16 11:26	1

General Chemistry

Client Sample ID: SE-040816-JN-047
Date Collected: 04/08/16 11:10
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-9
Matrix: Solid
Percent Solids: 48.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**48.4**		0.1		%			04/11/16 11:26	1
Percent Moisture	**51.6**		0.1		%			04/11/16 11:26	1

General Chemistry

Client Sample ID: SE-040816-JN-048
Date Collected: 04/08/16 11:20
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-10
Matrix: Solid
Percent Solids: 46.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**46.4**		0.1		%			04/11/16 11:26	1
Percent Moisture	**53.6**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-049
Date Collected: 04/08/16 11:25
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-11
Matrix: Solid
Percent Solids: 51.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**51.2**		0.1		%			04/11/16 11:26	1
Percent Moisture	**48.8**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-050
Date Collected: 04/08/16 13:35
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-12
Matrix: Solid
Percent Solids: 45.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**45.5**		0.1		%			04/11/16 11:26	1
Percent Moisture	**54.5**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-052
Date Collected: 04/08/16 14:40
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-14
Matrix: Solid
Percent Solids: 47.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**47.5**		0.1		%			04/11/16 11:26	1
Percent Moisture	**52.5**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-053
Date Collected: 04/08/16 14:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-15
Matrix: Solid
Percent Solids: 46.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**46.2**		0.1		%			04/11/16 11:26	1
Percent Moisture	**53.8**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

General Chemistry

Client Sample ID: SE-040816-JN-054
Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16
Matrix: Solid
Percent Solids: 45.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**45.4**		0.1		%			04/11/16 11:26	1
Percent Moisture	**54.6**		0.1		%			04/11/16 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: D422 - Grain Size

Client Sample ID: SE-040816-JN-051
Date Collected: 04/08/16 13:45
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-13
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gravel	6.2				%			04/12/16 18:27	1
Sieve Size 3 inch - Percent Finer	100.0				% Passing			04/12/16 18:27	1
Sand	18.4				%			04/12/16 18:27	1
Sieve Size 2 inch - Percent Finer	100.0				% Passing			04/12/16 18:27	1
Coarse Sand	4.1				%			04/12/16 18:27	1
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			04/12/16 18:27	1
Medium Sand	4.9				%			04/12/16 18:27	1
Sieve Size 1 inch - Percent Finer	100.0				% Passing			04/12/16 18:27	1
Fine Sand	9.4				%			04/12/16 18:27	1
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing			04/12/16 18:27	1
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing			04/12/16 18:27	1
Silt	43.8				%			04/12/16 18:27	1
Clay	31.6				%			04/12/16 18:27	1
Sieve Size #4 - Percent Finer	93.8				% Passing			04/12/16 18:27	1
Sieve Size #10 - Percent Finer	89.7				% Passing			04/12/16 18:27	1
Sieve Size #20 - Percent Finer	87.4				% Passing			04/12/16 18:27	1
Sieve Size #40 - Percent Finer	84.8				% Passing			04/12/16 18:27	1
Sieve Size #60 - Percent Finer	81.8				% Passing			04/12/16 18:27	1
Sieve Size #80 - Percent Finer	80.1				% Passing			04/12/16 18:27	1
Sieve Size #100 - Percent Finer	79.1				% Passing			04/12/16 18:27	1
Sieve Size #200 - Percent Finer	75.4				% Passing			04/12/16 18:27	1
Hydrometer Reading 1 - Percent Finer	63.8				% Passing			04/12/16 18:27	1
Hydrometer Reading 2 - Percent Finer	58.4				% Passing			04/12/16 18:27	1
Hydrometer Reading 3 - Percent Finer	48.8				% Passing			04/12/16 18:27	1
Hydrometer Reading 4 - Percent Finer	39.1				% Passing			04/12/16 18:27	1
Hydrometer Reading 5 - Percent Finer	31.6				% Passing			04/12/16 18:27	1
Hydrometer Reading 6 - Percent Finer	20.6				% Passing			04/12/16 18:27	1
Hydrometer Reading 7 - Percent Finer	16.1				% Passing			04/12/16 18:27	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

GC/MS VOA

Analysis Batch: 225767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	8260B	225818
240-63312-15	SE-040816-JN-053	Total/NA	Solid	8260B	225818
240-63312-16	SE-040816-JN-054	Total/NA	Solid	8260B	225818
240-63312-16 MS	SE-040816-JN-054	Total/NA	Solid	8260B	225818
240-63312-16 MSD	SE-040816-JN-054	Total/NA	Solid	8260B	225818
LCS 240-225767/5	Lab Control Sample	Total/NA	Solid	8260B	
MB 240-225767/6	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 225818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	5030A	
240-63312-15	SE-040816-JN-053	Total/NA	Solid	5030A	
240-63312-16	SE-040816-JN-054	Total/NA	Solid	5030A	
240-63312-16 MS	SE-040816-JN-054	Total/NA	Solid	5030A	
240-63312-16 MSD	SE-040816-JN-054	Total/NA	Solid	5030A	

Leach Batch: 225954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	1311	
240-63312-15	SE-040816-JN-053	TCLP	Solid	1311	
240-63312-16	SE-040816-JN-054	TCLP	Solid	1311	
LB 240-225954/1-A MB	Method Blank	TCLP	Solid	1311	

Analysis Batch: 226030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	8260B	225954
240-63312-15	SE-040816-JN-053	TCLP	Solid	8260B	225954
240-63312-16	SE-040816-JN-054	TCLP	Solid	8260B	225954
LB 240-225954/1-A MB	Method Blank	TCLP	Solid	8260B	225954
LCS 240-226030/11	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 225750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	3540C	
240-63312-15	SE-040816-JN-053	Total/NA	Solid	3540C	
240-63312-16	SE-040816-JN-054	Total/NA	Solid	3540C	
LCS 240-225750/9-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225750/8-A	Method Blank	Total/NA	Solid	3540C	

Leach Batch: 225955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	TCLP	Solid	1311	
240-63312-16	SE-040816-JN-054	TCLP	Solid	1311	

Leach Batch: 225959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	1311	

GC/MS Semi VOA (Continued)

Prep Batch: 225976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	3510C	225959
LCS 240-225976/12-A	Lab Control Sample	Total/NA	Solid	3510C	
MB 240-225976/11-A	Method Blank	Total/NA	Solid	3510C	

Prep Batch: 225977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	TCLP	Solid	3510C	225955
240-63312-16	SE-040816-JN-054	TCLP	Solid	3510C	225955
LCS 240-225977/7-A	Lab Control Sample	Total/NA	Solid	3510C	
MB 240-225977/6-A	Method Blank	Total/NA	Solid	3510C	

Analysis Batch: 226080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	Total/NA	Solid	8270C	225750
LCS 240-225750/9-A	Lab Control Sample	Total/NA	Solid	8270C	225750
MB 240-225750/8-A	Method Blank	Total/NA	Solid	8270C	225750

Analysis Batch: 226287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	TCLP	Solid	8270C	225977
240-63312-16	SE-040816-JN-054	TCLP	Solid	8270C	225977
LCS 240-225977/7-A	Lab Control Sample	Total/NA	Solid	8270C	225977
MB 240-225977/6-A	Method Blank	Total/NA	Solid	8270C	225977

Analysis Batch: 226307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	8270C	225976
LCS 240-225976/12-A	Lab Control Sample	Total/NA	Solid	8270C	225976
MB 240-225976/11-A	Method Blank	Total/NA	Solid	8270C	225976

Analysis Batch: 226468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	8270C	225750
240-63312-16	SE-040816-JN-054	Total/NA	Solid	8270C	225750

GC Semi VOA

Prep Batch: 225544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-1	SE-040816-JN-039	Total/NA	Solid	3540C	
240-63312-2	SE-040816-JN-040	Total/NA	Solid	3540C	
240-63312-3	SE-040816-JN-041	Total/NA	Solid	3540C	
240-63312-4	SE-040816-JN-042	Total/NA	Solid	3540C	
240-63312-5	SE-040816-JN-043	Total/NA	Solid	3540C	
240-63312-6	SE-040816-JN-044	Total/NA	Solid	3540C	
240-63312-7	SE-040816-JN-045	Total/NA	Solid	3540C	
240-63312-8	SE-040816-JN-046	Total/NA	Solid	3540C	
240-63312-9	SE-040816-JN-047	Total/NA	Solid	3540C	
240-63312-10	SE-040816-JN-048	Total/NA	Solid	3540C	
240-63312-11	SE-040816-JN-049	Total/NA	Solid	3540C	

GC Semi VOA (Continued)

Prep Batch: 225544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-12	SE-040816-JN-050	Total/NA	Solid	3540C	
240-63312-12 MS	SE-040816-JN-050	Total/NA	Solid	3540C	
240-63312-12 MSD	SE-040816-JN-050	Total/NA	Solid	3540C	
240-63312-14	SE-040816-JN-052	Total/NA	Solid	3540C	
240-63312-15	SE-040816-JN-053	Total/NA	Solid	3540C	
240-63312-16	SE-040816-JN-054	Total/NA	Solid	3540C	
LCS 240-225544/21-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225544/20-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 226388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-1	SE-040816-JN-039	Total/NA	Solid	8082	225544
240-63312-2	SE-040816-JN-040	Total/NA	Solid	8082	225544
240-63312-3	SE-040816-JN-041	Total/NA	Solid	8082	225544
240-63312-4	SE-040816-JN-042	Total/NA	Solid	8082	225544
240-63312-5	SE-040816-JN-043	Total/NA	Solid	8082	225544
240-63312-6	SE-040816-JN-044	Total/NA	Solid	8082	225544
240-63312-7	SE-040816-JN-045	Total/NA	Solid	8082	225544
240-63312-8	SE-040816-JN-046	Total/NA	Solid	8082	225544
240-63312-9	SE-040816-JN-047	Total/NA	Solid	8082	225544
240-63312-10	SE-040816-JN-048	Total/NA	Solid	8082	225544
240-63312-11	SE-040816-JN-049	Total/NA	Solid	8082	225544
240-63312-12	SE-040816-JN-050	Total/NA	Solid	8082	225544
240-63312-12 MS	SE-040816-JN-050	Total/NA	Solid	8082	225544
240-63312-12 MSD	SE-040816-JN-050	Total/NA	Solid	8082	225544
240-63312-14	SE-040816-JN-052	Total/NA	Solid	8082	225544
240-63312-15	SE-040816-JN-053	Total/NA	Solid	8082	225544
240-63312-16	SE-040816-JN-054	Total/NA	Solid	8082	225544
LCS 240-225544/21-A	Lab Control Sample	Total/NA	Solid	8082	225544
MB 240-225544/20-A	Method Blank	Total/NA	Solid	8082	225544

Metals

Prep Batch: 225826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	3050B	
240-63312-14 MS	SE-040816-JN-052	Total/NA	Solid	3050B	
240-63312-14 MSD	SE-040816-JN-052	Total/NA	Solid	3050B	
240-63312-15	SE-040816-JN-053	Total/NA	Solid	3050B	
240-63312-16	SE-040816-JN-054	Total/NA	Solid	3050B	
LCS 240-225826/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 240-225826/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 225834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	7471A	
240-63312-14 MS	SE-040816-JN-052	Total/NA	Solid	7471A	
240-63312-14 MSD	SE-040816-JN-052	Total/NA	Solid	7471A	
240-63312-15	SE-040816-JN-053	Total/NA	Solid	7471A	
240-63312-16	SE-040816-JN-054	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 225834 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-225834/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 240-225834/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 225925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	7471A	225834
240-63312-14 MS	SE-040816-JN-052	Total/NA	Solid	7471A	225834
240-63312-14 MSD	SE-040816-JN-052	Total/NA	Solid	7471A	225834
240-63312-15	SE-040816-JN-053	Total/NA	Solid	7471A	225834
240-63312-16	SE-040816-JN-054	Total/NA	Solid	7471A	225834
LCS 240-225834/2-A	Lab Control Sample	Total/NA	Solid	7471A	225834
MB 240-225834/1-A	Method Blank	Total/NA	Solid	7471A	225834

Leach Batch: 225955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	TCLP	Solid	1311	
240-63312-15 MS	SE-040816-JN-053	TCLP	Solid	1311	
240-63312-15 MSD	SE-040816-JN-053	TCLP	Solid	1311	
240-63312-16	SE-040816-JN-054	TCLP	Solid	1311	
LB 240-225955/1-B	Method Blank	TCLP	Solid	1311	
LB 240-225955/1-C	Method Blank	TCLP	Solid	1311	

Leach Batch: 225959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	1311	
LB 240-225959/1-B	Method Blank	TCLP	Solid	1311	
LB 240-225959/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 225985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	3010A	225959
LB 240-225959/1-B	Method Blank	TCLP	Solid	3010A	225959
LCS 240-225985/3-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 240-225985/2-A	Method Blank	Total/NA	Solid	3010A	

Prep Batch: 225987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	7470A	225959
LB 240-225959/1-C	Method Blank	TCLP	Solid	7470A	225959
LCS 240-225987/3-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 240-225987/2-A	Method Blank	Total/NA	Solid	7470A	

Prep Batch: 225989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	TCLP	Solid	3010A	225955
240-63312-15 MS	SE-040816-JN-053	TCLP	Solid	3010A	225955
240-63312-15 MSD	SE-040816-JN-053	TCLP	Solid	3010A	225955
240-63312-16	SE-040816-JN-054	TCLP	Solid	3010A	225955
LB 240-225955/1-B	Method Blank	TCLP	Solid	3010A	225955
LCS 240-225989/3-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 240-225989/2-A	Method Blank	Total/NA	Solid	3010A	

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Prep Batch: 225991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-15	SE-040816-JN-053	TCLP	Solid	7470A	225955
240-63312-15 MS	SE-040816-JN-053	TCLP	Solid	7470A	225955
240-63312-15 MSD	SE-040816-JN-053	TCLP	Solid	7470A	225955
240-63312-16	SE-040816-JN-054	TCLP	Solid	7470A	225955
LB 240-225955/1-C	Method Blank	TCLP	Solid	7470A	225955
LCS 240-225991/3-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 240-225991/2-A	Method Blank	Total/NA	Solid	7470A	

Analysis Batch: 226077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	Total/NA	Solid	6010B	225826
240-63312-14 MS	SE-040816-JN-052	Total/NA	Solid	6010B	225826
240-63312-14 MSD	SE-040816-JN-052	Total/NA	Solid	6010B	225826
240-63312-15	SE-040816-JN-053	Total/NA	Solid	6010B	225826
240-63312-16	SE-040816-JN-054	Total/NA	Solid	6010B	225826
LCS 240-225826/2-A	Lab Control Sample	Total/NA	Solid	6010B	225826
MB 240-225826/1-A	Method Blank	Total/NA	Solid	6010B	225826

Analysis Batch: 226155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	6010B	225985
240-63312-15	SE-040816-JN-053	TCLP	Solid	6010B	225989
240-63312-15 MS	SE-040816-JN-053	TCLP	Solid	6010B	225989
240-63312-15 MSD	SE-040816-JN-053	TCLP	Solid	6010B	225989
240-63312-16	SE-040816-JN-054	TCLP	Solid	6010B	225989
LB 240-225955/1-B	Method Blank	TCLP	Solid	6010B	225989
LB 240-225959/1-B	Method Blank	TCLP	Solid	6010B	225985
LCS 240-225985/3-A	Lab Control Sample	Total/NA	Solid	6010B	225985
LCS 240-225989/3-A	Lab Control Sample	Total/NA	Solid	6010B	225989
MB 240-225985/2-A	Method Blank	Total/NA	Solid	6010B	225985
MB 240-225989/2-A	Method Blank	Total/NA	Solid	6010B	225989

Analysis Batch: 226284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-14	SE-040816-JN-052	TCLP	Solid	7470A	225987
240-63312-15	SE-040816-JN-053	TCLP	Solid	7470A	225991
240-63312-15 MS	SE-040816-JN-053	TCLP	Solid	7470A	225991
240-63312-15 MSD	SE-040816-JN-053	TCLP	Solid	7470A	225991
240-63312-16	SE-040816-JN-054	TCLP	Solid	7470A	225991
LB 240-225955/1-C	Method Blank	TCLP	Solid	7470A	225991
LB 240-225959/1-C	Method Blank	TCLP	Solid	7470A	225987
LCS 240-225987/3-A	Lab Control Sample	Total/NA	Solid	7470A	225987
LCS 240-225991/3-A	Lab Control Sample	Total/NA	Solid	7470A	225991
MB 240-225987/2-A	Method Blank	Total/NA	Solid	7470A	225987
MB 240-225991/2-A	Method Blank	Total/NA	Solid	7470A	225991

General Chemistry

Analysis Batch: 225417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-1	SE-040816-JN-039	Total/NA	Solid	Moisture	
240-63312-1 DU	SE-040816-JN-039	Total/NA	Solid	Moisture	
240-63312-2	SE-040816-JN-040	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 225417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-3	SE-040816-JN-041	Total/NA	Solid	Moisture	
240-63312-4	SE-040816-JN-042	Total/NA	Solid	Moisture	
240-63312-5	SE-040816-JN-043	Total/NA	Solid	Moisture	
240-63312-6	SE-040816-JN-044	Total/NA	Solid	Moisture	
240-63312-7	SE-040816-JN-045	Total/NA	Solid	Moisture	
240-63312-8	SE-040816-JN-046	Total/NA	Solid	Moisture	
240-63312-9	SE-040816-JN-047	Total/NA	Solid	Moisture	
240-63312-10	SE-040816-JN-048	Total/NA	Solid	Moisture	
240-63312-10 DU	SE-040816-JN-048	Total/NA	Solid	Moisture	
240-63312-11	SE-040816-JN-049	Total/NA	Solid	Moisture	
240-63312-12	SE-040816-JN-050	Total/NA	Solid	Moisture	
240-63312-12 DU	SE-040816-JN-050	Total/NA	Solid	Moisture	
240-63312-14	SE-040816-JN-052	Total/NA	Solid	Moisture	
240-63312-15	SE-040816-JN-053	Total/NA	Solid	Moisture	
240-63312-16	SE-040816-JN-054	Total/NA	Solid	Moisture	

Geotechnical

Analysis Batch: 103373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63312-13	SE-040816-JN-051	Total/NA	Solid	D422	

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-225767/6
Matrix: Solid
Analysis Batch: 225767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	20	ug/Kg			04/13/16 11:03	1
Dichlorobromomethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Bromoform	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Bromomethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
2-Butanone (MEK)	20	U	20	ug/Kg			04/13/16 11:03	1
Carbon disulfide	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Benzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Carbon tetrachloride	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Chlorobenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Chloroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Chloroform	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Chloromethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,1-Dichloroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,2-Dichloroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,1-Dichloroethene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,2-Dichloropropane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
cis-1,3-Dichloropropene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
trans-1,3-Dichloropropene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Ethylbenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
2-Hexanone	20	U	20	ug/Kg			04/13/16 11:03	1
Methylene Chloride	6.48		5.0	ug/Kg			04/13/16 11:03	1
4-Methyl-2-pentanone (MIBK)	20	U	20	ug/Kg			04/13/16 11:03	1
Styrene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,1,2,2-Tetrachloroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Tetrachloroethene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Toluene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Trichloroethene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Vinyl chloride	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Xylenes, Total	10	U	10	ug/Kg			04/13/16 11:03	1
1,1,1-Trichloroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,1,2-Trichloroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Cyclohexane	10	U	10	ug/Kg			04/13/16 11:03	1
1,2-Dibromo-3-Chloropropane	10	U	10	ug/Kg			04/13/16 11:03	1
Ethylene Dibromide	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Dichlorodifluoromethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
cis-1,2-Dichloroethene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
trans-1,2-Dichloroethene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Isopropylbenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Methyl acetate	10	U	10	ug/Kg			04/13/16 11:03	1
Methyl tert-butyl ether	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,2,4-Trichlorobenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,2-Dichlorobenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,3-Dichlorobenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
1,4-Dichlorobenzene	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Trichlorofluoromethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Chlorodibromomethane	5.0	U	5.0	ug/Kg			04/13/16 11:03	1
Methylcyclohexane	10	U	10	ug/Kg			04/13/16 11:03	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		58 - 123		04/13/16 11:03	1
4-Bromofluorobenzene (Surr)	91		52 - 136		04/13/16 11:03	1
Toluene-d8 (Surr)	94		67 - 125		04/13/16 11:03	1
Dibromofluoromethane (Surr)	98		37 - 132		04/13/16 11:03	1

Lab Sample ID: LCS 240-225767/5
Matrix: Solid
Analysis Batch: 225767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	75.9		ug/Kg		76	41 - 137
Dichlorobromomethane	50.0	61.2		ug/Kg		122	80 - 122
Bromoform	50.0	59.9		ug/Kg		120	62 - 133
Bromomethane	20.0	20.3		ug/Kg		102	42 - 136
2-Butanone (MEK)	100	85.6		ug/Kg		86	52 - 131
Carbon disulfide	50.0	60.5		ug/Kg		121	62 - 146
Benzene	50.0	51.7		ug/Kg		103	79 - 120
Carbon tetrachloride	50.0	64.2		ug/Kg		128	71 - 129
Chlorobenzene	50.0	49.7		ug/Kg		99	78 - 120
Chloroethane	20.0	22.8		ug/Kg		114	58 - 120
Chloroform	50.0	58.3		ug/Kg		117	77 - 120
Chloromethane	20.0	20.5		ug/Kg		103	50 - 120
1,1-Dichloroethane	50.0	52.0		ug/Kg		104	76 - 120
1,2-Dichloroethane	50.0	56.4		ug/Kg		113	72 - 120
1,1-Dichloroethene	50.0	56.2		ug/Kg		112	75 - 135
1,2-Dichloropropane	50.0	49.7		ug/Kg		99	80 - 120
cis-1,3-Dichloropropene	50.0	55.1		ug/Kg		110	74 - 128
trans-1,3-Dichloropropene	50.0	56.2		ug/Kg		112	73 - 131
Ethylbenzene	50.0	53.9		ug/Kg		108	79 - 120
2-Hexanone	100	91.9		ug/Kg		92	64 - 136
Methylene Chloride	50.0	56.2		ug/Kg		112	75 - 120
4-Methyl-2-pentanone (MIBK)	100	96.6		ug/Kg		97	67 - 135
Styrene	50.0	56.3		ug/Kg		113	80 - 120
1,1,2,2-Tetrachloroethane	50.0	56.0		ug/Kg		112	77 - 123
Tetrachloroethene	50.0	55.4		ug/Kg		111	79 - 120
Toluene	50.0	51.5		ug/Kg		103	75 - 120
Trichloroethene	50.0	56.0		ug/Kg		112	79 - 120
Vinyl chloride	20.0	21.7		ug/Kg		109	57 - 120
Xylenes, Total	100	109		ug/Kg		109	80 - 120
1,1,1-Trichloroethane	50.0	64.5	*	ug/Kg		129	77 - 126
1,1,2-Trichloroethane	50.0	49.6		ug/Kg		99	80 - 120
Cyclohexane	50.0	50.9		ug/Kg		102	66 - 120
1,2-Dibromo-3-Chloropropane	50.0	56.1		ug/Kg		112	61 - 132
Ethylene Dibromide	50.0	57.0		ug/Kg		114	80 - 120
Dichlorodifluoromethane	20.0	32.2	*	ug/Kg		161	26 - 120
cis-1,2-Dichloroethene	50.0	51.6		ug/Kg		103	76 - 120
trans-1,2-Dichloroethene	50.0	54.4		ug/Kg		109	78 - 120
Isopropylbenzene	50.0	58.8		ug/Kg		118	76 - 122
Methyl acetate	250	232		ug/Kg		93	57 - 130
Methyl tert-butyl ether	50.0	53.8		ug/Kg		108	49 - 165
1,1,2-Trichloro-1,2,2-trifluoroetha ne	50.0	61.8		ug/Kg		124	80 - 138
1,2,4-Trichlorobenzene	50.0	56.9		ug/Kg		114	64 - 124
1,2-Dichlorobenzene	50.0	53.5		ug/Kg		107	76 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-225767/5
Matrix: Solid
Analysis Batch: 225767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	50.0	52.0		ug/Kg		104	78 - 120
1,4-Dichlorobenzene	50.0	51.9		ug/Kg		104	75 - 120
Trichlorofluoromethane	20.0	27.3		ug/Kg		136	57 - 146
Methylcyclohexane	50.0	55.2		ug/Kg		110	70 - 126
m-Xylene & p-Xylene	50.0	54.7		ug/Kg		109	80 - 120
o-Xylene	50.0	53.8		ug/Kg		108	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*58 - 123*
4-Bromofluorobenzene (Surr)	*95*		*52 - 136*
Toluene-d8 (Surr)	*95*		*67 - 125*
Dibromofluoromethane (Surr)	*100*		*37 - 132*

Lab Sample ID: 240-63312-16 MS
Matrix: Solid
Analysis Batch: 225767

Client Sample ID: SE-040816-JN-054
Prep Type: Total/NA
Prep Batch: 225818

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	110		209	265		ug/Kg	☼	76	24 - 140
Dichlorobromomethane	11	U	105	66.1		ug/Kg	☼	63	35 - 132
Bromoform	11	U	105	42.7		ug/Kg	☼	41	18 - 129
Bromomethane	11	U	41.8	35.7		ug/Kg	☼	85	33 - 130
2-Butanone (MEK)	43	U	209	174		ug/Kg	☼	77	30 - 143
Carbon disulfide	11	U	105	93.8		ug/Kg	☼	86	20 - 151
Benzene	11	U	105	78.3		ug/Kg	☼	75	53 - 120
Carbon tetrachloride	11	U	105	45.5		ug/Kg	☼	43	32 - 137
Chlorobenzene	11	U	105	48.4		ug/Kg	☼	46	37 - 120
Chloroethane	11	U	41.8	40.9		ug/Kg	☼	98	45 - 120
Chloroform	11	U	105	93.8		ug/Kg	☼	90	53 - 120
Chloromethane	11	U	41.8	36.4		ug/Kg	☼	87	34 - 120
1,1-Dichloroethane	11	U	105	85.8		ug/Kg	☼	82	54 - 122
1,2-Dichloroethane	11	U	105	92.0		ug/Kg	☼	88	49 - 123
1,1-Dichloroethene	11	U	105	91.4		ug/Kg	☼	87	49 - 157
1,2-Dichloropropane	11	U	105	77.3		ug/Kg	☼	74	61 - 120
cis-1,3-Dichloropropene	11	U	105	61.9		ug/Kg	☼	59	27 - 133
trans-1,3-Dichloropropene	11	U	105	65.9		ug/Kg	☼	63	28 - 137
Ethylbenzene	11	U	105	43.6		ug/Kg	☼	40	30 - 131
2-Hexanone	43	U	209	177		ug/Kg	☼	84	37 - 147
Methylene Chloride	15	B	105	101		ug/Kg	☼	82	54 - 120
4-Methyl-2-pentanone (MIBK)	43	U	209	184		ug/Kg	☼	88	43 - 147
Styrene	11	U	105	45.1		ug/Kg	☼	43	27 - 127
1,1,2,2-Tetrachloroethane	11	U *	105	76.6		ug/Kg	☼	73	16 - 179
Tetrachloroethene	11	U	105	46.8		ug/Kg	☼	45	31 - 135
Toluene	11	U	105	61.4		ug/Kg	☼	59	39 - 129
Trichloroethene	11	U	105	67.5		ug/Kg	☼	65	10 - 177
Vinyl chloride	11	U	41.8	40.8		ug/Kg	☼	97	42 - 120
Xylenes, Total	21	U	209	88.0		ug/Kg	☼	42	30 - 131
1,1,1-Trichloroethane	11	U *	105	84.6		ug/Kg	☼	81	51 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-63312-16 MS — **Client Sample ID: SE-040816-JN-054**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225767 — **Prep Batch: 225818**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	11	U	105	77.8		ug/Kg	☼	74	10 - 166
Cyclohexane	21	U	105	40.4		ug/Kg	☼	39	28 - 120
1,2-Dibromo-3-Chloropropane	21	U *	105	52.0		ug/Kg	☼	50	10 - 153
Ethylene Dibromide	11	U	105	84.9		ug/Kg	☼	81	45 - 127
Dichlorodifluoromethane	11	U F1 *	41.8	51.5	F1	ug/Kg	☼	122	17 - 120
cis-1,2-Dichloroethene	11	U	105	81.4		ug/Kg	☼	78	50 - 120
trans-1,2-Dichloroethene	11	U	105	87.0		ug/Kg	☼	83	50 - 123
Isopropylbenzene	34	F1	105	47.4	F1	ug/Kg	☼	13	21 - 134
Methyl acetate	21	U	523	458		ug/Kg	☼	88	33 - 165
Methyl tert-butyl ether	11	U	105	97.9		ug/Kg	☼	94	51 - 157
1,1,2-Trichloro-1,2,2-trifluoroethane	11	U	105	72.0		ug/Kg	☼	69	50 - 147
1,2,4-Trichlorobenzene	11	U *	105	16.8		ug/Kg	☼	16	10 - 120
1,2-Dichlorobenzene	11	U *	105	30.9		ug/Kg	☼	30	17 - 122
1,3-Dichlorobenzene	11	U *	105	32.3		ug/Kg	☼	29	16 - 126
1,4-Dichlorobenzene	11	U *	105	32.8		ug/Kg	☼	29	15 - 121
Trichlorofluoromethane	11	U	41.8	38.5		ug/Kg	☼	92	36 - 142
Methylcyclohexane	21	U	105	30.8		ug/Kg	☼	29	20 - 132
m-Xylene & p-Xylene	21	U	105	44.5		ug/Kg	☼	43	29 - 131
o-Xylene	11	U	105	43.5		ug/Kg	☼	42	29 - 134

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*58 - 123*
4-Bromofluorobenzene (Surr)	*107*		*52 - 136*
Toluene-d8 (Surr)	*96*		*67 - 125*
Dibromofluoromethane (Surr)	*99*		*37 - 132*

Lab Sample ID: 240-63312-16 MSD — **Client Sample ID: SE-040816-JN-054**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225767 — **Prep Batch: 225818**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	110		195	266		ug/Kg	☼	82	24 - 140	1	30
Dichlorobromomethane	11	U	97.4	65.9		ug/Kg	☼	68	35 - 132	0	30
Bromoform	11	U	97.4	46.2		ug/Kg	☼	47	18 - 129	8	30
Bromomethane	11	U	39.0	33.9		ug/Kg	☼	87	33 - 130	5	30
2-Butanone (MEK)	43	U	195	161		ug/Kg	☼	76	30 - 143	8	30
Carbon disulfide	11	U	97.4	93.4		ug/Kg	☼	92	20 - 151	0	30
Benzene	11	U	97.4	76.6		ug/Kg	☼	79	53 - 120	2	30
Carbon tetrachloride	11	U	97.4	48.7		ug/Kg	☼	50	32 - 137	7	30
Chlorobenzene	11	U	97.4	48.4		ug/Kg	☼	50	37 - 120	0	30
Chloroethane	11	U	39.0	37.0		ug/Kg	☼	95	45 - 120	10	30
Chloroform	11	U	97.4	90.6		ug/Kg	☼	93	53 - 120	3	30
Chloromethane	11	U	39.0	36.5		ug/Kg	☼	94	34 - 120	0	30
1,1-Dichloroethane	11	U	97.4	84.1		ug/Kg	☼	86	54 - 122	2	30
1,2-Dichloroethane	11	U	97.4	84.3		ug/Kg	☼	87	49 - 123	9	30
1,1-Dichloroethene	11	U	97.4	90.2		ug/Kg	☼	93	49 - 157	1	30
1,2-Dichloropropane	11	U	97.4	73.2		ug/Kg	☼	75	61 - 120	5	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-63312-16 MSD
Matrix: Solid
Analysis Batch: 225767

Client Sample ID: SE-040816-JN-054
Prep Type: Total/NA
Prep Batch: 225818

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	11	U	97.4	60.0		ug/Kg	☼	62	27 - 133	3	30
trans-1,3-Dichloropropene	11	U	97.4	64.1		ug/Kg	☼	66	28 - 137	3	30
Ethylbenzene	11	U	97.4	48.2		ug/Kg	☼	48	30 - 131	10	30
2-Hexanone	43	U	195	166		ug/Kg	☼	85	37 - 147	6	30
Methylene Chloride	15	B	97.4	96.0		ug/Kg	☼	83	54 - 120	5	30
4-Methyl-2-pentanone (MIBK)	43	U	195	175		ug/Kg	☼	90	43 - 147	5	30
Styrene	11	U	97.4	48.5		ug/Kg	☼	50	27 - 127	7	30
1,1,2,2-Tetrachloroethane	11	U *	97.4	76.7		ug/Kg	☼	79	16 - 179	0	30
Tetrachloroethene	11	U	97.4	49.2		ug/Kg	☼	50	31 - 135	5	30
Toluene	11	U	97.4	63.5		ug/Kg	☼	65	39 - 129	3	30
Trichloroethene	11	U	97.4	68.8		ug/Kg	☼	71	10 - 177	2	30
Vinyl chloride	11	U	39.0	39.8		ug/Kg	☼	102	42 - 120	3	30
Xylenes, Total	21	U	195	92.4		ug/Kg	☼	47	30 - 131	5	30
1,1,1-Trichloroethane	11	U *	97.4	84.8		ug/Kg	☼	87	51 - 128	0	30
1,1,2-Trichloroethane	11	U	97.4	75.3		ug/Kg	☼	77	10 - 166	3	30
Cyclohexane	21	U	97.4	43.1		ug/Kg	☼	44	28 - 120	6	30
1,2-Dibromo-3-Chloropropane	21	U *	97.4	56.3		ug/Kg	☼	58	10 - 153	8	30
Ethylene Dibromide	11	U	97.4	82.4		ug/Kg	☼	85	45 - 127	3	30
Dichlorodifluoromethane	11	U F1 *	39.0	53.0	F1	ug/Kg	☼	134	17 - 120	3	30
cis-1,2-Dichloroethene	11	U	97.4	77.1		ug/Kg	☼	79	50 - 120	5	30
trans-1,2-Dichloroethene	11	U	97.4	83.4		ug/Kg	☼	86	50 - 123	4	30
Isopropylbenzene	34	F1	97.4	50.0	F1	ug/Kg	☼	16	21 - 134	5	30
Methyl acetate	21	U	487	416		ug/Kg	☼	86	33 - 165	10	30
Methyl tert-butyl ether	11	U	97.4	90.5		ug/Kg	☼	93	51 - 157	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	11	U	97.4	72.4		ug/Kg	☼	74	50 - 147	1	30
1,2,4-Trichlorobenzene	11	U *	97.4	16.8		ug/Kg	☼	17	10 - 120	0	30
1,2-Dichlorobenzene	11	U *	97.4	34.5		ug/Kg	☼	35	17 - 122	11	30
1,3-Dichlorobenzene	11	U *	97.4	35.6		ug/Kg	☼	34	16 - 126	10	30
1,4-Dichlorobenzene	11	U *	97.4	35.2		ug/Kg	☼	34	15 - 121	7	30
Trichlorofluoromethane	11	U	39.0	40.2		ug/Kg	☼	103	36 - 142	4	30
Methylcyclohexane	21	U	97.4	30.8		ug/Kg	☼	32	20 - 132	0	30
m-Xylene & p-Xylene	21	U	97.4	46.3		ug/Kg	☼	47	29 - 131	4	30
o-Xylene	11	U	97.4	46.1		ug/Kg	☼	47	29 - 134	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*58 - 123*
4-Bromofluorobenzene (Surr)	*110*		*52 - 136*
Toluene-d8 (Surr)	*99*		*67 - 125*
Dibromofluoromethane (Surr)	*101*		*37 - 132*

Lab Sample ID: LCS 240-226030/11
Matrix: Solid
Analysis Batch: 226030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Butanone (MEK)			2.00	1.94		mg/L		97	49 - 120		
Benzene			1.00	1.04		mg/L		104	80 - 120		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-226030/11
Matrix: Solid
Analysis Batch: 226030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	1.00	1.04		mg/L		104	54 - 122
Chlorobenzene	1.00	1.01		mg/L		101	80 - 120
Chloroform	1.00	1.03		mg/L		103	80 - 123
1,2-Dichloroethane	1.00	1.05		mg/L		105	80 - 120
1,1-Dichloroethene	1.00	1.15		mg/L		115	71 - 133
Tetrachloroethene	1.00	1.07		mg/L		107	79 - 134
Trichloroethene	1.00	1.09		mg/L		109	78 - 130
Vinyl chloride	1.00	1.19		mg/L		119	56 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 121*
4-Bromofluorobenzene (Surr)	*100*		*70 - 124*
Toluene-d8 (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 128*

Lab Sample ID: LB 240-225954/1-A MB
Matrix: Solid
Analysis Batch: 226030

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.25	U	0.25	mg/L			04/14/16 19:50	1
Benzene	0.025	U	0.025	mg/L			04/14/16 19:50	1
Carbon tetrachloride	0.025	U	0.025	mg/L			04/14/16 19:50	1
Chlorobenzene	0.025	U	0.025	mg/L			04/14/16 19:50	1
Chloroform	0.025	U	0.025	mg/L			04/14/16 19:50	1
1,2-Dichloroethane	0.025	U	0.025	mg/L			04/14/16 19:50	1
1,1-Dichloroethene	0.025	U	0.025	mg/L			04/14/16 19:50	1
Tetrachloroethene	0.025	U	0.025	mg/L			04/14/16 19:50	1
Trichloroethene	0.025	U	0.025	mg/L			04/14/16 19:50	1
Vinyl chloride	0.025	U	0.025	mg/L			04/14/16 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*80 - 121*		*04/14/16 19:50*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 124*		*04/14/16 19:50*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/14/16 19:50*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 128*		*04/14/16 19:50*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-225750/8-A
Matrix: Solid
Analysis Batch: 226080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225750

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
bis (2-chloroisopropyl) ether	100	U	100	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2,4,5-Trichlorophenol	150	U	150	ug/Kg		04/13/16 07:58	04/15/16 08:46	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-225750/8-A
Matrix: Solid
Analysis Batch: 226080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225750

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	150	U	150		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2,4-Dichlorophenol	150	U	150		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2,4-Dimethylphenol	150	U	150		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2,4-Dinitrophenol	330	U	330		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2,4-Dinitrotoluene	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2,6-Dinitrotoluene	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2-Chloronaphthalene	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2-Chlorophenol	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2-Methylnaphthalene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2-Methylphenol	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2-Nitroaniline	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
2-Nitrophenol	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
3,3'-Dichlorobenzidine	100	U	100		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
3-Nitroaniline	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4,6-Dinitro-2-methylphenol	150	U	150		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4-Bromophenyl phenyl ether	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4-Chloro-3-methylphenol	150	U	150		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4-Chloroaniline	150	U	150		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4-Chlorophenyl phenyl ether	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4-Nitroaniline	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
4-Nitrophenol	330	U	330		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Acenaphthene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Acenaphthylene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Acetophenone	100	U	100		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Anthracene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Atrazine	200	U	200		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Benzaldehyde	100	U	100		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Benzo[a]anthracene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Benzo[a]pyrene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Benzo[b]fluoranthene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Benzo[g,h,i]perylene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Benzo[k]fluoranthene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Bis(2-chloroethoxy)methane	100	U	100		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Bis(2-chloroethyl)ether	100	U	100		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Bis(2-ethylhexyl) phthalate	70	U	70		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Butyl benzyl phthalate	70	U	70		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Caprolactam	330	U	330		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Carbazole	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Chrysene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Dibenz(a,h)anthracene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Dibenzofuran	50	U	50		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Diethyl phthalate	70	U	70		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Dimethyl phthalate	70	U	70		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Di-n-butyl phthalate	70	U	70		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Di-n-octyl phthalate	70	U	70		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Fluoranthene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Fluorene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Hexachlorobenzene	6.7	U	6.7		ug/Kg		04/13/16 07:58	04/15/16 08:46	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-225750/8-A
Matrix: Solid
Analysis Batch: 226080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225750

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Hexachlorocyclopentadiene	330	U	330	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Hexachloroethane	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Indeno[1,2,3-cd]pyrene	6.7	U	6.7	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Isophorone	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Naphthalene	6.7	U	6.7	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Nitrobenzene	100	U	100	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
N-Nitrosodi-n-propylamine	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
N-Nitrosodiphenylamine	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Pentachlorophenol	150	U	150	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Phenol	50	U	50	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Phenanthrene	6.7	U	6.7	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
Pyrene	6.7	U	6.7	ug/Kg		04/13/16 07:58	04/15/16 08:46	1
3 & 4 Methylphenol	400	U	400	ug/Kg		04/13/16 07:58	04/15/16 08:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*24 - 110*	*04/13/16 07:58*	*04/15/16 08:46*	*1*
2-Fluorophenol (Surr)	*65*		*24 - 110*	*04/13/16 07:58*	*04/15/16 08:46*	*1*
2,4,6-Tribromophenol (Surr)	*39*		*10 - 110*	*04/13/16 07:58*	*04/15/16 08:46*	*1*
Nitrobenzene-d5 (Surr)	*68*		*20 - 110*	*04/13/16 07:58*	*04/15/16 08:46*	*1*
Phenol-d5 (Surr)	*74*		*26 - 110*	*04/13/16 07:58*	*04/15/16 08:46*	*1*
Terphenyl-d14 (Surr)	*85*		*36 - 110*	*04/13/16 07:58*	*04/15/16 08:46*	*1*

Lab Sample ID: LCS 240-225750/9-A
Matrix: Solid
Analysis Batch: 226080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225750

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	484		ug/Kg		73	35 - 110
bis (2-chloroisopropyl) ether	667	462		ug/Kg		69	29 - 110
2,4,5-Trichlorophenol	667	430		ug/Kg		65	25 - 110
2,4,6-Trichlorophenol	667	320		ug/Kg		48	12 - 110
2,4-Dichlorophenol	667	478		ug/Kg		72	39 - 110
2,4-Dimethylphenol	667	434		ug/Kg		65	29 - 110
2,4-Dinitrophenol	1330	475		ug/Kg		36	10 - 110
2,4-Dinitrotoluene	667	545		ug/Kg		82	48 - 110
2,6-Dinitrotoluene	667	539		ug/Kg		81	45 - 110
2-Chloronaphthalene	667	495		ug/Kg		74	32 - 110
2-Chlorophenol	667	487		ug/Kg		73	37 - 110
2-Methylnaphthalene	667	489		ug/Kg		73	36 - 110
2-Methylphenol	667	485		ug/Kg		73	41 - 110
2-Nitroaniline	667	530		ug/Kg		80	45 - 110
2-Nitrophenol	667	520		ug/Kg		78	34 - 110
3,3'-Dichlorobenzidine	1330	1210		ug/Kg		91	28 - 110
3-Nitroaniline	667	542		ug/Kg		81	44 - 110
4,6-Dinitro-2-methylphenol	1330	950		ug/Kg		71	10 - 110
4-Bromophenyl phenyl ether	667	609		ug/Kg		91	39 - 110
4-Chloro-3-methylphenol	667	498		ug/Kg		75	48 - 110

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-225750/9-A
Matrix: Solid
Analysis Batch: 226080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225750

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chloroaniline	667	441		ug/Kg		66	30 - 110
4-Chlorophenyl phenyl ether	667	516		ug/Kg		77	40 - 110
4-Nitroaniline	667	496		ug/Kg		74	48 - 110
4-Nitrophenol	1330	898		ug/Kg		67	28 - 110
Acenaphthene	667	489		ug/Kg		73	38 - 110
Acenaphthylene	667	491		ug/Kg		74	40 - 110
Acetophenone	667	459		ug/Kg		69	40 - 110
Anthracene	667	533		ug/Kg		80	48 - 110
Atrazine	1330	1340		ug/Kg		101	54 - 120
Benzaldehyde	1330	900		ug/Kg		67	32 - 110
Benzo[a]anthracene	667	540		ug/Kg		81	50 - 110
Benzo[a]pyrene	667	571		ug/Kg		86	44 - 110
Benzo[b]fluoranthene	667	570		ug/Kg		86	43 - 110
Benzo[g,h,i]perylene	667	504		ug/Kg		76	51 - 110
Benzo[k]fluoranthene	667	597		ug/Kg		90	38 - 105
Bis(2-chloroethoxy)methane	667	497		ug/Kg		75	32 - 110
Bis(2-chloroethyl)ether	667	473		ug/Kg		71	34 - 110
Bis(2-ethylhexyl) phthalate	667	560		ug/Kg		84	50 - 110
Butyl benzyl phthalate	667	551		ug/Kg		83	51 - 110
Caprolactam	1330	1050		ug/Kg		79	44 - 114
Carbazole	667	607		ug/Kg		91	50 - 110
Chrysene	667	550		ug/Kg		82	50 - 110
Dibenz(a,h)anthracene	667	535		ug/Kg		80	51 - 110
Dibenzofuran	667	502		ug/Kg		75	43 - 110
Diethyl phthalate	667	525		ug/Kg		79	52 - 110
Dimethyl phthalate	667	535		ug/Kg		80	50 - 110
Di-n-butyl phthalate	667	644		ug/Kg		97	51 - 110
Di-n-octyl phthalate	667	572		ug/Kg		86	48 - 110
Fluoranthene	667	605		ug/Kg		91	51 - 110
Fluorene	667	509		ug/Kg		76	46 - 110
Hexachlorobenzene	667	584		ug/Kg		88	43 - 110
Hexachlorobutadiene	667	473		ug/Kg		71	29 - 110
Hexachlorocyclopentadiene	667	383		ug/Kg		57	12 - 110
Hexachloroethane	667	436		ug/Kg		65	30 - 110
Indeno[1,2,3-cd]pyrene	667	528		ug/Kg		79	50 - 110
Isophorone	667	479		ug/Kg		72	36 - 110
Naphthalene	667	484		ug/Kg		73	36 - 110
Nitrobenzene	667	484		ug/Kg		73	32 - 110
N-Nitrosodi-n-propylamine	667	469		ug/Kg		70	38 - 110
N-Nitrosodiphenylamine	667	608		ug/Kg		91	46 - 110
Pentachlorophenol	1330	704		ug/Kg		53	10 - 110
Phenol	667	479		ug/Kg		72	38 - 110
Phenanthrene	667	510		ug/Kg		76	49 - 110
Pyrene	667	553		ug/Kg		83	49 - 110
3 & 4 Methylphenol	667	482		ug/Kg		72	40 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*73*		*24 - 110*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-225750/9-A
Matrix: Solid
Analysis Batch: 226080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225750

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*73*		*24 - 110*
2,4,6-Tribromophenol (Surr)	*48*		*10 - 110*
Nitrobenzene-d5 (Surr)	*73*		*20 - 110*
Phenol-d5 (Surr)	*75*		*26 - 110*
Terphenyl-d14 (Surr)	*91*		*36 - 110*

Lab Sample ID: MB 240-225976/11-A
Matrix: Solid
Analysis Batch: 226307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225976

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
Pyridine	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
2,4-Dinitrotoluene	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
2-Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
Hexachlorobenzene	0.00080	U	0.00080	mg/L		04/14/16 10:48	04/18/16 11:46	1
Hexachlorobutadiene	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
Hexachloroethane	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
Nitrobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1
Pentachlorophenol	0.016	U	0.016	mg/L		04/14/16 10:48	04/18/16 11:46	1
3 & 4 Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:48	04/18/16 11:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*86*		*30 - 110*	*04/14/16 10:48*	*04/18/16 11:46*	*1*
2-Fluorophenol (Surr)	*49*		*20 - 110*	*04/14/16 10:48*	*04/18/16 11:46*	*1*
2,4,6-Tribromophenol (Surr)	*55*		*23 - 110*	*04/14/16 10:48*	*04/18/16 11:46*	*1*
Nitrobenzene-d5 (Surr)	*77*		*28 - 110*	*04/14/16 10:48*	*04/18/16 11:46*	*1*
Phenol-d5 (Surr)	*44*		*21 - 110*	*04/14/16 10:48*	*04/18/16 11:46*	*1*
Terphenyl-d14 (Surr)	*86*		*48 - 110*	*04/14/16 10:48*	*04/18/16 11:46*	*1*

Lab Sample ID: LCS 240-225976/12-A
Matrix: Solid
Analysis Batch: 226307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0800	0.0492		mg/L		62	52 - 110
2,4,5-Trichlorophenol	0.0800	0.0615		mg/L		77	51 - 110
2,4,6-Trichlorophenol	0.0800	0.0603		mg/L		75	46 - 110
Pyridine	0.0800	0.0414		mg/L		52	30 - 110
2,4-Dinitrotoluene	0.0800	0.0722		mg/L		90	54 - 110
2-Methylphenol	0.0800	0.0523		mg/L		65	44 - 111
Hexachlorobenzene	0.0800	0.0551		mg/L		69	50 - 110
Hexachlorobutadiene	0.0800	0.0449		mg/L		56	34 - 110
Hexachloroethane	0.0800	0.0484		mg/L		60	41 - 110
Nitrobenzene	0.0800	0.0569		mg/L		71	40 - 110
Pentachlorophenol	0.160	0.105		mg/L		65	12 - 110

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-225976/12-A
Matrix: Solid
Analysis Batch: 226307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3 & 4 Methylphenol	0.0800	0.0483		mg/L		60	48 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*76*		*30 - 110*
2-Fluorophenol (Surr)	*54*		*20 - 110*
2,4,6-Tribromophenol (Surr)	*75*		*23 - 110*
Nitrobenzene-d5 (Surr)	*66*		*28 - 110*
Phenol-d5 (Surr)	*47*		*21 - 110*
Terphenyl-d14 (Surr)	*84*		*48 - 110*

Lab Sample ID: MB 240-225977/6-A
Matrix: Solid
Analysis Batch: 226287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225977

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
Pyridine	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
2,4-Dinitrotoluene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
2-Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
Hexachlorobenzene	0.00080	U	0.00080	mg/L		04/14/16 10:52	04/18/16 09:12	1
Hexachlorobutadiene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
Hexachloroethane	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
Nitrobenzene	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1
Pentachlorophenol	0.016	U	0.016	mg/L		04/14/16 10:52	04/18/16 09:12	1
3 & 4 Methylphenol	0.0040	U	0.0040	mg/L		04/14/16 10:52	04/18/16 09:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*30 - 110*	*04/14/16 10:52*	*04/18/16 09:12*	*1*
2-Fluorophenol (Surr)	*60*		*20 - 110*	*04/14/16 10:52*	*04/18/16 09:12*	*1*
2,4,6-Tribromophenol (Surr)	*71*		*23 - 110*	*04/14/16 10:52*	*04/18/16 09:12*	*1*
Nitrobenzene-d5 (Surr)	*66*		*28 - 110*	*04/14/16 10:52*	*04/18/16 09:12*	*1*
Phenol-d5 (Surr)	*54*		*21 - 110*	*04/14/16 10:52*	*04/18/16 09:12*	*1*
Terphenyl-d14 (Surr)	*94*		*48 - 110*	*04/14/16 10:52*	*04/18/16 09:12*	*1*

Lab Sample ID: LCS 240-225977/7-A
Matrix: Solid
Analysis Batch: 226287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0800	0.0451		mg/L		56	52 - 110
2,4,5-Trichlorophenol	0.0800	0.0533		mg/L		67	51 - 110
2,4,6-Trichlorophenol	0.0800	0.0546		mg/L		68	46 - 110
Pyridine	0.0800	0.0390		mg/L		49	30 - 110
2,4-Dinitrotoluene	0.0800	0.0664		mg/L		83	54 - 110
2-Methylphenol	0.0800	0.0493		mg/L		62	44 - 111
Hexachlorobenzene	0.0800	0.0648		mg/L		81	50 - 110

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-225977/7-A
Matrix: Solid
Analysis Batch: 226287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	0.0800	0.0486		mg/L		61	34 - 110
Hexachloroethane	0.0800	0.0454		mg/L		57	41 - 110
Nitrobenzene	0.0800	0.0505		mg/L		63	40 - 110
Pentachlorophenol	0.160	0.107		mg/L		67	12 - 110
3 & 4 Methylphenol	0.0800	0.0465		mg/L		58	48 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*64*		*30 - 110*
2-Fluorophenol (Surr)	*45*		*20 - 110*
2,4,6-Tribromophenol (Surr)	*75*		*23 - 110*
Nitrobenzene-d5 (Surr)	*62*		*28 - 110*
Phenol-d5 (Surr)	*41*		*21 - 110*
Terphenyl-d14 (Surr)	*82*		*48 - 110*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-225544/20-A
Matrix: Solid
Analysis Batch: 226388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225544

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1
Aroclor-1221	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1
Aroclor-1232	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1
Aroclor-1242	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1
Aroclor-1248	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1
Aroclor-1254	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1
Aroclor-1260	33	U	33	ug/Kg		04/12/16 07:49	04/18/16 23:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*13 - 134*	*04/12/16 07:49*	*04/18/16 23:17*	*1*
DCB Decachlorobiphenyl	*72*		*10 - 155*	*04/12/16 07:49*	*04/18/16 23:17*	*1*

Lab Sample ID: LCS 240-225544/21-A
Matrix: Solid
Analysis Batch: 226388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225544

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	333	208		ug/Kg		62	51 - 120
Aroclor-1260	333	237		ug/Kg		71	48 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*69*		*13 - 134*
DCB Decachlorobiphenyl	*73*		*10 - 155*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 240-63312-12 MS — **Client Sample ID: SE-040816-JN-050**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226388 — **Prep Batch: 225544**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	7300	U F2	726	24600		ug/Kg	☼	NC	17 - 141
Aroclor-1260	7300	U	726	7200	U	ug/Kg	☼	NC	19 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*224*	*X*	*13 - 134*
DCB Decachlorobiphenyl	*293*	*X*	*10 - 155*

Lab Sample ID: 240-63312-12 MSD — **Client Sample ID: SE-040816-JN-050**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226388 — **Prep Batch: 225544**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor-1016	7300	U F2	731	130000	F2	ug/Kg	☼	NC	17 - 141	136	56
Aroclor-1260	7300	U	731	7200	U	ug/Kg	☼	NC	19 - 137	NC	55

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*272*	*X*	*13 - 134*
DCB Decachlorobiphenyl	*24*		*10 - 155*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-225826/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226077 — **Prep Batch: 225826**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	20	U	20	mg/Kg		04/13/16 11:54	04/14/16 17:50	1
Cadmium	0.20	U	0.20	mg/Kg		04/13/16 11:54	04/14/16 17:50	1
Chromium	0.50	U	0.50	mg/Kg		04/13/16 11:54	04/14/16 17:50	1
Arsenic	1.0	U	1.0	mg/Kg		04/13/16 11:54	04/14/16 17:50	1
Lead	0.30	U	0.30	mg/Kg		04/13/16 11:54	04/14/16 17:50	1
Selenium	0.50	U	0.50	mg/Kg		04/13/16 11:54	04/14/16 17:50	1
Silver	0.50	U	0.50	mg/Kg		04/13/16 11:54	04/14/16 17:50	1

Lab Sample ID: LCS 240-225826/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226077 — **Prep Batch: 225826**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	200	189		mg/Kg		94	80 - 120
Cadmium	5.00	4.69		mg/Kg		94	80 - 120
Chromium	20.0	19.6		mg/Kg		98	80 - 120
Arsenic	200	191		mg/Kg		95	80 - 120
Lead	50.0	45.7		mg/Kg		91	80 - 120
Selenium	200	194		mg/Kg		97	80 - 120
Silver	5.00	4.80		mg/Kg		96	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 240-63312-14 MS — **Client Sample ID: SE-040816-JN-052**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226077 — **Prep Batch: 225826**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	81		386	418		mg/Kg	☼	87	75 - 125
Cadmium	1.7		9.66	10.1		mg/Kg	☼	86	75 - 125
Chromium	30		38.6	64.1		mg/Kg	☼	89	75 - 125
Arsenic	8.8		386	338		mg/Kg	☼	85	75 - 125
Lead	74	F1	96.6	145	F1	mg/Kg	☼	74	75 - 125
Selenium	0.98	U	386	332		mg/Kg	☼	86	75 - 125
Silver	5.1		9.66	15.2		mg/Kg	☼	105	75 - 125

Lab Sample ID: 240-63312-14 MSD — **Client Sample ID: SE-040816-JN-052**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226077 — **Prep Batch: 225826**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	81		386	417		mg/Kg	☼	87	75 - 125	0	20
Cadmium	1.7		9.66	9.92		mg/Kg	☼	85	75 - 125	1	20
Chromium	30		38.6	66.7		mg/Kg	☼	96	75 - 125	4	20
Arsenic	8.8		386	340		mg/Kg	☼	86	75 - 125	1	20
Lead	74	F1	96.6	146	F1	mg/Kg	☼	74	75 - 125	0	20
Selenium	0.98	U	386	320		mg/Kg	☼	83	75 - 125	4	20
Silver	5.1		9.66	13.7		mg/Kg	☼	89	75 - 125	11	20

Lab Sample ID: MB 240-225985/2-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226155 — **Prep Batch: 225985**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	10	U	10	mg/L		04/14/16 11:14	04/15/16 14:35	1
Cadmium	0.10	U	0.10	mg/L		04/14/16 11:14	04/15/16 14:35	1
Chromium	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:35	1
Arsenic	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:35	1
Lead	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:35	1
Selenium	0.25	U	0.25	mg/L		04/14/16 11:14	04/15/16 14:35	1
Silver	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:35	1

Lab Sample ID: LCS 240-225985/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226155 — **Prep Batch: 225985**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.07	J	mg/L		104	50 - 150
Cadmium	0.0500	0.0550	J	mg/L		110	50 - 150
Chromium	0.200	0.212	J	mg/L		106	50 - 150
Arsenic	2.00	2.27		mg/L		113	50 - 150
Lead	0.500	0.476	J	mg/L		95	50 - 150
Selenium	2.00	2.36		mg/L		118	50 - 150
Silver	0.0500	0.0572	J	mg/L		114	50 - 150

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 240-225989/2-A
Matrix: Solid
Analysis Batch: 226155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225989

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	10	U	10	mg/L		04/14/16 11:40	04/15/16 15:56	1
Cadmium	0.10	U	0.10	mg/L		04/14/16 11:40	04/15/16 15:56	1
Chromium	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:56	1
Arsenic	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:56	1
Lead	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:56	1
Selenium	0.25	U	0.25	mg/L		04/14/16 11:40	04/15/16 15:56	1
Silver	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:56	1

Lab Sample ID: LCS 240-225989/3-A
Matrix: Solid
Analysis Batch: 226155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225989

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.04	J	mg/L		102	50 - 150
Cadmium	0.0500	0.0516	J	mg/L		103	50 - 150
Chromium	0.200	0.206	J	mg/L		103	50 - 150
Arsenic	2.00	2.11		mg/L		106	50 - 150
Lead	0.500	0.494	J	mg/L		99	50 - 150
Selenium	2.00	2.21		mg/L		111	50 - 150
Silver	0.0500	0.0516	J	mg/L		103	50 - 150

Lab Sample ID: LB 240-225959/1-B
Matrix: Solid
Analysis Batch: 226155

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 225985

Analyte	LB Result	LB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	10	U	10	mg/L		04/14/16 11:14	04/15/16 14:30	1
Cadmium	0.10	U	0.10	mg/L		04/14/16 11:14	04/15/16 14:30	1
Chromium	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:30	1
Arsenic	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:30	1
Lead	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:30	1
Selenium	0.25	U	0.25	mg/L		04/14/16 11:14	04/15/16 14:30	1
Silver	0.50	U	0.50	mg/L		04/14/16 11:14	04/15/16 14:30	1

Lab Sample ID: LB 240-225955/1-B
Matrix: Solid
Analysis Batch: 226155

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 225989

Analyte	LB Result	LB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	10	U	10	mg/L		04/14/16 11:40	04/15/16 15:51	1
Cadmium	0.10	U	0.10	mg/L		04/14/16 11:40	04/15/16 15:51	1
Chromium	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:51	1
Arsenic	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:51	1
Lead	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:51	1
Selenium	0.25	U	0.25	mg/L		04/14/16 11:40	04/15/16 15:51	1
Silver	0.50	U	0.50	mg/L		04/14/16 11:40	04/15/16 15:51	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 240-63312-15 MS — **Client Sample ID: SE-040816-JN-053**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 226155 — **Prep Batch: 225989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	10	U	50.0	53.7		mg/L		106	75 - 125
Cadmium	0.10	U	1.00	1.09		mg/L		108	75 - 125
Chromium	0.50	U	5.00	5.23		mg/L		104	75 - 125
Arsenic	0.50	U	5.00	5.47		mg/L		109	75 - 125
Lead	0.50	U	5.00	5.36		mg/L		103	75 - 125
Selenium	0.25	U	1.00	1.3	U	mg/L		112	75 - 125
Silver	0.50	U	1.00	2.5	U	mg/L		110	75 - 125

Lab Sample ID: 240-63312-15 MSD — **Client Sample ID: SE-040816-JN-053**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 226155 — **Prep Batch: 225989**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	10	U	50.0	51.7		mg/L		102	75 - 125	4	20
Cadmium	0.10	U	1.00	1.06		mg/L		104	75 - 125	4	20
Chromium	0.50	U	5.00	5.03		mg/L		100	75 - 125	4	20
Arsenic	0.50	U	5.00	5.25		mg/L		105	75 - 125	4	20
Lead	0.50	U	5.00	5.16		mg/L		99	75 - 125	4	20
Selenium	0.25	U	1.00	1.3	U	mg/L		108	75 - 125	3	20
Silver	0.50	U	1.00	2.5	U	mg/L		105	75 - 125	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-225987/2-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226284 — **Prep Batch: 225987**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020		mg/L		04/14/16 14:00	04/15/16 12:05	1

Lab Sample ID: LCS 240-225987/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226284 — **Prep Batch: 225987**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury			0.00500	0.00523		mg/L		105	80 - 120

Lab Sample ID: MB 240-225991/2-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226284 — **Prep Batch: 225991**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020		mg/L		04/14/16 14:00	04/15/16 11:46	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-225991/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226284 — **Prep Batch: 225991**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00531		mg/L		106	80 - 120

Lab Sample ID: LB 240-225959/1-C — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 226284 — **Prep Batch: 225987**

Analyte	LB Result	LB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	mg/L		04/14/16 14:00	04/15/16 12:12	1

Lab Sample ID: LB 240-225955/1-C — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 226284 — **Prep Batch: 225991**

Analyte	LB Result	LB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	mg/L		04/14/16 14:00	04/15/16 11:48	1

Lab Sample ID: 240-63312-15 MS — **Client Sample ID: SE-040816-JN-053**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 226284 — **Prep Batch: 225991**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0020	U	0.00500	0.00506		mg/L		101	80 - 120

Lab Sample ID: 240-63312-15 MSD — **Client Sample ID: SE-040816-JN-053**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 226284 — **Prep Batch: 225991**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0020	U	0.00500	0.00515		mg/L		103	80 - 120	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 240-225834/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225925 — **Prep Batch: 225834**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10	U	0.10	mg/Kg		04/13/16 15:00	04/14/16 07:38	1

Lab Sample ID: LCS 240-225834/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225925 — **Prep Batch: 225834**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.850		mg/Kg		102	80 - 120

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-63312-14 MS — **Client Sample ID: SE-040816-JN-052**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225925 — **Prep Batch: 225834**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.19	U	0.370	0.572		mg/Kg	☼	115	80 - 120		

Lab Sample ID: 240-63312-14 MSD — **Client Sample ID: SE-040816-JN-052**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225925 — **Prep Batch: 225834**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.19	U	0.370	0.529		mg/Kg	☼	103	80 - 120	8	20

Method: Moisture - Percent Moisture

Lab Sample ID: 240-63312-1 DU — **Client Sample ID: SE-040816-JN-039**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225417

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	45.8			46.3		%				0.9	20
Percent Moisture	54.2			53.7		%				0.8	20

Lab Sample ID: 240-63312-10 DU — **Client Sample ID: SE-040816-JN-048**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225417

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	46.4			48.7		%				5	20
Percent Moisture	53.6			51.3		%				4	20

Lab Sample ID: 240-63312-12 DU — **Client Sample ID: SE-040816-JN-050**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225417

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	45.5			50.3		%				10	20
Percent Moisture	54.5			49.7		%				9	20

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(58-123)	(52-136)	(67-125)	(37-132)
240-63312-14	SE-040816-JN-052	106	112 *	100	98
240-63312-15	SE-040816-JN-053	109	142 * X	107	97
240-63312-16	SE-040816-JN-054	102	142 * X	108	95
240-63312-16 MS	SE-040816-JN-054	105	107	96	99
240-63312-16 MSD	SE-040816-JN-054	104	110	99	101
LCS 240-225767/5	Lab Control Sample	105	95	95	100
MB 240-225767/6	Method Blank	108	91	94	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(80-121)	(70-124)	(80-120)	(80-128)
LCS 240-226030/11	Lab Control Sample	97	100	101	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(80-121)	(70-124)	(80-120)	(80-128)
240-63312-14	SE-040816-JN-052	101	100	101	109
240-63312-15	SE-040816-JN-053	94	93	97	102
240-63312-16	SE-040816-JN-054	99	94	100	103
LB 240-225954/1-A MB	Method Blank	93	85	95	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(24-110)	(24-110)	(10-110)	(20-110)	(26-110)	(36-110)
240-63312-14	SE-040816-JN-052	80	78	86	74	82	89
240-63312-15	SE-040816-JN-053	75	74	72	77	78	81
240-63312-16	SE-040816-JN-054	84	82	85	82	88	94
LCS 240-225750/9-A	Lab Control Sample	73	73	48	73	75	91
MB 240-225750/8-A	Method Blank	72	65	39	68	74	85

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(30-110)	(20-110)	(23-110)	(28-110)	(21-110)	(48-110)
LCS 240-225976/12-A	Lab Control Sample	76	54	75	66	47	84
LCS 240-225977/7-A	Lab Control Sample	64	45	75	62	41	82
MB 240-225976/11-A	Method Blank	86	49	55	77	44	86
MB 240-225977/6-A	Method Blank	75	60	71	66	54	94

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(30-110)	(20-110)	(23-110)	(28-110)	(21-110)	(48-110)
240-63312-14	SE-040816-JN-052	83	74	84	78	68	116 X
240-63312-15	SE-040816-JN-053	68	56	76	63	55	80
240-63312-16	SE-040816-JN-054	77	64	87	69	66	93

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	TCX2 (13-134)	DCB2 (10-155)								
240-63312-1	SE-040816-JN-039	218 X	223 X								
240-63312-2	SE-040816-JN-040	146 X	160 X								
240-63312-3	SE-040816-JN-041	118	52								
240-63312-4	SE-040816-JN-042	131	198 X								
240-63312-5	SE-040816-JN-043	180 X	256 X								
240-63312-6	SE-040816-JN-044	157 X	258 X								
240-63312-7	SE-040816-JN-045	99	111								
240-63312-8	SE-040816-JN-046	119	131								
240-63312-9	SE-040816-JN-047	83	103								
240-63312-10	SE-040816-JN-048	87	118								
240-63312-11	SE-040816-JN-049	159 X	228 X								
240-63312-12	SE-040816-JN-050	245 X	346 X								
240-63312-12 MS	SE-040816-JN-050	224 X	293 X								
240-63312-12 MSD	SE-040816-JN-050	272 X	24								
240-63312-14	SE-040816-JN-052	803 X	1647 X								
240-63312-15	SE-040816-JN-053	231 X	212 X								
240-63312-16	SE-040816-JN-054	324 X	126								
LCS 240-225544/21-A	Lab Control Sample	69	73								
MB 240-225544/20-A	Method Blank	63	72								

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-039 — Lab Sample ID: 240-63312-1

Date Collected: 04/08/16 09:05 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-039 — Lab Sample ID: 240-63312-1

Date Collected: 04/08/16 09:05 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 45.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		100	226388	04/18/16 18:25	LSH	TAL CAN

Client Sample ID: SE-040816-JN-040 — Lab Sample ID: 240-63312-2

Date Collected: 04/08/16 09:15 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-040 — Lab Sample ID: 240-63312-2

Date Collected: 04/08/16 09:15 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 47.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		20	226388	04/18/16 18:43	LSH	TAL CAN

Client Sample ID: SE-040816-JN-041 — Lab Sample ID: 240-63312-3

Date Collected: 04/08/16 09:20 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-041 — Lab Sample ID: 240-63312-3

Date Collected: 04/08/16 09:20 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 44.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		20	226388	04/18/16 19:01	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-042 — Lab Sample ID: 240-63312-4

Date Collected: 04/08/16 09:40 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-042 — Lab Sample ID: 240-63312-4

Date Collected: 04/08/16 09:40 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 47.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		50	226388	04/18/16 19:20	LSH	TAL CAN

Client Sample ID: SE-040816-JN-043 — Lab Sample ID: 240-63312-5

Date Collected: 04/08/16 09:45 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-043 — Lab Sample ID: 240-63312-5

Date Collected: 04/08/16 09:45 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 51.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		50	226388	04/18/16 19:38	LSH	TAL CAN

Client Sample ID: SE-040816-JN-044 — Lab Sample ID: 240-63312-6

Date Collected: 04/08/16 09:50 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-044 — Lab Sample ID: 240-63312-6

Date Collected: 04/08/16 09:50 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 49.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		50	226388	04/18/16 19:56	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-045 — Lab Sample ID: 240-63312-7

Date Collected: 04/08/16 10:25 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-045 — Lab Sample ID: 240-63312-7

Date Collected: 04/08/16 10:25 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 48.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		20	226388	04/18/16 20:14	LSH	TAL CAN

Client Sample ID: SE-040816-JN-046 — Lab Sample ID: 240-63312-8

Date Collected: 04/08/16 10:40 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-046 — Lab Sample ID: 240-63312-8

Date Collected: 04/08/16 10:40 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 49.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		20	226388	04/18/16 20:33	LSH	TAL CAN

Client Sample ID: SE-040816-JN-047 — Lab Sample ID: 240-63312-9

Date Collected: 04/08/16 11:10 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-047 — Lab Sample ID: 240-63312-9

Date Collected: 04/08/16 11:10 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 48.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		20	226388	04/18/16 20:51	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-048 — Lab Sample ID: 240-63312-10

Date Collected: 04/08/16 11:20 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-048 — Lab Sample ID: 240-63312-10

Date Collected: 04/08/16 11:20 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 46.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		20	226388	04/18/16 21:09	LSH	TAL CAN

Client Sample ID: SE-040816-JN-049 — Lab Sample ID: 240-63312-11

Date Collected: 04/08/16 11:25 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-049 — Lab Sample ID: 240-63312-11

Date Collected: 04/08/16 11:25 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 51.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		50	226388	04/18/16 21:27	LSH	TAL CAN

Client Sample ID: SE-040816-JN-050 — Lab Sample ID: 240-63312-12

Date Collected: 04/08/16 13:35 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-050 — Lab Sample ID: 240-63312-12

Date Collected: 04/08/16 13:35 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 45.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		100	226388	04/18/16 21:46	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-051 — Lab Sample ID: 240-63312-13

Date Collected: 04/08/16 13:45 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	103373	04/12/16 18:27	VTP	TAL BUR

Client Sample ID: SE-040816-JN-052 — Lab Sample ID: 240-63312-14

Date Collected: 04/08/16 14:40 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			225954	04/13/16 21:10	DRJ	TAL CAN
TCLP	Analysis	8260B		1	226030	04/15/16 00:04	TJL1	TAL CAN
TCLP	Leach	1311			225959	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	3510C			225976	04/14/16 10:48	JDR	TAL CAN
TCLP	Analysis	8270C		1	226307	04/18/16 14:11	JMG	TAL CAN
TCLP	Leach	1311			225959	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	3010A			225985	04/14/16 11:14	WKD	TAL CAN
TCLP	Analysis	6010B		1	226155	04/15/16 15:43	RKT	TAL CAN
TCLP	Leach	1311			225959	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	7470A			225987	04/14/16 14:00	WKD	TAL CAN
TCLP	Analysis	7470A		1	226284	04/15/16 12:43	DSH	TAL CAN
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-052 — Lab Sample ID: 240-63312-14

Date Collected: 04/08/16 14:40 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 47.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			225818	04/13/16 11:38	SAM	TAL CAN
Total/NA	Analysis	8260B		1	225767	04/13/16 12:51	SAM	TAL CAN
Total/NA	Prep	3540C			225750	04/13/16 07:58	SDE	TAL CAN
Total/NA	Analysis	8270C		5	226468	04/19/16 18:46	MRU	TAL CAN
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		500	226388	04/18/16 22:40	LSH	TAL CAN
Total/NA	Prep	3050B			225826	04/13/16 11:54	DEE	TAL CAN
Total/NA	Analysis	6010B		1	226077	04/14/16 17:58	RKT	TAL CAN
Total/NA	Prep	7471A			225834	04/13/16 15:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	225925	04/14/16 07:42	DSH	TAL CAN

Client Sample ID: SE-040816-JN-053 — Lab Sample ID: 240-63312-15

Date Collected: 04/08/16 14:45 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			225954	04/13/16 21:10	DRJ	TAL CAN
TCLP	Analysis	8260B		1	226030	04/15/16 00:27	TJL1	TAL CAN

Client Sample ID: SE-040816-JN-053 — Lab Sample ID: 240-63312-15

Date Collected: 04/08/16 14:45 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			225955	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	3510C			225977	04/14/16 10:52	CS	TAL CAN
TCLP	Analysis	8270C		1	226287	04/18/16 12:14	MRU	TAL CAN
TCLP	Leach	1311			225955	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	3010A			225989	04/14/16 11:40	WKD	TAL CAN
TCLP	Analysis	6010B		1	226155	04/15/16 16:12	RKT	TAL CAN
TCLP	Leach	1311			225955	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	7470A			225991	04/14/16 14:00	WKD	TAL CAN
TCLP	Analysis	7470A		1	226284	04/15/16 11:52	DSH	TAL CAN
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Client Sample ID: SE-040816-JN-053 — Lab Sample ID: 240-63312-15

Date Collected: 04/08/16 14:45 — **Matrix: Solid**
Date Received: 04/09/16 09:30 — **Percent Solids: 46.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			225818	04/13/16 11:38	SAM	TAL CAN
Total/NA	Analysis	8260B		1	225767	04/13/16 13:12	SAM	TAL CAN
Total/NA	Prep	3540C			225750	04/13/16 07:58	SDE	TAL CAN
Total/NA	Analysis	8270C		5	226080	04/15/16 19:10	MRU	TAL CAN
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		100	226388	04/18/16 22:59	LSH	TAL CAN
Total/NA	Prep	3050B			225826	04/13/16 11:54	DEE	TAL CAN
Total/NA	Analysis	6010B		1	226077	04/14/16 18:17	RKT	TAL CAN
Total/NA	Prep	7471A			225834	04/13/16 15:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	225925	04/14/16 07:48	DSH	TAL CAN

Client Sample ID: SE-040816-JN-054 — Lab Sample ID: 240-63312-16

Date Collected: 04/08/16 14:50 — **Matrix: Solid**
Date Received: 04/09/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			225954	04/13/16 21:10	DRJ	TAL CAN
TCLP	Analysis	8260B		1	226030	04/15/16 00:51	TJL1	TAL CAN
TCLP	Leach	1311			225955	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	3510C			225977	04/14/16 10:52	CS	TAL CAN
TCLP	Analysis	8270C		1	226287	04/18/16 12:40	MRU	TAL CAN
TCLP	Leach	1311			225955	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	3010A			225989	04/14/16 11:40	WKD	TAL CAN
TCLP	Analysis	6010B		1	226155	04/15/16 16:37	RKT	TAL CAN
TCLP	Leach	1311			225955	04/13/16 17:40	DRJ	TAL CAN
TCLP	Prep	7470A			225991	04/14/16 14:00	WKD	TAL CAN
TCLP	Analysis	7470A		1	226284	04/15/16 12:01	DSH	TAL CAN
Total/NA	Analysis	Moisture		1	225417	04/11/16 11:26	JMB	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Client Sample ID: SE-040816-JN-054

Date Collected: 04/08/16 14:50
Date Received: 04/09/16 09:30

Lab Sample ID: 240-63312-16

Matrix: Solid
Percent Solids: 45.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030A			225818	04/13/16 11:38	SAM	TAL CAN
Total/NA	Analysis	8260B		1	225767	04/13/16 14:40	SAM	TAL CAN
Total/NA	Prep	3540C			225750	04/13/16 07:58	SDE	TAL CAN
Total/NA	Analysis	8270C		5	226468	04/19/16 19:11	MRU	TAL CAN
Total/NA	Prep	3540C			225544	04/12/16 07:49	SDE	TAL CAN
Total/NA	Analysis	8082		100	226388	04/19/16 00:12	LSH	TAL CAN
Total/NA	Prep	3050B			225826	04/13/16 11:54	DEE	TAL CAN
Total/NA	Analysis	6010B		1	226077	04/14/16 18:30	RKT	TAL CAN
Total/NA	Prep	7471A			225834	04/13/16 15:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	225925	04/14/16 07:51	DSH	TAL CAN

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63312-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16 *
Illinois	NELAP	5	200004	07-31-16 *
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16 *
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-17
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-17
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-17
Florida	NELAP	4	E87467	06-30-16
L-A-B	DoD ELAP		L2336	02-26-17
Maine	State Program	1	VT00008	04-17-17
Minnesota	NELAP	5	050-999-436	12-31-16
New Hampshire	NELAP	1	2006	12-18-16
New Jersey	NELAP	2	VT972	06-30-16
New York	NELAP	2	10391	04-01-17 *
Pennsylvania	NELAP	3	68-00489	04-30-16 *
Rhode Island	State Program	1	LAO00298	12-30-16
US Fish & Wildlife	Federal		LE-058448-0	10-31-16
USDA	Federal		P330-11-00093	10-28-16
Vermont	State Program	1	VT-4000	12-31-16
Virginia	NELAP	3	460209	12-14-16

* Certification renewal pending - certification considered valid.

TestAmerica

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TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-63312 Chain of Custody

GM BEAM ENCORE

1.4/C0.9

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 1 OF 1

☐ eCOC in Use

ID: # C#20160408_145549

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Preservative

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	/PCBs, Total	/Grain Size	/Metals, TCLP	/PCBs, TCLP	/SVOCs, TCLP	/VOCs, TCLP	/Metals, Total	/SVOCs, Total	/VOCs, Total	Remarks/Lab ID
1	SE-040816-JN-039	SE	04/08/16	9:05	1	X									
2	SE-040816-JN-040	SE	04/08/16	9:15	1	X									
3	SE-040816-JN-041	SE	04/08/16	9:20	1	X									
4	SE-040816-JN-042	SE	04/08/16	9:40	1	X									
5	SE-040816-JN-043	SE	04/08/16	9:45	1	X									
6	SE-040816-JN-044	SE	04/08/16	9:50	1	X									
7	SE-040816-JN-045	SE	04/08/16	10:25	1	X									
8	SE-040816-JN-046	SE	04/08/16	10:40	1	X									
9	SE-040816-JN-047	SE	04/08/16	11:10	1	X									
10	SE-040816-JN-048	SE	04/08/16	11:20	1	X									
11	SE-040816-JN-049	SE	04/08/16	11:25	1	X									
12	SE-040816-JN-050	SE	04/08/16	13:35	2	X									MS/MSD
13	SE-040816-JN-051	SE	04/08/16	13:45	1		X								
14	SE-040816-JN-052	SE	04/08/16	14:40	1	X		X	X	X	X	X	X	X	
15	SE-040816-JN-053	SE	04/08/16	14:45	1	X		X	X	X	X	X	X	X	
16	SE-040816-JN-054	SE	04/08/16	14:50	1	X		X	X	X	X	X	X	X	
17															
18															
	TOTAL NUMBER OF CONTAINERS				17										

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	1	Jeff Nichols / GHD	04/08/16	16:00		4-9-16	930
AIRBILL NO: 8682 8736 4770							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Fully Executed Copy

Sampler Name: Jeffrey M. Nichols

Sampler Signature: Date: 04/08/16

REV. 0 (9/04)

4/21/2016

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 603312**
Canton Facility

Client GHD Site Name _____ Cooler unpacked by:

Cooler Received on 4.9.16 Opened on 4.9.16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 0.9 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. ~~Sufficient quantity received to perform indicated analyses?~~ ~~Yes No~~
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-63312-1

Login Number: 63312
List Number: 2
Creator: Lavigne III, Scott M

List Source: TestAmerica Burlington
List Creation: 04/12/16 02:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-63371-1
Client Project/Site: 13968, GM Bedford, SSOW# E117018-002

For:
GHD Services Inc.
14496 Sheldon Road, Suite 200
Plymouth, Michigan 48170

Attn: Rawa Fleisher

Denise D Heckler

Authorized for release by:
4/22/2016 3:03:56 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 240-63371-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-63371-1

Comments
No additional comments.

Receipt
The samples were received on 4/12/2016 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.3º C and 0.9º C.

GC Semi VOA
Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SO-040916-JN-056 (240-63371-2), SO-040916-JN-058 (240-63371-4), SO-040916-JN-059 (240-63371-5), SO-040916-JN-060 (240-63371-6), SO-040916-JN-061 (240-63371-7), SO-040916-JN-063 (240-63371-9), SO-040916-JN-065 (240-63371-11), SO-040916-JN-066 (240-63371-12), SO-040916-JN-067 (240-63371-14), SO-040916-JN-068 (240-63371-15), SO-040916-JN-068 (240-63371-15[MS]), SO-040916-JN-068 (240-63371-15[MSD]), SO-040916-JN-069 (240-63371-16), SO-040916-JN-070 (240-63371-17) and SO-040916-JN-071 (240-63371-18). 2460608, 2103100, 2283703.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SO-040916-JN-056 (240-63371-2), SO-040916-JN-057 (240-63371-3), SO-040916-JN-058 (240-63371-4), SO-040916-JN-059 (240-63371-5), SO-040916-JN-060 (240-63371-6), SO-040916-JN-061 (240-63371-7), SO-040916-JN-062 (240-63371-8), SO-040916-JN-063 (240-63371-9), SO-040916-JN-064 (240-63371-10), SO-040916-JN-065 (240-63371-11), SO-040916-JN-066 (240-63371-12), SO-040916-JN-067 (240-63371-14), SO-040916-JN-068 (240-63371-15), SO-040916-JN-068 (240-63371-15[MS]), SO-040916-JN-068 (240-63371-15[MSD]), SO-040916-JN-069 (240-63371-16), SO-040916-JN-070 (240-63371-17) and SO-040916-JN-071 (240-63371-18). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: EB-040916-JN-002 (240-63371-25) and EB-040916-JN-003 (240-63371-31). 2460608, 2103100, 2283703.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SO-040916-JN-077 (240-63371-24), SO-040916-JN-078 (240-63371-26) and SO-040916-JN-080 (240-63371-28). 2460608, 2103100, 2283703.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SO-040916-JN-077 (240-63371-24), SO-040916-JN-078 (240-63371-26) and SO-040916-JN-080 (240-63371-28). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: SO-040916-JN-076 (240-63371-23), SO-040916-JN-079 (240-63371-27) and SO-040916-JN-081 (240-63371-29). 2485537, 2103100, 2283703.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SO-040916-JN-076 (240-63371-23), SO-040916-JN-079 (240-63371-27), SO-040916-JN-081 (240-63371-29) and SO-040916-JN-082 (240-63371-30). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method(s) 8082: Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SO-040916-JN-074 (240-63371-21). These results have been reported and qualified.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by

Job ID: 240-63371-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

sulfur: SO-040916-JN-072 (240-63371-19), SO-040916-JN-073 (240-63371-20), SO-040916-JN-074 (240-63371-21) and SO-040916-JN-075 (240-63371-22). 2485537, 2103100, 2283703.

Method(s) 8082: The following samples appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: SO-040916-JN-072 (240-63371-19), SO-040916-JN-073 (240-63371-20), SO-040916-JN-074 (240-63371-21) and SO-040916-JN-075 (240-63371-22). Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Geotechnical
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-225724.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-63371-1	SE-040916-JN-055	Solid	04/09/16 10:15	04/12/16 09:45
240-63371-2	SO-040916-JN-056	Solid	04/09/16 11:10	04/12/16 09:45
240-63371-3	SO-040916-JN-057	Solid	04/09/16 11:20	04/12/16 09:45
240-63371-4	SO-040916-JN-058	Solid	04/09/16 12:20	04/12/16 09:45
240-63371-5	SO-040916-JN-059	Solid	04/09/16 12:25	04/12/16 09:45
240-63371-6	SO-040916-JN-060	Solid	04/09/16 12:35	04/12/16 09:45
240-63371-7	SO-040916-JN-061	Solid	04/09/16 12:40	04/12/16 09:45
240-63371-8	SO-040916-JN-062	Solid	04/09/16 12:45	04/12/16 09:45
240-63371-9	SO-040916-JN-063	Solid	04/09/16 12:55	04/12/16 09:45
240-63371-10	SO-040916-JN-064	Solid	04/09/16 13:00	04/12/16 09:45
240-63371-11	SO-040916-JN-065	Solid	04/09/16 13:10	04/12/16 09:45
240-63371-12	SO-040916-JN-066	Solid	04/09/16 13:15	04/12/16 09:45
240-63371-13	EB-040916-JN-001	Water	04/09/16 13:20	04/12/16 09:45
240-63371-14	SO-040916-JN-067	Solid	04/09/16 13:35	04/12/16 09:45
240-63371-15	SO-040916-JN-068	Solid	04/09/16 13:40	04/12/16 09:45
240-63371-16	SO-040916-JN-069	Solid	04/09/16 13:50	04/12/16 09:45
240-63371-17	SO-040916-JN-070	Solid	04/09/16 13:55	04/12/16 09:45
240-63371-18	SO-040916-JN-071	Solid	04/09/16 14:10	04/12/16 09:45
240-63371-19	SO-040916-JN-072	Solid	04/09/16 14:15	04/12/16 09:45
240-63371-20	SO-040916-JN-073	Solid	04/09/16 14:20	04/12/16 09:45
240-63371-21	SO-040916-JN-074	Solid	04/09/16 14:30	04/12/16 09:45
240-63371-22	SO-040916-JN-075	Solid	04/09/16 14:35	04/12/16 09:45
240-63371-23	SO-040916-JN-076	Solid	04/09/16 14:45	04/12/16 09:45
240-63371-24	SO-040916-JN-077	Solid	04/09/16 14:50	04/12/16 09:45
240-63371-25	EB-040916-JN-002	Water	04/09/16 14:55	04/12/16 09:45
240-63371-26	SO-040916-JN-078	Solid	04/09/16 15:05	04/12/16 09:45
240-63371-27	SO-040916-JN-079	Solid	04/09/16 15:10	04/12/16 09:45
240-63371-28	SO-040916-JN-080	Solid	04/09/16 15:20	04/12/16 09:45
240-63371-29	SO-040916-JN-081	Solid	04/09/16 15:25	04/12/16 09:45
240-63371-30	SO-040916-JN-082	Solid	04/09/16 15:30	04/12/16 09:45
240-63371-31	EB-040916-JN-003	Water	04/09/16 15:45	04/12/16 09:45

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SE-040916-JN-055 — Lab Sample ID: 240-63371-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Gravel	0.0			%	1		D422	Total/NA
Sieve Size 3 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Sand	19.9			%	1		D422	Total/NA
Sieve Size 2 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Coarse Sand	0.7			%	1		D422	Total/NA
Sieve Size 1.5 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Medium Sand	4.6			%	1		D422	Total/NA
Sieve Size 1 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Fine Sand	14.6			%	1		D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Sieve Size 0.375 inch - Percent Finer	100.0			% Passing	1		D422	Total/NA
Silt	53.6			%	1		D422	Total/NA
Clay	26.5			%	1		D422	Total/NA
Sieve Size #4 - Percent Finer	100.0			% Passing	1		D422	Total/NA
Sieve Size #10 - Percent Finer	99.3			% Passing	1		D422	Total/NA
Sieve Size #20 - Percent Finer	97.6			% Passing	1		D422	Total/NA
Sieve Size #40 - Percent Finer	94.7			% Passing	1		D422	Total/NA
Sieve Size #60 - Percent Finer	91.0			% Passing	1		D422	Total/NA
Sieve Size #80 - Percent Finer	88.5			% Passing	1		D422	Total/NA
Sieve Size #100 - Percent Finer	86.5			% Passing	1		D422	Total/NA
Sieve Size #200 - Percent Finer	80.1			% Passing	1		D422	Total/NA
Hydrometer Reading 1 - Percent Finer	53.8			% Passing	1		D422	Total/NA
Hydrometer Reading 2 - Percent Finer	45.6			% Passing	1		D422	Total/NA
Hydrometer Reading 3 - Percent Finer	36.1			% Passing	1		D422	Total/NA
Hydrometer Reading 4 - Percent Finer	29.3			% Passing	1		D422	Total/NA
Hydrometer Reading 5 - Percent Finer	26.5			% Passing	1		D422	Total/NA
Hydrometer Reading 6 - Percent Finer	19.4			% Passing	1		D422	Total/NA
Hydrometer Reading 7 - Percent Finer	15.0			% Passing	1		D422	Total/NA

Client Sample ID: SO-040916-JN-056 — Lab Sample ID: 240-63371-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1254	120		43	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-057 — Lab Sample ID: 240-63371-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	2000		460	ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-058 — Lab Sample ID: 240-63371-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1254	850		440	ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-059 — Lab Sample ID: 240-63371-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	580		230	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	420		230	ug/Kg	5	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-060 — Lab Sample ID: 240-63371-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	550		430	ug/Kg	10	☼	8082	Total/NA
Aroclor-1254	2400		430	ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-061 — Lab Sample ID: 240-63371-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	670		230	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	320		230	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-062 — Lab Sample ID: 240-63371-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	570		220	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	220		220	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-063 — Lab Sample ID: 240-63371-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1254	56		42	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-064 — Lab Sample ID: 240-63371-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	500		240	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	290		240	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-065 — Lab Sample ID: 240-63371-11

No Detections.

Client Sample ID: SO-040916-JN-066 — Lab Sample ID: 240-63371-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	290		220	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: EB-040916-JN-001 — Lab Sample ID: 240-63371-13

No Detections.

Client Sample ID: SO-040916-JN-067 — Lab Sample ID: 240-63371-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	770		510	ug/Kg	10	☼	8082	Total/NA
Aroclor-1254	1500		510	ug/Kg	10	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-068 — Lab Sample ID: 240-63371-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	500		230	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	520		230	ug/Kg	5	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-069 — Lab Sample ID: 240-63371-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	260		200	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	220		200	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-070 — Lab Sample ID: 240-63371-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	680		240	ug/Kg	5	☼	8082	Total/NA
Aroclor-1254	550		240	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-071 — Lab Sample ID: 240-63371-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1242	60		45	ug/Kg	1	☼	8082	Total/NA
Aroclor-1254	96		45	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-072 — Lab Sample ID: 240-63371-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1254	120		45	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-073 — Lab Sample ID: 240-63371-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	170	p	45	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-074 — Lab Sample ID: 240-63371-21

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	210		46	ug/Kg	1	☼	8082	Total/NA
Aroclor-1260	72		46	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-075 — Lab Sample ID: 240-63371-22

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	200	p	47	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-076 — Lab Sample ID: 240-63371-23

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1254	83		46	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-077 — Lab Sample ID: 240-63371-24

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	930		440	ug/Kg	10	☼	8082	Total/NA

Client Sample ID: EB-040916-JN-002 — Lab Sample ID: 240-63371-25

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-078 — Lab Sample ID: 240-63371-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	2500		730		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-079 — Lab Sample ID: 240-63371-27

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	6000		970		ug/Kg	20	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-080 — Lab Sample ID: 240-63371-28

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	690		210		ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-081 — Lab Sample ID: 240-63371-29

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	370		200		ug/Kg	5	☼	8082	Total/NA

Client Sample ID: SO-040916-JN-082 — Lab Sample ID: 240-63371-30

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	14000		2300		ug/Kg	50	☼	8082	Total/NA

Client Sample ID: EB-040916-JN-003 — Lab Sample ID: 240-63371-31

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
D422	Grain Size	ASTM	TAL BUR

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-056
Date Collected: 04/09/16 11:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-2
Matrix: Solid
Percent Solids: 77.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	43	U	43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1
Aroclor-1221	43	U	43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1
Aroclor-1232	43	U	43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1
Aroclor-1242	43	U	43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1
Aroclor-1248	43	U	43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1
Aroclor-1254	**120**		43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1
Aroclor-1260	43	U	43		ug/Kg	☼	04/13/16 08:19	04/15/16 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*49*		*13 - 134*	*04/13/16 08:19*	*04/15/16 20:24*	*1*
DCB Decachlorobiphenyl	*70*		*10 - 155*	*04/13/16 08:19*	*04/15/16 20:24*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-057
Date Collected: 04/09/16 11:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-3
Matrix: Solid
Percent Solids: 71.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	460	U	460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10
Aroclor-1221	460	U	460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10
Aroclor-1232	460	U	460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10
Aroclor-1242	**2000**		460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10
Aroclor-1248	460	U	460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10
Aroclor-1254	460	U	460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10
Aroclor-1260	460	U	460		ug/Kg	☼	04/13/16 08:19	04/15/16 20:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*13 - 134*	*04/13/16 08:19*	*04/15/16 20:43*	*10*
DCB Decachlorobiphenyl	*94*		*10 - 155*	*04/13/16 08:19*	*04/15/16 20:43*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-058
Date Collected: 04/09/16 12:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-4
Matrix: Solid
Percent Solids: 74.7

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	440	U	440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10
Aroclor-1221	440	U	440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10
Aroclor-1232	440	U	440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10
Aroclor-1242	440	U	440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10
Aroclor-1248	440	U	440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10
Aroclor-1254	**850**		440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10
Aroclor-1260	440	U	440		ug/Kg	☼	04/13/16 08:19	04/15/16 21:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*13 - 134*	*04/13/16 08:19*	*04/15/16 21:01*	*10*
DCB Decachlorobiphenyl	*99*		*10 - 155*	*04/13/16 08:19*	*04/15/16 21:01*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-059
Date Collected: 04/09/16 12:25
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-5
Matrix: Solid
Percent Solids: 71.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	230	U	230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5
Aroclor-1221	230	U	230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5
Aroclor-1232	230	U	230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5
Aroclor-1242	**580**		230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5
Aroclor-1248	230	U	230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5
Aroclor-1254	**420**		230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5
Aroclor-1260	230	U	230		ug/Kg	☼	04/13/16 08:19	04/15/16 21:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*13 - 134*	*04/13/16 08:19*	*04/15/16 21:19*	*5*
DCB Decachlorobiphenyl	*87*		*10 - 155*	*04/13/16 08:19*	*04/15/16 21:19*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-060
Date Collected: 04/09/16 12:35
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-6
Matrix: Solid
Percent Solids: 77.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	430	U	430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10
Aroclor-1221	430	U	430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10
Aroclor-1232	430	U	430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10
Aroclor-1242	**550**		430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10
Aroclor-1248	430	U	430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10
Aroclor-1254	**2400**		430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10
Aroclor-1260	430	U	430	ug/Kg	☼	04/13/16 08:19	04/15/16 21:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*109*		*13 - 134*	*04/13/16 08:19*	*04/15/16 21:38*	*10*
DCB Decachlorobiphenyl	*192*	*X*	*10 - 155*	*04/13/16 08:19*	*04/15/16 21:38*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-061
Date Collected: 04/09/16 12:40
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-7
Matrix: Solid
Percent Solids: 71.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	230	U	230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5
Aroclor-1221	230	U	230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5
Aroclor-1232	230	U	230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5
Aroclor-1242	**670**		230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5
Aroclor-1248	230	U	230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5
Aroclor-1254	**320**		230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5
Aroclor-1260	230	U	230	ug/Kg	☼	04/13/16 08:19	04/15/16 21:56	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*13 - 134*	*04/13/16 08:19*	*04/15/16 21:56*	*5*
DCB Decachlorobiphenyl	*92*		*10 - 155*	*04/13/16 08:19*	*04/15/16 21:56*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-062
Date Collected: 04/09/16 12:45
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-8
Matrix: Solid
Percent Solids: 73.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5
Aroclor-1221	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5
Aroclor-1232	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5
Aroclor-1242	**570**		220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5
Aroclor-1248	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5
Aroclor-1254	**220**		220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5
Aroclor-1260	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 22:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*13 - 134*	*04/13/16 08:19*	*04/15/16 22:15*	*5*
DCB Decachlorobiphenyl	*89*		*10 - 155*	*04/13/16 08:19*	*04/15/16 22:15*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-063
Date Collected: 04/09/16 12:55
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-9
Matrix: Solid
Percent Solids: 78.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	42	U	42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1
Aroclor-1221	42	U	42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1
Aroclor-1232	42	U	42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1
Aroclor-1242	42	U	42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1
Aroclor-1248	42	U	42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1
Aroclor-1254	**56**		42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1
Aroclor-1260	42	U	42		ug/Kg	☼	04/13/16 08:19	04/15/16 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*56*		*13 - 134*	*04/13/16 08:19*	*04/15/16 22:33*	*1*
DCB Decachlorobiphenyl	*66*		*10 - 155*	*04/13/16 08:19*	*04/15/16 22:33*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-064
Date Collected: 04/09/16 13:00
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-10
Matrix: Solid
Percent Solids: 67.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	240	U	240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5
Aroclor-1221	240	U	240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5
Aroclor-1232	240	U	240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5
Aroclor-1242	**500**		240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5
Aroclor-1248	240	U	240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5
Aroclor-1254	**290**		240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5
Aroclor-1260	240	U	240	ug/Kg	☼	04/13/16 08:19	04/15/16 22:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*		*13 - 134*	*04/13/16 08:19*	*04/15/16 22:52*	*5*
DCB Decachlorobiphenyl	*54*		*10 - 155*	*04/13/16 08:19*	*04/15/16 22:52*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-065
Date Collected: 04/09/16 13:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-11
Matrix: Solid
Percent Solids: 74.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1
Aroclor-1221	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1
Aroclor-1232	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1
Aroclor-1242	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1
Aroclor-1248	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1
Aroclor-1254	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1
Aroclor-1260	44	U	44		ug/Kg	☼	04/13/16 08:19	04/15/16 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*51*		*13 - 134*	*04/13/16 08:19*	*04/15/16 23:10*	*1*
DCB Decachlorobiphenyl	*60*		*10 - 155*	*04/13/16 08:19*	*04/15/16 23:10*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-066
Date Collected: 04/09/16 13:15
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-12
Matrix: Solid
Percent Solids: 74.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5
Aroclor-1221	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5
Aroclor-1232	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5
Aroclor-1242	**290**		220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5
Aroclor-1248	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5
Aroclor-1254	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5
Aroclor-1260	220	U	220	ug/Kg	☼	04/13/16 08:19	04/15/16 23:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*13 - 134*	*04/13/16 08:19*	*04/15/16 23:28*	*5*
DCB Decachlorobiphenyl	*86*		*10 - 155*	*04/13/16 08:19*	*04/15/16 23:28*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: EB-040916-JN-001
Date Collected: 04/09/16 13:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-13
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1
Aroclor-1221	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1
Aroclor-1232	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1
Aroclor-1242	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1
Aroclor-1248	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1
Aroclor-1254	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1
Aroclor-1260	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*45*		*21 - 124*	*04/13/16 05:07*	*04/15/16 10:13*	*1*
DCB Decachlorobiphenyl	*25*		*10 - 131*	*04/13/16 05:07*	*04/15/16 10:13*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-067
Date Collected: 04/09/16 13:35
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-14
Matrix: Solid
Percent Solids: 64.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	510	U	510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10
Aroclor-1221	510	U	510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10
Aroclor-1232	510	U	510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10
Aroclor-1242	**770**		510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10
Aroclor-1248	510	U	510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10
Aroclor-1254	**1500**		510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10
Aroclor-1260	510	U	510		ug/Kg	☼	04/13/16 08:19	04/15/16 23:47	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*13 - 134*	*04/13/16 08:19*	*04/15/16 23:47*	*10*
DCB Decachlorobiphenyl	*74*		*10 - 155*	*04/13/16 08:19*	*04/15/16 23:47*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-068
Date Collected: 04/09/16 13:40
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-15
Matrix: Solid
Percent Solids: 72.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	230	U F1	230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5
Aroclor-1221	230	U	230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5
Aroclor-1232	230	U	230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5
Aroclor-1242	**500**		230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5
Aroclor-1248	230	U	230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5
Aroclor-1254	**520**		230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5
Aroclor-1260	230	U	230		ug/Kg	☼	04/13/16 08:19	04/16/16 00:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*13 - 134*	*04/13/16 08:19*	*04/16/16 00:05*	*5*
DCB Decachlorobiphenyl	*113*		*10 - 155*	*04/13/16 08:19*	*04/16/16 00:05*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-069
Date Collected: 04/09/16 13:50
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-16
Matrix: Solid
Percent Solids: 83.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	200	U	200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5
Aroclor-1221	200	U	200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5
Aroclor-1232	200	U	200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5
Aroclor-1242	**260**		200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5
Aroclor-1248	200	U	200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5
Aroclor-1254	**220**		200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5
Aroclor-1260	200	U	200	ug/Kg	☼	04/13/16 08:19	04/16/16 01:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*55*		*13 - 134*	*04/13/16 08:19*	*04/16/16 01:00*	*5*
DCB Decachlorobiphenyl	*53*		*10 - 155*	*04/13/16 08:19*	*04/16/16 01:00*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-070
Date Collected: 04/09/16 13:55
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-17
Matrix: Solid
Percent Solids: 70.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	240	U	240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5
Aroclor-1221	240	U	240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5
Aroclor-1232	240	U	240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5
Aroclor-1242	**680**		240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5
Aroclor-1248	240	U	240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5
Aroclor-1254	**550**		240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5
Aroclor-1260	240	U	240	ug/Kg	☼	04/13/16 08:19	04/16/16 01:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*13 - 134*	*04/13/16 08:19*	*04/16/16 01:19*	*5*
DCB Decachlorobiphenyl	*85*		*10 - 155*	*04/13/16 08:19*	*04/16/16 01:19*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-071
Date Collected: 04/09/16 14:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-18
Matrix: Solid
Percent Solids: 73.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	45	U	45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1
Aroclor-1221	45	U	45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1
Aroclor-1232	45	U	45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1
Aroclor-1242	**60**		45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1
Aroclor-1248	45	U	45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1
Aroclor-1254	**96**		45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1
Aroclor-1260	45	U	45	ug/Kg	☼	04/13/16 08:19	04/16/16 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*48*		*13 - 134*	*04/13/16 08:19*	*04/16/16 01:37*	*1*
DCB Decachlorobiphenyl	*64*		*10 - 155*	*04/13/16 08:19*	*04/16/16 01:37*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-072
Date Collected: 04/09/16 14:15
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-19
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1
Aroclor-1221	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1
Aroclor-1232	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1
Aroclor-1242	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1
Aroclor-1248	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1
Aroclor-1254	**120**		45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1
Aroclor-1260	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*58*		*13 - 134*	*04/13/16 08:19*	*04/20/16 19:26*	*1*
DCB Decachlorobiphenyl	*65*		*10 - 155*	*04/13/16 08:19*	*04/20/16 19:26*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-073
Date Collected: 04/09/16 14:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-20
Matrix: Solid
Percent Solids: 72.4

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1
Aroclor-1221	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1
Aroclor-1232	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1
Aroclor-1242	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1
Aroclor-1248	**170**	**p**	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1
Aroclor-1254	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1
Aroclor-1260	45	U	45	ug/Kg	☼	04/13/16 08:19	04/20/16 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*17*		*13 - 134*	*04/13/16 08:19*	*04/20/16 19:43*	*1*
DCB Decachlorobiphenyl	*26*		*10 - 155*	*04/13/16 08:19*	*04/20/16 19:43*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-074
Date Collected: 04/09/16 14:30
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-21
Matrix: Solid
Percent Solids: 72.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	46	U	46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1
Aroclor-1221	46	U	46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1
Aroclor-1232	46	U	46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1
Aroclor-1242	46	U	46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1
Aroclor-1248	**210**		46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1
Aroclor-1254	46	U	46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1
Aroclor-1260	**72**		46		ug/Kg	☼	04/13/16 08:19	04/20/16 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*13 - 134*	*04/13/16 08:19*	*04/20/16 20:01*	*1*
DCB Decachlorobiphenyl	*156*	*X*	*10 - 155*	*04/13/16 08:19*	*04/20/16 20:01*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-075
Date Collected: 04/09/16 14:35
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-22
Matrix: Solid
Percent Solids: 70.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	47	U	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1
Aroclor-1221	47	U	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1
Aroclor-1232	47	U	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1
Aroclor-1242	47	U	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1
Aroclor-1248	**200**	**p**	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1
Aroclor-1254	47	U	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1
Aroclor-1260	47	U	47	ug/Kg	☼	04/13/16 08:19	04/20/16 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*20*		*13 - 134*	*04/13/16 08:19*	*04/20/16 20:19*	*1*
DCB Decachlorobiphenyl	*19*		*10 - 155*	*04/13/16 08:19*	*04/20/16 20:19*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-076
Date Collected: 04/09/16 14:45
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-23
Matrix: Solid
Percent Solids: 72.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	46	U	46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1
Aroclor-1221	46	U	46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1
Aroclor-1232	46	U	46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1
Aroclor-1242	46	U	46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1
Aroclor-1248	46	U	46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1
Aroclor-1254	**83**		46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1
Aroclor-1260	46	U	46		ug/Kg	☼	04/13/16 10:05	04/18/16 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*13 - 134*	*04/13/16 10:05*	*04/18/16 14:09*	*1*
DCB Decachlorobiphenyl	*92*		*10 - 155*	*04/13/16 10:05*	*04/18/16 14:09*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-077
Date Collected: 04/09/16 14:50
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-24
Matrix: Solid
Percent Solids: 75.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	440	U	440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10
Aroclor-1221	440	U	440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10
Aroclor-1232	440	U	440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10
Aroclor-1242	440	U	440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10
Aroclor-1248	**930**		440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10
Aroclor-1254	440	U	440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10
Aroclor-1260	440	U	440		ug/Kg	☼	04/13/16 10:05	04/15/16 10:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*128*		*13 - 134*	*04/13/16 10:05*	*04/15/16 10:01*	*10*
DCB Decachlorobiphenyl	*144*		*10 - 155*	*04/13/16 10:05*	*04/15/16 10:01*	*10*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: EB-040916-JN-002
Date Collected: 04/09/16 14:55
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-25
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1
Aroclor-1221	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1
Aroclor-1232	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1
Aroclor-1242	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1
Aroclor-1248	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1
Aroclor-1254	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1
Aroclor-1260	0.19	U	0.19		ug/L		04/13/16 05:07	04/15/16 10:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*42*		*21 - 124*	*04/13/16 05:07*	*04/15/16 10:31*	*1*
DCB Decachlorobiphenyl	*31*		*10 - 131*	*04/13/16 05:07*	*04/15/16 10:31*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-078
Date Collected: 04/09/16 15:05
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-26
Matrix: Solid
Percent Solids: 89.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	730	U	730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20
Aroclor-1221	730	U	730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20
Aroclor-1232	730	U	730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20
Aroclor-1242	730	U	730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20
Aroclor-1248	**2500**		730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20
Aroclor-1254	730	U	730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20
Aroclor-1260	730	U	730		ug/Kg	☼	04/13/16 10:05	04/15/16 10:20	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*107*		*13 - 134*	*04/13/16 10:05*	*04/15/16 10:20*	*20*
DCB Decachlorobiphenyl	*109*		*10 - 155*	*04/13/16 10:05*	*04/15/16 10:20*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-079
Date Collected: 04/09/16 15:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-27
Matrix: Solid
Percent Solids: 67.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	970	U	970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20
Aroclor-1221	970	U	970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20
Aroclor-1232	970	U	970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20
Aroclor-1242	970	U	970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20
Aroclor-1248	**6000**		970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20
Aroclor-1254	970	U	970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20
Aroclor-1260	970	U	970		ug/Kg	☼	04/13/16 10:05	04/18/16 14:28	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*13 - 134*	*04/13/16 10:05*	*04/18/16 14:28*	*20*
DCB Decachlorobiphenyl	*168*	*X*	*10 - 155*	*04/13/16 10:05*	*04/18/16 14:28*	*20*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-080
Date Collected: 04/09/16 15:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-28
Matrix: Solid
Percent Solids: 79.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	210	U	210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5
Aroclor-1221	210	U	210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5
Aroclor-1232	210	U	210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5
Aroclor-1242	210	U	210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5
Aroclor-1248	**690**		210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5
Aroclor-1254	210	U	210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5
Aroclor-1260	210	U	210		ug/Kg	☼	04/13/16 10:05	04/15/16 10:56	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*13 - 134*	*04/13/16 10:05*	*04/15/16 10:56*	*5*
DCB Decachlorobiphenyl	*95*		*10 - 155*	*04/13/16 10:05*	*04/15/16 10:56*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-081
Date Collected: 04/09/16 15:25
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-29
Matrix: Solid
Percent Solids: 83.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	200	U	200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5
Aroclor-1221	200	U	200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5
Aroclor-1232	200	U	200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5
Aroclor-1242	200	U	200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5
Aroclor-1248	**370**		200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5
Aroclor-1254	200	U	200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5
Aroclor-1260	200	U	200	ug/Kg	☼	04/13/16 10:05	04/18/16 14:46	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*13 - 134*	*04/13/16 10:05*	*04/18/16 14:46*	*5*
DCB Decachlorobiphenyl	*102*		*10 - 155*	*04/13/16 10:05*	*04/18/16 14:46*	*5*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: SO-040916-JN-082
Date Collected: 04/09/16 15:30
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-30
Matrix: Solid
Percent Solids: 71.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	2300	U	2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50
Aroclor-1221	2300	U	2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50
Aroclor-1232	2300	U	2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50
Aroclor-1242	2300	U	2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50
Aroclor-1248	**14000**		2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50
Aroclor-1254	2300	U	2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50
Aroclor-1260	2300	U	2300		ug/Kg	☼	04/13/16 10:05	04/18/16 15:04	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*13 - 134*	*04/13/16 10:05*	*04/18/16 15:04*	*50*
DCB Decachlorobiphenyl	*127*		*10 - 155*	*04/13/16 10:05*	*04/18/16 15:04*	*50*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: EB-040916-JN-003
Date Collected: 04/09/16 15:45
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-31
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1
Aroclor-1221	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1
Aroclor-1232	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1
Aroclor-1242	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1
Aroclor-1248	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1
Aroclor-1254	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1
Aroclor-1260	0.19	U	0.19	ug/L		04/13/16 05:07	04/15/16 10:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*43*		*21 - 124*	*04/13/16 05:07*	*04/15/16 10:48*	*1*
DCB Decachlorobiphenyl	*35*		*10 - 131*	*04/13/16 05:07*	*04/15/16 10:48*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-056
Date Collected: 04/09/16 11:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-2
Matrix: Solid
Percent Solids: 77.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	77.3		0.1		%			04/12/16 13:52	1
Percent Moisture	22.7		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-057
Date Collected: 04/09/16 11:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-3
Matrix: Solid
Percent Solids: 71.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**71.1**		0.1		%			04/12/16 13:52	1
Percent Moisture	**28.9**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-058
Date Collected: 04/09/16 12:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-4
Matrix: Solid
Percent Solids: 74.7

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**74.7**		0.1		%			04/12/16 13:52	1
Percent Moisture	**25.3**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-059
Date Collected: 04/09/16 12:25
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-5
Matrix: Solid
Percent Solids: 71.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**71.8**		0.1		%			04/12/16 13:52	1
Percent Moisture	**28.2**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-060
Date Collected: 04/09/16 12:35
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-6
Matrix: Solid
Percent Solids: 77.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**77.3**		0.1		%			04/12/16 13:52	1
Percent Moisture	**22.7**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-061
Date Collected: 04/09/16 12:40
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-7
Matrix: Solid
Percent Solids: 71.7

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**71.7**		0.1		%			04/12/16 13:52	1
Percent Moisture	**28.3**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-062
Date Collected: 04/09/16 12:45
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-8
Matrix: Solid
Percent Solids: 73.7

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**73.7**		0.1		%			04/12/16 13:52	1
Percent Moisture	**26.3**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-063
Date Collected: 04/09/16 12:55
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-9
Matrix: Solid
Percent Solids: 78.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**78.0**		0.1		%			04/12/16 13:52	1
Percent Moisture	**22.0**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-064
Date Collected: 04/09/16 13:00
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-10
Matrix: Solid
Percent Solids: 67.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**67.2**		0.1		%			04/12/16 13:52	1
Percent Moisture	**32.8**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-065
Date Collected: 04/09/16 13:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-11
Matrix: Solid
Percent Solids: 74.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**74.2**		0.1		%			04/12/16 13:52	1
Percent Moisture	**25.8**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-066
Date Collected: 04/09/16 13:15
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-12
Matrix: Solid
Percent Solids: 74.8

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**74.8**		0.1		%			04/12/16 13:52	1
Percent Moisture	**25.2**		0.1		%			04/12/16 13:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-067
Date Collected: 04/09/16 13:35
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-14
Matrix: Solid
Percent Solids: 64.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**64.9**		0.1		%			04/12/16 16:48	1
Percent Moisture	**35.1**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-068
Date Collected: 04/09/16 13:40
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-15
Matrix: Solid
Percent Solids: 72.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**72.2**		0.1		%			04/12/16 16:48	1
Percent Moisture	**27.8**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-069
Date Collected: 04/09/16 13:50
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-16
Matrix: Solid
Percent Solids: 83.1

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**83.1**		0.1		%			04/12/16 16:48	1
Percent Moisture	**16.9**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-070
Date Collected: 04/09/16 13:55
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-17
Matrix: Solid
Percent Solids: 70.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**70.9**		0.1		%			04/12/16 16:48	1
Percent Moisture	**29.1**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-071
Date Collected: 04/09/16 14:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-18
Matrix: Solid
Percent Solids: 73.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**73.2**		0.1		%			04/12/16 16:48	1
Percent Moisture	**26.8**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-072
Date Collected: 04/09/16 14:15
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-19
Matrix: Solid
Percent Solids: 73.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**73.3**		0.1		%			04/12/16 16:48	1
Percent Moisture	**26.7**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-073
Date Collected: 04/09/16 14:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-20
Matrix: Solid
Percent Solids: 72.4

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**72.4**		0.1		%			04/12/16 16:48	1
Percent Moisture	**27.6**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-074
Date Collected: 04/09/16 14:30
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-21
Matrix: Solid
Percent Solids: 72.9

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**72.9**		0.1		%			04/12/16 16:48	1
Percent Moisture	**27.1**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-075
Date Collected: 04/09/16 14:35
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-22
Matrix: Solid
Percent Solids: 70.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**70.0**		0.1		%			04/12/16 16:48	1
Percent Moisture	**30.0**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-076
Date Collected: 04/09/16 14:45
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-23
Matrix: Solid
Percent Solids: 72.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**72.5**		0.1		%			04/12/16 16:48	1
Percent Moisture	**27.5**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-077
Date Collected: 04/09/16 14:50
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-24
Matrix: Solid
Percent Solids: 75.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**75.0**		0.1		%			04/12/16 16:48	1
Percent Moisture	**25.0**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-078
Date Collected: 04/09/16 15:05
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-26
Matrix: Solid
Percent Solids: 89.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**89.5**		0.1		%			04/12/16 16:48	1
Percent Moisture	**10.5**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-079
Date Collected: 04/09/16 15:10
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-27
Matrix: Solid
Percent Solids: 67.2

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**67.2**		0.1		%			04/12/16 16:48	1
Percent Moisture	**32.8**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-080
Date Collected: 04/09/16 15:20
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-28
Matrix: Solid
Percent Solids: 79.0

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**79.0**		0.1		%			04/12/16 16:48	1
Percent Moisture	**21.0**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-081
Date Collected: 04/09/16 15:25
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-29
Matrix: Solid
Percent Solids: 83.3

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**83.3**		0.1		%			04/12/16 16:48	1
Percent Moisture	**16.7**		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Client Sample ID: SO-040916-JN-082
Date Collected: 04/09/16 15:30
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-30
Matrix: Solid
Percent Solids: 71.5

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	71.5		0.1		%			04/12/16 16:48	1
Percent Moisture	28.5		0.1		%			04/12/16 16:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: D422 - Grain Size

Client Sample ID: SE-040916-JN-055
Date Collected: 04/09/16 10:15
Date Received: 04/12/16 09:45

Lab Sample ID: 240-63371-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			04/13/16 13:29	1
Sieve Size 3 inch - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Sand	19.9				%			04/13/16 13:29	1
Sieve Size 2 inch - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Coarse Sand	0.7				%			04/13/16 13:29	1
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Medium Sand	4.6				%			04/13/16 13:29	1
Sieve Size 1 inch - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Fine Sand	14.6				%			04/13/16 13:29	1
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Silt	53.6				%			04/13/16 13:29	1
Clay	26.5				%			04/13/16 13:29	1
Sieve Size #4 - Percent Finer	100.0				% Passing			04/13/16 13:29	1
Sieve Size #10 - Percent Finer	99.3				% Passing			04/13/16 13:29	1
Sieve Size #20 - Percent Finer	97.6				% Passing			04/13/16 13:29	1
Sieve Size #40 - Percent Finer	94.7				% Passing			04/13/16 13:29	1
Sieve Size #60 - Percent Finer	91.0				% Passing			04/13/16 13:29	1
Sieve Size #80 - Percent Finer	88.5				% Passing			04/13/16 13:29	1
Sieve Size #100 - Percent Finer	86.5				% Passing			04/13/16 13:29	1
Sieve Size #200 - Percent Finer	80.1				% Passing			04/13/16 13:29	1
Hydrometer Reading 1 - Percent Finer	53.8				% Passing			04/13/16 13:29	1
Hydrometer Reading 2 - Percent Finer	45.6				% Passing			04/13/16 13:29	1
Hydrometer Reading 3 - Percent Finer	36.1				% Passing			04/13/16 13:29	1
Hydrometer Reading 4 - Percent Finer	29.3				% Passing			04/13/16 13:29	1
Hydrometer Reading 5 - Percent Finer	26.5				% Passing			04/13/16 13:29	1
Hydrometer Reading 6 - Percent Finer	19.4				% Passing			04/13/16 13:29	1
Hydrometer Reading 7 - Percent Finer	15.0				% Passing			04/13/16 13:29	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

GC Semi VOA

Prep Batch: 225724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-13	EB-040916-JN-001	Total/NA	Water	3520C	
240-63371-25	EB-040916-JN-002	Total/NA	Water	3520C	
240-63371-31	EB-040916-JN-003	Total/NA	Water	3520C	
LCS 240-225724/6-A	Lab Control Sample	Total/NA	Water	3520C	
MB 240-225724/5-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 225756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-2	SO-040916-JN-056	Total/NA	Solid	3540C	
240-63371-3	SO-040916-JN-057	Total/NA	Solid	3540C	
240-63371-4	SO-040916-JN-058	Total/NA	Solid	3540C	
240-63371-5	SO-040916-JN-059	Total/NA	Solid	3540C	
240-63371-6	SO-040916-JN-060	Total/NA	Solid	3540C	
240-63371-7	SO-040916-JN-061	Total/NA	Solid	3540C	
240-63371-8	SO-040916-JN-062	Total/NA	Solid	3540C	
240-63371-9	SO-040916-JN-063	Total/NA	Solid	3540C	
240-63371-10	SO-040916-JN-064	Total/NA	Solid	3540C	
240-63371-11	SO-040916-JN-065	Total/NA	Solid	3540C	
240-63371-12	SO-040916-JN-066	Total/NA	Solid	3540C	
240-63371-14	SO-040916-JN-067	Total/NA	Solid	3540C	
240-63371-15	SO-040916-JN-068	Total/NA	Solid	3540C	
240-63371-15 MS	SO-040916-JN-068	Total/NA	Solid	3540C	
240-63371-15 MSD	SO-040916-JN-068	Total/NA	Solid	3540C	
240-63371-16	SO-040916-JN-069	Total/NA	Solid	3540C	
240-63371-17	SO-040916-JN-070	Total/NA	Solid	3540C	
240-63371-18	SO-040916-JN-071	Total/NA	Solid	3540C	
240-63371-19	SO-040916-JN-072	Total/NA	Solid	3540C	
240-63371-20	SO-040916-JN-073	Total/NA	Solid	3540C	
240-63371-21	SO-040916-JN-074	Total/NA	Solid	3540C	
240-63371-22	SO-040916-JN-075	Total/NA	Solid	3540C	
LCS 240-225756/24-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225756/23-A	Method Blank	Total/NA	Solid	3540C	

Prep Batch: 225789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-23	SO-040916-JN-076	Total/NA	Solid	3540C	
240-63371-24	SO-040916-JN-077	Total/NA	Solid	3540C	
240-63371-26	SO-040916-JN-078	Total/NA	Solid	3540C	
240-63371-27	SO-040916-JN-079	Total/NA	Solid	3540C	
240-63371-28	SO-040916-JN-080	Total/NA	Solid	3540C	
240-63371-29	SO-040916-JN-081	Total/NA	Solid	3540C	
240-63371-30	SO-040916-JN-082	Total/NA	Solid	3540C	
240-63371-30 MS	SO-040916-JN-082	Total/NA	Solid	3540C	
240-63371-30 MSD	SO-040916-JN-082	Total/NA	Solid	3540C	
LCS 240-225789/11-A	Lab Control Sample	Total/NA	Solid	3540C	
MB 240-225789/10-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 226057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-24	SO-040916-JN-077	Total/NA	Solid	8082	225789
240-63371-26	SO-040916-JN-078	Total/NA	Solid	8082	225789

GC Semi VOA (Continued)

Analysis Batch: 226057 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-28	SO-040916-JN-080	Total/NA	Solid	8082	225789
LCS 240-225789/11-A	Lab Control Sample	Total/NA	Solid	8082	225789
MB 240-225789/10-A	Method Blank	Total/NA	Solid	8082	225789

Analysis Batch: 226060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-13	EB-040916-JN-001	Total/NA	Water	8082	225724
240-63371-25	EB-040916-JN-002	Total/NA	Water	8082	225724
240-63371-31	EB-040916-JN-003	Total/NA	Water	8082	225724
LCS 240-225724/6-A	Lab Control Sample	Total/NA	Water	8082	225724
MB 240-225724/5-A	Method Blank	Total/NA	Water	8082	225724

Analysis Batch: 226189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-2	SO-040916-JN-056	Total/NA	Solid	8082	225756
240-63371-3	SO-040916-JN-057	Total/NA	Solid	8082	225756
240-63371-4	SO-040916-JN-058	Total/NA	Solid	8082	225756
240-63371-5	SO-040916-JN-059	Total/NA	Solid	8082	225756
240-63371-6	SO-040916-JN-060	Total/NA	Solid	8082	225756
240-63371-7	SO-040916-JN-061	Total/NA	Solid	8082	225756
240-63371-8	SO-040916-JN-062	Total/NA	Solid	8082	225756
240-63371-9	SO-040916-JN-063	Total/NA	Solid	8082	225756
240-63371-10	SO-040916-JN-064	Total/NA	Solid	8082	225756
240-63371-11	SO-040916-JN-065	Total/NA	Solid	8082	225756
240-63371-12	SO-040916-JN-066	Total/NA	Solid	8082	225756
240-63371-14	SO-040916-JN-067	Total/NA	Solid	8082	225756
240-63371-15	SO-040916-JN-068	Total/NA	Solid	8082	225756
240-63371-15 MS	SO-040916-JN-068	Total/NA	Solid	8082	225756
240-63371-15 MSD	SO-040916-JN-068	Total/NA	Solid	8082	225756
240-63371-16	SO-040916-JN-069	Total/NA	Solid	8082	225756
240-63371-17	SO-040916-JN-070	Total/NA	Solid	8082	225756
240-63371-18	SO-040916-JN-071	Total/NA	Solid	8082	225756

Analysis Batch: 226262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-23	SO-040916-JN-076	Total/NA	Solid	8082	225789
240-63371-27	SO-040916-JN-079	Total/NA	Solid	8082	225789
240-63371-29	SO-040916-JN-081	Total/NA	Solid	8082	225789
240-63371-30	SO-040916-JN-082	Total/NA	Solid	8082	225789
240-63371-30 MS	SO-040916-JN-082	Total/NA	Solid	8082	225789
240-63371-30 MSD	SO-040916-JN-082	Total/NA	Solid	8082	225789

Analysis Batch: 226805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-19	SO-040916-JN-072	Total/NA	Solid	8082	225756
240-63371-20	SO-040916-JN-073	Total/NA	Solid	8082	225756
240-63371-21	SO-040916-JN-074	Total/NA	Solid	8082	225756
240-63371-22	SO-040916-JN-075	Total/NA	Solid	8082	225756
LCS 240-225756/24-A	Lab Control Sample	Total/NA	Solid	8082	225756
MB 240-225756/23-A	Method Blank	Total/NA	Solid	8082	225756

QC Association Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

General Chemistry

Analysis Batch: 225661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-2	SO-040916-JN-056	Total/NA	Solid	Moisture	
240-63371-2 DU	SO-040916-JN-056	Total/NA	Solid	Moisture	
240-63371-3	SO-040916-JN-057	Total/NA	Solid	Moisture	
240-63371-4	SO-040916-JN-058	Total/NA	Solid	Moisture	
240-63371-5	SO-040916-JN-059	Total/NA	Solid	Moisture	
240-63371-6	SO-040916-JN-060	Total/NA	Solid	Moisture	
240-63371-7	SO-040916-JN-061	Total/NA	Solid	Moisture	
240-63371-8	SO-040916-JN-062	Total/NA	Solid	Moisture	
240-63371-9	SO-040916-JN-063	Total/NA	Solid	Moisture	
240-63371-10	SO-040916-JN-064	Total/NA	Solid	Moisture	
240-63371-11	SO-040916-JN-065	Total/NA	Solid	Moisture	
240-63371-11 DU	SO-040916-JN-065	Total/NA	Solid	Moisture	
240-63371-12	SO-040916-JN-066	Total/NA	Solid	Moisture	
240-63371-14	SO-040916-JN-067	Total/NA	Solid	Moisture	
240-63371-15	SO-040916-JN-068	Total/NA	Solid	Moisture	
240-63371-15 DU	SO-040916-JN-068	Total/NA	Solid	Moisture	
240-63371-16	SO-040916-JN-069	Total/NA	Solid	Moisture	
240-63371-17	SO-040916-JN-070	Total/NA	Solid	Moisture	
240-63371-18	SO-040916-JN-071	Total/NA	Solid	Moisture	
240-63371-19	SO-040916-JN-072	Total/NA	Solid	Moisture	
240-63371-20	SO-040916-JN-073	Total/NA	Solid	Moisture	
240-63371-20 DU	SO-040916-JN-073	Total/NA	Solid	Moisture	
240-63371-21	SO-040916-JN-074	Total/NA	Solid	Moisture	
240-63371-22	SO-040916-JN-075	Total/NA	Solid	Moisture	
240-63371-23	SO-040916-JN-076	Total/NA	Solid	Moisture	
240-63371-24	SO-040916-JN-077	Total/NA	Solid	Moisture	
240-63371-26	SO-040916-JN-078	Total/NA	Solid	Moisture	
240-63371-27	SO-040916-JN-079	Total/NA	Solid	Moisture	
240-63371-28	SO-040916-JN-080	Total/NA	Solid	Moisture	
240-63371-29	SO-040916-JN-081	Total/NA	Solid	Moisture	
240-63371-30	SO-040916-JN-082	Total/NA	Solid	Moisture	
240-63371-30 DU	SO-040916-JN-082	Total/NA	Solid	Moisture	

Geotechnical

Analysis Batch: 103595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-63371-1	SE-040916-JN-055	Total/NA	Solid	D422	

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-225724/5-A
Matrix: Water
Analysis Batch: 226060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225724

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1
Aroclor-1221	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1
Aroclor-1232	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1
Aroclor-1242	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1
Aroclor-1248	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1
Aroclor-1254	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1
Aroclor-1260	0.20	U	0.20		ug/L		04/13/16 05:07	04/15/16 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*53*		*21 - 124*	*04/13/16 05:07*	*04/15/16 11:06*	*1*
DCB Decachlorobiphenyl	*59*		*10 - 131*	*04/13/16 05:07*	*04/15/16 11:06*	*1*

Lab Sample ID: LCS 240-225724/6-A
Matrix: Water
Analysis Batch: 226060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225724

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			2.50	1.48		ug/L		59	48 - 126		
Aroclor-1260			2.50	1.52		ug/L		61	43 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*53*		*21 - 124*
DCB Decachlorobiphenyl	*58*		*10 - 131*

Lab Sample ID: MB 240-225756/23-A
Matrix: Solid
Analysis Batch: 226805

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225756

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1
Aroclor-1221	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1
Aroclor-1232	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1
Aroclor-1242	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1
Aroclor-1248	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1
Aroclor-1254	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1
Aroclor-1260	33	U	33		ug/Kg		04/13/16 08:19	04/20/16 20:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*53*		*13 - 134*	*04/13/16 08:19*	*04/20/16 20:37*	*1*
DCB Decachlorobiphenyl	*81*		*10 - 155*	*04/13/16 08:19*	*04/20/16 20:37*	*1*

Lab Sample ID: LCS 240-225756/24-A
Matrix: Solid
Analysis Batch: 226805

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225756

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			333	176		ug/Kg		53	51 - 120		

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 240-225756/24-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226805 — **Prep Batch: 225756**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1260			333	233		ug/Kg		70	48 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*46*		*13 - 134*
DCB Decachlorobiphenyl	*68*		*10 - 155*

Lab Sample ID: 240-63371-15 MS — **Client Sample ID: SO-040916-JN-068**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226189 — **Prep Batch: 225756**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016	230	U F1	454	753	F1	ug/Kg	☼	166	17 - 141		
Aroclor-1260	230	U	454	609		ug/Kg	☼	134	19 - 137		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*85*		*13 - 134*
DCB Decachlorobiphenyl	*96*		*10 - 155*

Lab Sample ID: 240-63371-15 MSD — **Client Sample ID: SO-040916-JN-068**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226189 — **Prep Batch: 225756**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor-1016	230	U F1	460	650		ug/Kg	☼	141	17 - 141	15	56
Aroclor-1260	230	U	460	576		ug/Kg	☼	125	19 - 137	6	55

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*92*		*13 - 134*
DCB Decachlorobiphenyl	*107*		*10 - 155*

Lab Sample ID: MB 240-225789/10-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226057 — **Prep Batch: 225789**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1
Aroclor-1221	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1
Aroclor-1232	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1
Aroclor-1242	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1
Aroclor-1248	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1
Aroclor-1254	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1
Aroclor-1260	33	U	33		ug/Kg		04/13/16 10:05	04/15/16 12:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*57*		*13 - 134*	*04/13/16 10:05*	*04/15/16 12:27*	*1*
DCB Decachlorobiphenyl	*56*		*10 - 155*	*04/13/16 10:05*	*04/15/16 12:27*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 240-225789/11-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226057 — **Prep Batch: 225789**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			333	183		ug/Kg		55	51 - 120		
Aroclor-1260			333	163		ug/Kg		49	48 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*59*		*13 - 134*
DCB Decachlorobiphenyl	*51*		*10 - 155*

Lab Sample ID: 240-63371-30 MS — **Client Sample ID: SO-040916-JN-082**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226262 — **Prep Batch: 225789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016	2300	U	463	24800		ug/Kg	☼	NC	17 - 141		
Aroclor-1260	2300	U	463	2300	U	ug/Kg	☼	NC	19 - 137		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*108*		*13 - 134*
DCB Decachlorobiphenyl	*110*		*10 - 155*

Lab Sample ID: 240-63371-30 MSD — **Client Sample ID: SO-040916-JN-082**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 226262 — **Prep Batch: 225789**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor-1016	2300	U	463	16300		ug/Kg	☼	NC	17 - 141	41	56
Aroclor-1260	2300	U	463	2300	U	ug/Kg	☼	NC	19 - 137	29	55

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*106*		*13 - 134*
DCB Decachlorobiphenyl	*117*		*10 - 155*

Method: Moisture - Percent Moisture

Lab Sample ID: 240-63371-2 DU — **Client Sample ID: SO-040916-JN-056**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	77.3			77.3		%				0.07	20
Percent Moisture	22.7			22.7		%				0.2	20

Lab Sample ID: 240-63371-11 DU — **Client Sample ID: SO-040916-JN-065**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	74.2			75.9		%				2	20

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 240-63371-11 DU — **Client Sample ID: SO-040916-JN-065**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	25.8			24.1		%				6	20

Lab Sample ID: 240-63371-15 DU — **Client Sample ID: SO-040916-JN-068**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	72.2			73.6		%				2	20
Percent Moisture	27.8			26.4		%				5	20

Lab Sample ID: 240-63371-20 DU — **Client Sample ID: SO-040916-JN-073**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	72.4			70.3		%				3	20
Percent Moisture	27.6			29.7		%				8	20

Lab Sample ID: 240-63371-30 DU — **Client Sample ID: SO-040916-JN-082**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 225661

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	71.5			69.7		%				2	20
Percent Moisture	28.5			30.3		%				6	20

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(13-134)	(13-134)	(10-155)	(10-155)
240-63371-2	SO-040916-JN-056	49		70	
240-63371-3	SO-040916-JN-057	92		94	
240-63371-4	SO-040916-JN-058	91		99	
240-63371-5	SO-040916-JN-059	78		87	
240-63371-6	SO-040916-JN-060	109		192 X	
240-63371-7	SO-040916-JN-061	87		92	
240-63371-8	SO-040916-JN-062	89		89	
240-63371-9	SO-040916-JN-063	56		66	
240-63371-10	SO-040916-JN-064	50		54	
240-63371-11	SO-040916-JN-065	51		60	
240-63371-12	SO-040916-JN-066	79		86	
240-63371-14	SO-040916-JN-067	91		74	
240-63371-15	SO-040916-JN-068	91		113	
240-63371-15 MS	SO-040916-JN-068	85		96	
240-63371-15 MSD	SO-040916-JN-068	92		107	
240-63371-16	SO-040916-JN-069	55		53	
240-63371-17	SO-040916-JN-070	84		85	
240-63371-18	SO-040916-JN-071	48		64	
240-63371-19	SO-040916-JN-072	58		65	
240-63371-20	SO-040916-JN-073	17		26	
240-63371-21	SO-040916-JN-074	63		156 X	
240-63371-22	SO-040916-JN-075	20		19	
240-63371-23	SO-040916-JN-076	71	73	236 X	92
240-63371-24	SO-040916-JN-077	128		144	
240-63371-26	SO-040916-JN-078	107		109	
240-63371-27	SO-040916-JN-079		92		168 X
240-63371-28	SO-040916-JN-080	98		95	
240-63371-29	SO-040916-JN-081		69		102
240-63371-30	SO-040916-JN-082		79		127
240-63371-30 MS	SO-040916-JN-082		108		110
240-63371-30 MSD	SO-040916-JN-082		106		117
LCS 240-225756/24-A	Lab Control Sample	46		68	
LCS 240-225789/11-A	Lab Control Sample	59		51	
MB 240-225756/23-A	Method Blank	53		81	
MB 240-225789/10-A	Method Blank	57		56	

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(21-124)	(10-131)
240-63371-13	EB-040916-JN-001	45	25
240-63371-25	EB-040916-JN-002	42	31
240-63371-31	EB-040916-JN-003	43	35

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**TCX2 (21-124)**	**DCB2 (10-131)**						
LCS 240-225724/6-A	Lab Control Sample	53	58						
MB 240-225724/5-A	Method Blank	53	59						

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SE-040916-JN-055 — Lab Sample ID: 240-63371-1

Date Collected: 04/09/16 10:15 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	103595	04/13/16 13:29	VTP	TAL BUR

Client Sample ID: SO-040916-JN-056 — Lab Sample ID: 240-63371-2

Date Collected: 04/09/16 11:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-056 — Lab Sample ID: 240-63371-2

Date Collected: 04/09/16 11:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 77.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226189	04/15/16 20:24	LSH	TAL CAN

Client Sample ID: SO-040916-JN-057 — Lab Sample ID: 240-63371-3

Date Collected: 04/09/16 11:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-057 — Lab Sample ID: 240-63371-3

Date Collected: 04/09/16 11:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 71.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		10	226189	04/15/16 20:43	LSH	TAL CAN

Client Sample ID: SO-040916-JN-058 — Lab Sample ID: 240-63371-4

Date Collected: 04/09/16 12:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-058 — Lab Sample ID: 240-63371-4

Date Collected: 04/09/16 12:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 74.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		10	226189	04/15/16 21:01	LSH	TAL CAN

Client Sample ID: SO-040916-JN-059 — Lab Sample ID: 240-63371-5

Date Collected: 04/09/16 12:25 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-059 — Lab Sample ID: 240-63371-5

Date Collected: 04/09/16 12:25 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 71.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/15/16 21:19	LSH	TAL CAN

Client Sample ID: SO-040916-JN-060 — Lab Sample ID: 240-63371-6

Date Collected: 04/09/16 12:35 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-060 — Lab Sample ID: 240-63371-6

Date Collected: 04/09/16 12:35 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 77.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		10	226189	04/15/16 21:38	LSH	TAL CAN

Client Sample ID: SO-040916-JN-061 — Lab Sample ID: 240-63371-7

Date Collected: 04/09/16 12:40 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-061 — Lab Sample ID: 240-63371-7

Date Collected: 04/09/16 12:40 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 71.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/15/16 21:56	LSH	TAL CAN

Client Sample ID: SO-040916-JN-062 — Lab Sample ID: 240-63371-8

Date Collected: 04/09/16 12:45 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-062 — Lab Sample ID: 240-63371-8

Date Collected: 04/09/16 12:45 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 73.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/15/16 22:15	LSH	TAL CAN

Client Sample ID: SO-040916-JN-063 — Lab Sample ID: 240-63371-9

Date Collected: 04/09/16 12:55 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-063 — Lab Sample ID: 240-63371-9

Date Collected: 04/09/16 12:55 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 78.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226189	04/15/16 22:33	LSH	TAL CAN

Client Sample ID: SO-040916-JN-064 — Lab Sample ID: 240-63371-10

Date Collected: 04/09/16 13:00 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-064 — Lab Sample ID: 240-63371-10

Date Collected: 04/09/16 13:00 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 67.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/15/16 22:52	LSH	TAL CAN

Client Sample ID: SO-040916-JN-065 — Lab Sample ID: 240-63371-11

Date Collected: 04/09/16 13:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-065 — Lab Sample ID: 240-63371-11

Date Collected: 04/09/16 13:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 74.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226189	04/15/16 23:10	LSH	TAL CAN

Client Sample ID: SO-040916-JN-066 — Lab Sample ID: 240-63371-12

Date Collected: 04/09/16 13:15 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 13:52	BLW	TAL CAN

Client Sample ID: SO-040916-JN-066 — Lab Sample ID: 240-63371-12

Date Collected: 04/09/16 13:15 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 74.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/15/16 23:28	LSH	TAL CAN

Client Sample ID: EB-040916-JN-001 — Lab Sample ID: 240-63371-13

Date Collected: 04/09/16 13:20 — **Matrix: Water**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			225724	04/13/16 05:07	CSC	TAL CAN
Total/NA	Analysis	8082		1	226060	04/15/16 10:13	KMG	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-067 — Lab Sample ID: 240-63371-14

Date Collected: 04/09/16 13:35 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-067 — Lab Sample ID: 240-63371-14

Date Collected: 04/09/16 13:35 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 64.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		10	226189	04/15/16 23:47	LSH	TAL CAN

Client Sample ID: SO-040916-JN-068 — Lab Sample ID: 240-63371-15

Date Collected: 04/09/16 13:40 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-068 — Lab Sample ID: 240-63371-15

Date Collected: 04/09/16 13:40 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 72.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/16/16 00:05	LSH	TAL CAN

Client Sample ID: SO-040916-JN-069 — Lab Sample ID: 240-63371-16

Date Collected: 04/09/16 13:50 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-069 — Lab Sample ID: 240-63371-16

Date Collected: 04/09/16 13:50 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 83.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/16/16 01:00	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-070 — Lab Sample ID: 240-63371-17

Date Collected: 04/09/16 13:55 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-070 — Lab Sample ID: 240-63371-17

Date Collected: 04/09/16 13:55 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 70.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		5	226189	04/16/16 01:19	LSH	TAL CAN

Client Sample ID: SO-040916-JN-071 — Lab Sample ID: 240-63371-18

Date Collected: 04/09/16 14:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-071 — Lab Sample ID: 240-63371-18

Date Collected: 04/09/16 14:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 73.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226189	04/16/16 01:37	LSH	TAL CAN

Client Sample ID: SO-040916-JN-072 — Lab Sample ID: 240-63371-19

Date Collected: 04/09/16 14:15 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-072 — Lab Sample ID: 240-63371-19

Date Collected: 04/09/16 14:15 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 73.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226805	04/20/16 19:26	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-073 — Lab Sample ID: 240-63371-20

Date Collected: 04/09/16 14:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-073 — Lab Sample ID: 240-63371-20

Date Collected: 04/09/16 14:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 72.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226805	04/20/16 19:43	LSH	TAL CAN

Client Sample ID: SO-040916-JN-074 — Lab Sample ID: 240-63371-21

Date Collected: 04/09/16 14:30 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-074 — Lab Sample ID: 240-63371-21

Date Collected: 04/09/16 14:30 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 72.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226805	04/20/16 20:01	LSH	TAL CAN

Client Sample ID: SO-040916-JN-075 — Lab Sample ID: 240-63371-22

Date Collected: 04/09/16 14:35 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-075 — Lab Sample ID: 240-63371-22

Date Collected: 04/09/16 14:35 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 70.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225756	04/13/16 08:19	SDE	TAL CAN
Total/NA	Analysis	8082		1	226805	04/20/16 20:19	LSH	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-076 — Lab Sample ID: 240-63371-23

Date Collected: 04/09/16 14:45 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-076 — Lab Sample ID: 240-63371-23

Date Collected: 04/09/16 14:45 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 72.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		1	226262	04/18/16 14:09	LSH	TAL CAN

Client Sample ID: SO-040916-JN-077 — Lab Sample ID: 240-63371-24

Date Collected: 04/09/16 14:50 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-077 — Lab Sample ID: 240-63371-24

Date Collected: 04/09/16 14:50 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 75.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		10	226057	04/15/16 10:01	LSH	TAL CAN

Client Sample ID: EB-040916-JN-002 — Lab Sample ID: 240-63371-25

Date Collected: 04/09/16 14:55 — **Matrix: Water**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			225724	04/13/16 05:07	CSC	TAL CAN
Total/NA	Analysis	8082		1	226060	04/15/16 10:31	KMG	TAL CAN

Client Sample ID: SO-040916-JN-078 — Lab Sample ID: 240-63371-26

Date Collected: 04/09/16 15:05 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-078 — Lab Sample ID: 240-63371-26

Date Collected: 04/09/16 15:05 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		20	226057	04/15/16 10:20	LSH	TAL CAN

Client Sample ID: SO-040916-JN-079 — Lab Sample ID: 240-63371-27

Date Collected: 04/09/16 15:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-079 — Lab Sample ID: 240-63371-27

Date Collected: 04/09/16 15:10 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 67.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		20	226262	04/18/16 14:28	LSH	TAL CAN

Client Sample ID: SO-040916-JN-080 — Lab Sample ID: 240-63371-28

Date Collected: 04/09/16 15:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-080 — Lab Sample ID: 240-63371-28

Date Collected: 04/09/16 15:20 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 79.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		5	226057	04/15/16 10:56	LSH	TAL CAN

Client Sample ID: SO-040916-JN-081 — Lab Sample ID: 240-63371-29

Date Collected: 04/09/16 15:25 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Client Sample ID: SO-040916-JN-081 — Lab Sample ID: 240-63371-29

Date Collected: 04/09/16 15:25 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 83.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		5	226262	04/18/16 14:46	LSH	TAL CAN

Client Sample ID: SO-040916-JN-082 — Lab Sample ID: 240-63371-30

Date Collected: 04/09/16 15:30 — **Matrix: Solid**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	225661	04/12/16 16:48	BLW	TAL CAN

Client Sample ID: SO-040916-JN-082 — Lab Sample ID: 240-63371-30

Date Collected: 04/09/16 15:30 — **Matrix: Solid**
Date Received: 04/12/16 09:45 — **Percent Solids: 71.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			225789	04/13/16 10:05	SDE	TAL CAN
Total/NA	Analysis	8082		50	226262	04/18/16 15:04	LSH	TAL CAN

Client Sample ID: EB-040916-JN-003 — Lab Sample ID: 240-63371-31

Date Collected: 04/09/16 15:45 — **Matrix: Water**
Date Received: 04/12/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			225724	04/13/16 05:07	CSC	TAL CAN
Total/NA	Analysis	8082		1	226060	04/15/16 10:48	KMG	TAL CAN

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: GHD Services Inc.
Project/Site: 13968, GM Bedford, SSOW# E117018-002

TestAmerica Job ID: 240-63371-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16 *
Illinois	NELAP	5	200004	07-31-16 *
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16 *
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-17
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-17
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-17
Florida	NELAP	4	E87467	06-30-16
L-A-B	DoD ELAP		L2336	02-26-17
Maine	State Program	1	VT00008	04-17-17
Minnesota	NELAP	5	050-999-436	12-31-16
New Hampshire	NELAP	1	2006	12-18-16
New Jersey	NELAP	2	VT972	06-30-16
New York	NELAP	2	10391	04-01-17 *
Pennsylvania	NELAP	3	68-00489	04-30-16 *
Rhode Island	State Program	1	LAO00298	12-30-16
US Fish & Wildlife	Federal		LE-058448-0	10-31-16
USDA	Federal		P330-11-00093	10-28-16
Vermont	State Program	1	VT-4000	12-31-16
Virginia	NELAP	3	460209	12-14-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-63371 Chain of Custody

GM BEAM ENCORE

0.8/C0.3
1.4/C0.9

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 1 OF 2

☐ eCOC in Use

ID: # C#20160409_144830

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Preservative

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	/Grain Size	/PCBs, Total	Remarks/Lab ID
1	SE-040916-JN-055	SE	04/09/16	10:15	1	X		
2	SO-040916-JN-056	SO	04/09/16	11:10	1		X	
3	SO-040916-JN-057	SO	04/09/16	11:20	1		X	
4	SO-040916-JN-058	SO	04/09/16	12:20	1		X	
5	SO-040916-JN-059	SO	04/09/16	12:25	1		X	
6	SO-040916-JN-060	SO	04/09/16	12:35	1		X	
7	SO-040916-JN-061	SO	04/09/16	12:40	1		X	
8	SO-040916-JN-062	SO	04/09/16	12:45	1		X	
9	SO-040916-JN-063	SO	04/09/16	12:55	1		X	
10	SO-040916-JN-064	SO	04/09/16	13:00	1		X	
11	SO-040916-JN-065	SO	04/09/16	13:10	1		X	
12	SO-040916-JN-066	SO	04/09/16	13:15	1		X	
13	EB-040916-JN-001	SOQ	04/09/16	13:20	2		X	
14	SO-040916-JN-067	SO	04/09/16	13:35	1		X	
15	SO-040916-JN-068	SO	04/09/16	13:40	2		X	MS/MSD
16	SO-040916-JN-069	SO	04/09/16	13:50	1		X	
17	SO-040916-JN-070	SO	04/09/16	13:55	1		X	
18	SO-040916-JN-071	SO	04/09/16	14:10	1		X	
	TOTAL NUMBER OF CONTAINERS				20			

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	2	Jeff Nichols / GHD	04/11/16	11:00	[signature]	4.12.16	945
AIRBILL NO: 8682 8736 4759 / 4760							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Fully Executed Copy

Sampler Name: Jeffrey M. Nichols

Sampler Signature: [signature] Date: 04/11/16

REV. 0 (9/04)

4/22/2016

CHAIN-OF-CUSTODY / Analytical Request Document

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

☐ eCOC in Use

ID: # C#20160409_150227

SSOW Ref. Code: E117018-002

Required Client Information:

GHD	Report To:
Address:	Copy To: Rawa Fleisher
320 GM Drive	Invoice To:
Bedford, Indiana 47421	P.O.:
Phone: (812) 277-8960	Project Name: GM - BEDFORD
Fax: (812) 277-8980	Project Number: 013968
E-mail:	

Laboratory: Test America	
Laboratory Location: North Canton, OH	
Laboratory Contact: Denise Heckler	
Requested Due Date:	TAT: 14 Day
QA/QC Requirements:	

Valid Matrix Codes:
WG Groundwater
WB Borehole Water
WS Surface Water
SO Soil
SE Sediment
See Back for Additional Codes

Preservative

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# Containers	/PCBs, Total	Remarks/Lab ID
1	SO-040916-JN-072	SO	04/09/16	14:15	1	X	
2	SO-040916-JN-073	SO	04/09/16	14:20	1	X	
3	SO-040916-JN-074	SO	04/09/16	14:30	1	X	
4	SO-040916-JN-075	SO	04/09/16	14:35	1	X	
5	SO-040916-JN-076	SO	04/09/16	14:45	1	X	
6	SO-040916-JN-077	SO	04/09/16	14:50	1	X	
7	EB-040916-JN-002	SOQ	04/09/16	14:55	2	X	
8	SO-040916-JN-078	SO	04/09/16	15:05	1	X	
9	SO-040916-JN-079	SO	04/09/16	15:10	1	X	
10	SO-040916-JN-080	SO	04/09/16	15:20	1	X	
11	SO-040916-JN-081	SO	04/09/16	15:25	1	X	
12	SO-040916-JN-082	SO	04/09/16	15:30	2	X	MS/MSD
13	EB-040916-JN-003	SOQ	04/09/16	15:45	2	X	
14							
15							
16							
17							
18							
	TOTAL NUMBER OF CONTAINERS				16		

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
FedEx	2	Jeff Nichols / GHD	04/11/16	11:00		4-12-16	945
AIRBILL NO: 8682 8736 4759 / 4760							

Sample Condition

Temp in °C	
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Receiving Laboratory Copy

Sampler Name: Jeffrey M. Nichols

Sampler Signature: Date: 04/11/16

REV. 0 (9/04)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 63391
Canton Facility

Client GHD Site Name _____ Cooler unpacked by:

Cooler Received on 4-12-16 Opened on 4-12-16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 4 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :**
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	8	0.8	0.3	ice
↓	↓	1.4	0.9	↓

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-63371-1

Login Number: 63371
List Number: 2
Creator: Lavigne III, Scott M

List Source: TestAmerica Burlington
List Creation: 04/13/16 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix F
Treatability Study Memorandum

Appendix F.1
GHD Innovative Technologies Group

Memorandum

Privileged and Confidential
Prepared at the Request of Counsel

To:	Glenn Turchan, Shelly Deitner	Ref. No.:	013968
From:	Sophia Dore/Christa Bucior/adh/3	Date:	June 23, 2016
cc:	Rick Hoekstra, Paul Gallaway		

Re: Storm Water Pond Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

1. Introduction

GHD Services Inc. (GHD) is currently evaluating options for dredging Polychlorinated Biphenyl (PCB) impacted sediments from the Storm Water Pond at the General Motors, LLC (GM) Castings, Engines, and Components (CET) Bedford Facility located in Bedford, Indiana (Site). Previous sediment sampling activities were conducted in the Storm Water Pond during the initial Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) in April 2002, which included collection of two sediment samples from two locations in the Pond, and following a 2014 inspection of the storm sewer (which discharges to the southwest corner of the Pond) in May 2014, which included collection of 16 soil/sediment samples from the Pond and 9 soil samples from along the southern banks. An area with sample results greater than 50 parts per million (ppm) PCBs was identified in the southern portion of the Storm Water Pond. A laboratory treatability study was performed to assess dewatering options for the sediment. This memo describes the results of the laboratory treatability study.

1.1 Solidification

Solidification converts waste into a less soluble form and prevents leaching. One or a combination of solidifying agents such as Portland cement, lime, and cement kiln dust, as well as bulking agents such as fly ash, sawdust, or sand are added to treat the waste. The process of hardening or setting is a chemical reaction called hydration. When water is added to the solidifying agent, it forms a slurry or gel that coats the surfaces of the waste and fills the voids. Soon after the waste, water, and the solidifying agent are combined, the mixture starts to harden. During hydration, a node forms on the surface of each solidifying agent particle. The node grows and expands until it links up with nodes from other solidifying agent particles or adheres to adjacent aggregates. The solid matrix encapsulates metals present within the solid matrix where they are no longer available and cannot leach out. In this way, the metals are immobilized and are no longer considered a risk. In addition, the reagent strengthens the material for constructability reasons to add in the logistics for an excavation and disposal remedy.

2. Solidification Treatability Study

2.1 Objectives

The objectives of this laboratory study were to gather the data necessary to:

i) Determine the effectiveness of gravity dewatering and mechanical dewatering by filter press

ii) Determine the effectiveness of adding solidification reagents as a means of meeting disposal facility requirements

iii) Determine the optimum reagents

iv) Determine the optimum doses of reagents

2.2 Sample Acquisition

Bulk samples of sediment were collected from the Site to support bench scale treatability testing of sediments. Approximately 20 gallons of sediment were collected and transported to GHD's laboratory in Niagara Falls, New York. The sample arrived at the Laboratory on April 12, 2016.

2.3 Task 1: Initial Characterization

Upon arrival at the laboratory, the sample was analyzed for the following parameters:

- Grain Size
- Percent Moisture
- Total Organic Matter
- Paint Filter Test

The initial results of the sediment showed 47.6 percent moisture and 6.53 percent total organic matter. Likely due to the organic content of the sediment, the water was entrained in the sediment to form a substance resembling "chocolate mousse". The material passed the paint filter test. The grain size analysis showed that the sediment was largely composed of silt and clay at 0.9 percent gravel, 27.5 percent sand, 47.3 percent silt, and 24.4 percent clay. These data are shown in Table 1.

2.4 Task 2: Dewatering of Dredged Sediment

Laboratory testing included gravity dewatering and mechanical dewatering. The objective of the testing was to identify the most cost-effective method(s) of making the sediment suitable for disposal at appropriately permitted off-Site landfills.

The gravity dewatering tests were set up using 100 grams (g) of sediment placed on a 60-micron (µm) size filter paper. After 0.5, 1, 2, 4, and 6 hours, the samples were analyzed for percent moisture and the paint filter test. The amount of water collected was also recorded.

After 0.5 hour of gravity filtration, only 0.45 milliliter (mL) of water was collected, and the percent moisture was at 48.1 percent. After 1 hour, 0.6 mL of water was collected, and the percent moisture was decreased to 47 percent. As time went on, more water was collected, and the percent moisture continued to decrease. After 6 hours, 1.4 mL of water were collected, and the percent moisture was down to 44.2 percent. All the samples passed the paint filter test. These data are shown in Table 2.

The mechanical dewatering tests were set up to simulate the effect of a filter press. The sets were performed using 100 g of sediment placed on a 20-µm filter paper and hooked up to a vacuum filtration system. After 5, 10, and 15 minutes, samples were analyzed for percent moisture and the paint filter test. The amount of water collected was also recorded.

After 5 minutes of vacuum filtration, 8.6 mL of water were collected, and the percent moisture was decreased to 40.8 percent. After 10 minutes, 14.8 mL of water were collected, and the percent moisture decreased to 37.7 percent. Finally after 15 minutes, 17.8 mL of water were collected, and the percent moisture was further decreased to 34.6 percent. These data are shown in Table 3. The filter cake produced disengaged readily from the filter and formed a solid cake.

2.5 Task 3: Solidification of Dredged Sediment

Solidification utilizing locally sourced pozzolanic reagents, lime, cement kiln dust, fly ash, and Portland cement tests were completed in triplicate. Three dosages of each solidification reagent were blended with the sediment as follows:

- 1 percent Lime
- 2 percent Lime
- 3 percent Lime
- 1 percent Cement Kiln Dust
- 2 percent Cement Kiln Dust
- 3 percent Cement Kiln Dust
- 1 percent Fly Ash
- 2 percent Fly Ash
- 3 percent Fly Ash
- 1 percent Portland Cement
- 2 percent Portland Cement
- 3 percent Portland Cement

The temperature of the sediments was continuously monitored throughout the treatability study to determine if any generation of heat is observed due to reagent addition and possible off-gassing of vapors. Following the blending, each sample's hardness was measured by the pocket penetrometer, and the hardest samples were sent for unconfined compressive strength.

The results of the solidification show an increase in temperature with every test. The lime tests showed the largest increase in temperature from 10°C to 20°C. After 2 days, no increase in hardness was observed when the samples were tested using a pocket penetrometer. After 7 days, increases were observed in samples treated with 3 percent lime, 2 percent Portland cement, and 3 percent Portland cement; however, only the samples treated with 3 percent Portland cement had pocket penetrometer hardness values greater than 1 pound per square inch (psi). These samples were sent to a geotechnical laboratory to be analyzed for unconfined compressive strength.

None of the samples sent for analysis of unconfined compressive strength was solid enough to hold together once removed from the plastic mold; therefore, no unconfined compressive strength was measured in any of these samples. However, the solidification agents did dry the samples. All of the samples appear to be able to be handled by traditional construction equipment (i.e., backhoe). The sample treated with 3 percent Portland cement did appear to be drier than the samples treated with 3 percent lime and 2 percent Portland cement. These data are shown in Table 4 and Figures 1-3.

2.6 Task 4: Wastewater Characterization

Concurrently with the completion of the sediment treatability testing, wastewater was generated by vacuum filtration of the sediment. Wastewater generated was collected and analyzed for PCBs. The results of the PCB testing showed 9.6 micrograms per liter (µg/L) of total PCB-1242. All dissolved PCB were below their analytical detection limit of 0.2 µg/L. These data suggest that the PCB present are bound to the particulates and can be removed by filtration.

3. Summary

- The sample passed the paint filter test without treatment (allowing landfill disposal).
- Six hours of gravity filtration decreased the percent moisture of the sediment from 48 percent to 44 percent and passed the paint filter test.
- Fifteen minutes of mechanical filtration decreased the percent moisture of the sediment from 48 percent to 34.6 percent and passed the paint filter test.
- Mechanical filtration (i.e., filter press) performed better than gravity filtration.
- The results of the solidification tests show that marginal increases in temperature occurred during mixing.
- Treatment with lime caused the greatest increase in temperature with 3 percent lime causing in increase in temperature of greater than 10°C.
- Treatment with 3 percent lime, 2 percent Portland cement, and 3 percent Portland cement resulted in the greatest increase in hardness as measured by a pocket penetrometer.
- None of the samples held together well enough to be measured for unconfined compressive strength; however, the stabilization agents did dry the sediment to produce a material that appears to be able to be handled by traditional construction equipment such as a backhoe.

- Three percent Portland cement appeared to dry the samples better than the 3 percent lime and 2 percent Portland cement.
- Wastewater characterization for PCB showed 9.6 µg/L of total PCB-1242; all dissolved PCB were below the 0.2-µg/L analytical detection limit.
- The wastewater data suggest that the PCB present are bound to the particulate and can be removed by filtration.

4. Conclusions and Recommendations

The results of the study showed that the untreated sample would pass the paint filter test although it has a high moisture content. Gravity dewatering was not effective for reducing the moisture content; however, mechanical dewatering (filter press) dewatered the material and produced a solid filter cake. Solidification treatment with 3 percent lime or 2 or 3 percent Portland cement produced a material that had a measurable hardness when measured by pocket penetrometer and that appeared to be dry. This material did not hold together well enough to be measured for unconfined compressive strength. Based on this study, treatment using Portland cement would be the recommended option because it produced the greatest hardness without causing heat generation for constructability issues. Two percent Portland cement is the recommended dose; however, if the disposal facility requires a hardness of greater than 1 psi, then the dose would be increased to 3 percent Portland cement.

Figure 1.
Triplicate Samples Treated with 3 Percent Lime
Storm Water Pond Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Figure 2.
Triplicate Samples Treated with 2 Percent Portland Cement Storm Water Pond Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

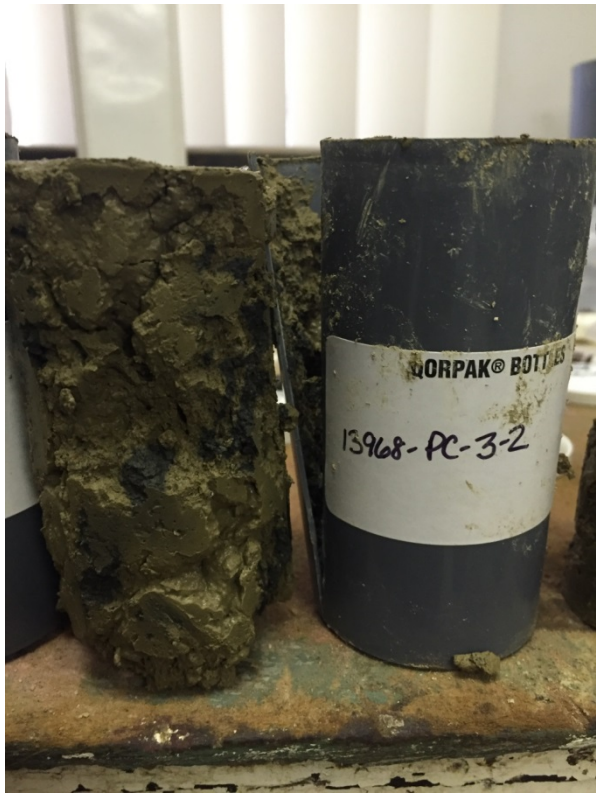


Figure 3.
Triplicate Samples Treated with 3 Percent Portland Cement Storm Water Pond Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Table 1

Initial Sludge Analyses
Storm Water Lagoon Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Parameters	**Units**	**SE-040916-JN-083**
General Chemistry		
Percent Moisture	%	47.6
Total Organic Matter	%	6.53
Paint Filter Test	Pass/Fail	Pass
Grain Size		
Percent Gravel	%	0.900
Percent Sand	%	27.5
Percent Silt	%	47.3
Percent Clay	%	24.4

Table 2

Gravity Dewatering Tests on Sludge
Storm Water Lagoon Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Parameters	**Units**	**0.5 hour**	**1 hour**	**2 hours**	**4 hours**	**6 hours**
Amount of Sample Used	g	100	100	100	100	100
General Chemistry						
Percent Moisture	%	48.1	47.0	45.7	45.6	44.2
Amount of Water Collected	mL	0.450	0.600	0.98	1.30	1.40
Paint Filter Test	Pass/Fail	Pass	Pass	Pass	Pass	Pass

Notes:

60-µm filter paper used with vacuum filtration

Table 3

Mechanical Dewatering Tests on Sludge
Storm Water Lagoon Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Parameters	**Units**	**5 min**	**10 min**	**15 min**
Amount of Sample Used	g	100	100	100
General Chemistry				
Percent Moisture	%	40.8	37.7	34.6
Amount of Water Collected	mL	8.60	14.8	17.8
Paint Filter Test	Pass/Fail	Pass	Pass	Pass

Notes:

20-µm filter paper used with vacuum filtration

Table 4

Stabilization Mixing Tests
Storm Water Lagoon Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Parameters	Units	1% Lime	2% Lime	3% Lime	1% CKD	2% CKD	3% CKD
Amount of Sample Used	g	1000	1000	1000	1000	1000	1000
Amount of Reagent Used	g	10	20	30	10	20	30
Initial Mixing Temp	C˚	8.1	8.8	9.5	10.1	12.6	14.2
Midpoint Mixing Temp	C˚	12.1	15.1	18.7	11.2	13.7	14.4
Final Mixing Temp	C˚	14.3	17.2	20.2	11.5	14	14.6
Mixing Time	min	5	5	5	5	5	5
Penetrometer Readings T=2 Days	psi	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0
Penetrometer Readings T=7 Days	psi	0 / 0 / 0	0 / 0 / 0	0.444 / 0.444 / 0.444	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0

Notes:

X / X / X - Triplicate values

Table 4

Stabilization Mixing Tests
Storm Water Lagoon Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Parameters	Units	1% Fly Ash	2% Fly Ash	3% Fly Ash	1% Cement	2% Cement	3% Cement
Amount of Sample Used	g	1000	1000	1000	1000	1000	1000
Amount of Reagent Used	g	10	20	30	10	20	30
Initial Mixing Temp	C˚	14.6	15.1	15.7	16.3	16.8	17.1
Midpoint Mixing Temp	C˚	14.9	15.5	16	17.3	17.7	17.9
Final Mixing Temp	C˚	15.1	15.6	16	17.4	17.8	18
Mixing Time	min	5	5	5	5	5	5
Penetrometer Readings T=2 Days	psi	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0
Penetrometer Readings T=7 Days	psi	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0.889 / 0.667 / 0.667	1.11 / 1.33 / 1.33

Notes:

X / X / X - Triplicate values

Table 5

Wastewater Characterization Results
Storm Water Lagoon Sediment Treatability Study
General Motors, LLC RCRA Corrective Action
GM CET Bedford Facility
Bedford, Indiana

Parameters	Units	Total PCB	Dissolved PCB
Polychlorinated Biphenyls (PCBs)			
PCB-1016	µg/L	ND (0.2)	ND (0.2)
PCB-1221	µg/L	ND (0.2)	ND (0.2)
PCB-1232	µg/L	ND (0.2)	ND (0.2)
PCB-1242	µg/L	9.60	ND (0.2)
PCB-1248	µg/L	ND (0.2)	ND (0.2)
PCB-1254	µg/L	ND (0.2)	ND (0.2)
PCB-1260	µg/L	ND (0.2)	ND (0.2)

Notes:

ND (x) - Not detected at reporting limit
- Dissolved sample was filtered through a 0.45-µm filter by the lab

Appendix F.2
Sevenson Environmental Services

SEVENSON ENVIRONMENTAL SERVICES, INC. MASS BALANCE
Sediment Processing-Filter Presses

Project Name: GM Bedford, IN Storter Pond
Date: 5/17/2016
Revision: 1

Insitu Material

Volume, cubic yards	7,600
Oven Dry Solids, %	48.31%
Specific Gravity	1.45
Density, tons per cubic yard	1.22
Silt and Finer Mass, dry weight	100.00%
Sand and Coarser Mass, dry weight	0.00%

Filter Press Inputs

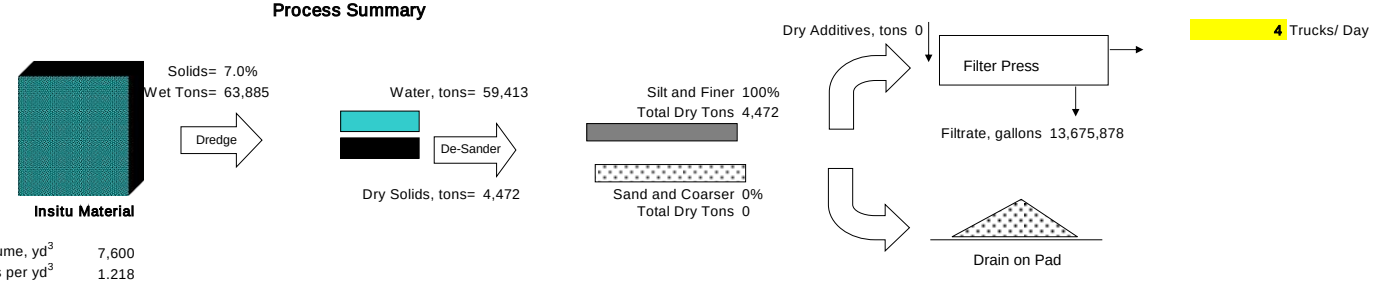
Silt and Finer Mass, Dry tons	4,472
Cake Oven Dry Solids, %	65.22%
Cake Density, tons per cubic yard	1.39
Cycle Time, minutes	100
On- Line Factor, %	85%
Press Size, cubic feet per drop	219
Number of Presses	2.00
Feed Oven Dry Solids, %	7.00%
Available Operating Hours, hours/day	10
Available Operating Days, days/week	5
Dry Additives, lbs per gallon	0
Filtrate Solids, ppm	50

Process Calculations

De-sander Material Removal, dry tons	0		
Gravity Drained Sand Dry Solids, %	80%		
De-sander Material Removal, wet tons	0		
Filter Cake Production, total wet tons	6,857		
Filter Cake Production, tons/operating day	115		
Operating Days, days	60	2.98	Months
Job Production Duration, weeks	11.92		
Filtrate+Drain Water Prod, gallons per day	229,368		
Filtrate+Drain Water Production total gallons	13,675,878		
Average Filtrate+Drain Water Prod (gpm)	450		
Designed WWT Water Production (gpm)	2000		
CY / Day Insitu	127		
Dry Tons / Day	75		

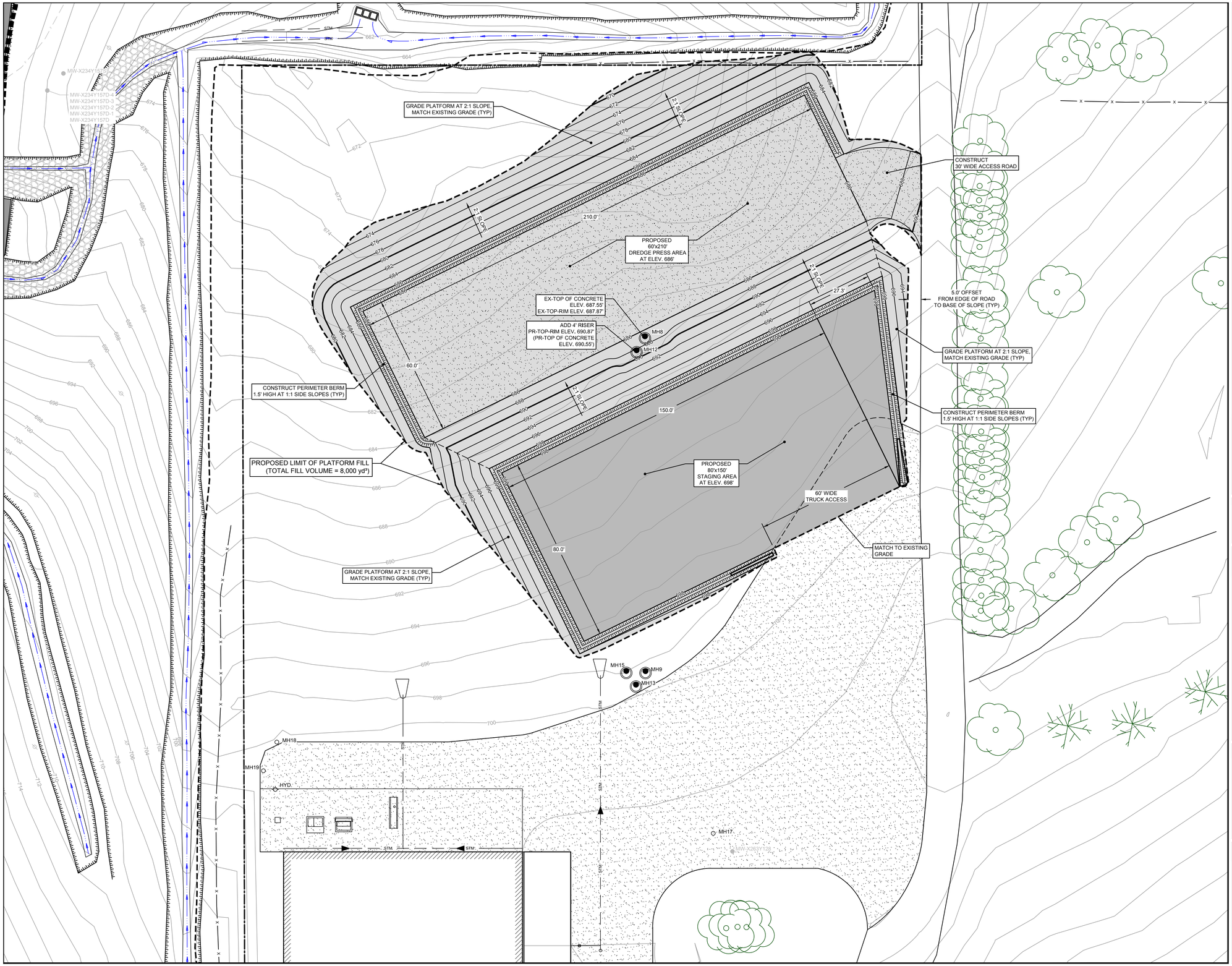
T&D Sediments	**6,857**	**Tons**
Total Cake & Sand	4,933	CY
Filter Cake	4,933	CY
Sand	0	CY

Process Summary



Volume, yd^3	7,600
Density, tons per yd^3	1.218
Dry Solids, %	48.31%
Dry Solids, tons	4,472
Sediment Mass, wet tons	9,257
T&D Sediments	6,857
Volume Reduction	26%

Appendix G
Sediment Processing and Staging Pad Design



Nº	Revision	Date	Initial

0 10 20 ft

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

Status	Date	Initial

GM CET BEDFORD FACILITY
BEDFORD, INDIANA

GROUNDWATER COLLECTION SYSTEM - BEDROCK PILOT TRENCH

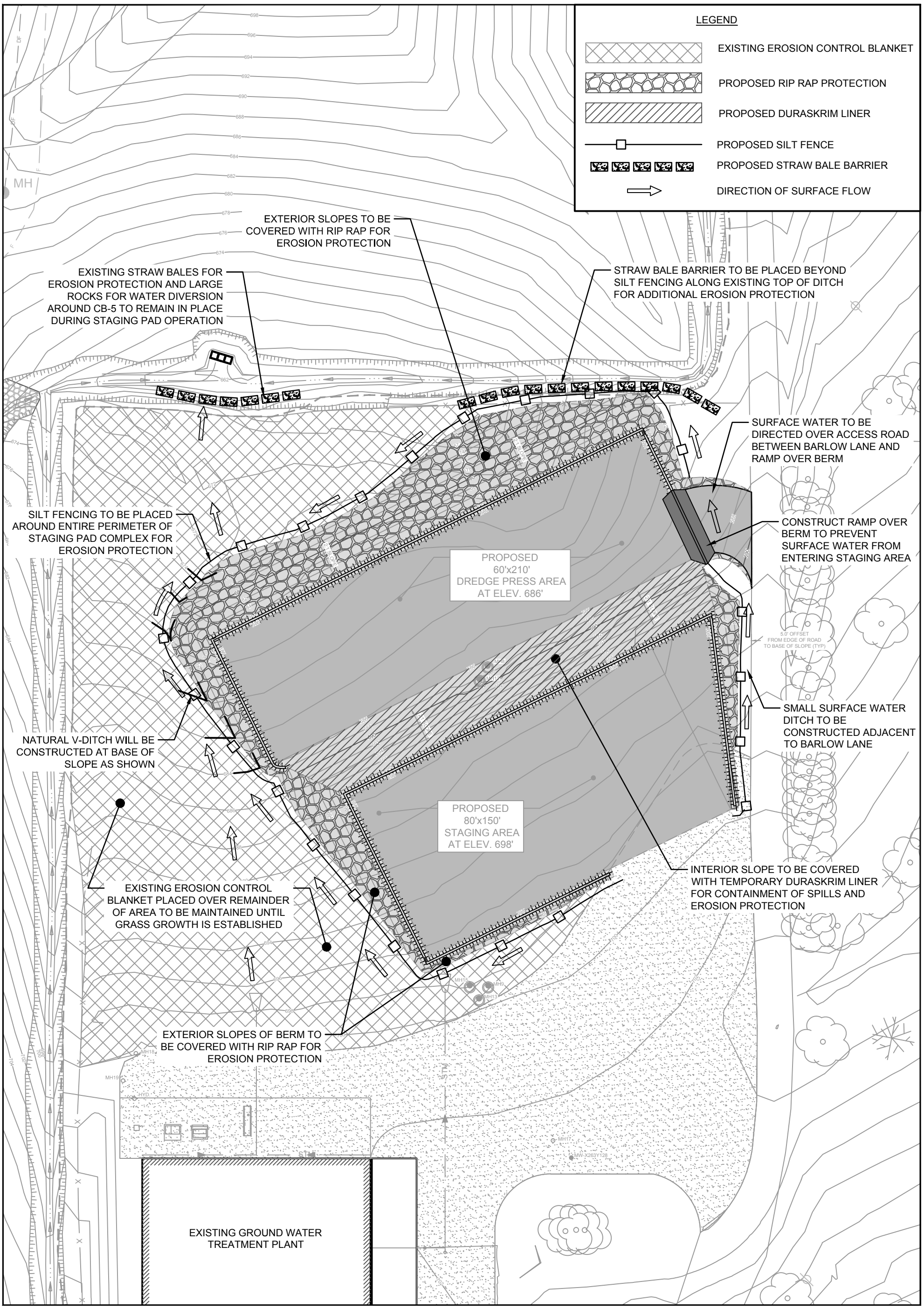
PROPOSED STAGING PLATFORM GRADING PLAN

GHD

Source Reference:

Project Manager:	Reviewed By:	Date:	
J.M.	C.R.H.	MAY 2016	
Scale: 1" = 20'	Project Nº: 13968-00	Report Nº: 365	Drawing Nº: C-18

13968-00(365)CI-WA018 MAY 12/2016



0 20 40ft

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13968-00
Jun 15, 2016

PROPOSED STAGING PLATFORM
SEDIMENT AND EROSION CONTROL PLAN

FIGURE 1

CAD File: P:\drawings\13000s\13968\13968-REPORTS\13968-00(365)\13968-00(365)GN\13968-00(365)GN-WA025.dwg

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