



August 14, 2019

Reference No. 058502

Mr. Zachary Sasnow
Corrective Action Project Manager
U.S. EPA, Region 5
77 West Jackson Boulevard DW-8J
Chicago, Illinois
U.S.A. 60604 3590

Dear Mr. Sasnow:

**Re: Amendment to the Approved Draft IM Work Plan to Remove PCB-impacted Sediments
EPA ID #MID 041 793 340
RACER Nodular Facility - Saginaw, Michigan**

This letter presents an Amendment to the approved draft interim measure work plan (Work Plan) dated December 2018 to remove PCB-impacted sediments from the secondary pond at Revitalizing Auto Communities Environmental Response Trust's (RACER) Former Nodular Industrial Lands (Site) in Saginaw, Michigan. This amendment was prepared in response to the United States Environmental Protection Agency (U.S. EPA) conditional approval of the Work Plan provided via email on February 14, 2019, that requested addition of some confirmation samples at the bottom of the excavations and elaboration on the means and methods for the removal of PCB-impacted sediments (>50 parts per million [ppm]), once the contractor was procured. A copy of the conditionally approved Work Plan is provided in Attachment A.

The following Figures and Attachments were prepared in support of the Amendment:

Figure 1 – Site Layout

Figure 2 – Approximate Confirmation Sample Locations

Attachment A – Draft IM Work Plan to Remove PCB-Impacted Sediments

Attachment B – On-Site fill characterization results memorandum

Attachment C – Work Plan Approval Form

1. Means and Methods for the Removal of PCB-Impacted Sediments

Job Site Services (JSS or Contractor) was selected to complete the scope of work. JSS will be working with subcontractors M.J. VanDamme, Inc., and US Ecology Michigan to complete Site preparation, sediment amendment, excavation, stockpiling, loading, transportation, and disposal of PCB impacted sediments.



1.1 Lowering of Secondary Pond Water Level

To facilitate removal of sediment, the water level in the secondary pond will be lowered. Initially, the Contractor will construct a dividing berm between the east and west segments of the secondary pond to minimize the amount of water to be discharged off-Site. The berm will be constructed using clean on-Site fill material. Samples of the on-Site fill were collected in December 2017 and submitted for analysis to characterize the fill. A copy of the characterization memorandum is provided in Attachment B. Following berm construction, the Contractor will commence dewatering using a submersible dewatering electric pump operated with a generator until the water elevation reaches approximately 577 feet (ft) above mean sea level (AMSL). The pump intake will be suspended from a pontoon boat to be placed within the secondary pond and a 6-inch discharge line suspended from pipe floats. The pump discharge rate will be a minimum of 60,000 gallons per hour (gph). The generator will be located on the access berm outside of the secondary pond extents. Once the water elevation has reached approximately 577 ft AMSL the submersible pump will be replaced with a smaller submersible pump with a 4-inch discharge line rated at a minimum of 30,000 gph which will reduce the disturbance of sediments within the pond prior to removal. Dewatering will proceed until the pond level reaches approximately 575 ft AMSL. The discharge water will be filtered through a silt bag to further reduce TSS before being discharged through Outfall 21. Once a water elevation of approximately 575 ft AMSL is achieved the sediments will be allowed to naturally drain for a minimum of 48 hours before excavation activities are initiated. The approximate location of the berm, the pontoon boat, and the outfall are presented on Figure 1.

Discharge samples will be collected in accordance with the NPDES permit (provided as part of the Work Plan – Attachment A).

1.2 Site Preparation

To prepare the Site, the Contractor will improve access to the work areas, as needed, by using a combination of imported stone and on-Site fill to improve the access along the top of the berms near excavation Area 1 and Area 2. Limited clearing and grubbing will also be necessary. All removed trees will be chipped and all removed vegetation will be left on-Site. Maintenance on the access roads will be performed as needed during excavation activities. Access to Area 1 will be extended into the pond footprint by use of crane mats. Crane mats are constructed of solid 8-inch by 8-inch, 10-inch by 10-inch or 12" by 12-inch timbers (douglas fir or hemlock) joined by steel bolts, providing ground stabilization under extreme weight. On-site fill may be placed under the crane mats to create a stable base for the crane mat road. No equipment will come in contact with impacted sediments during access improvements. Area 2 will be accessed from the existing dyke which may be improved with on-Site fill and/or crane mats, as needed. Figure 1 presents the location of the access roads and work areas.

The Contractor will also construct decontamination and stockpile pads as part of Site preparation activities. The decontamination and stockpile pads will be constructed near the former Wastewater Treatment Plant (WWTP) on the existing asphalt surface as one continuous pad with a dividing berm between the decontamination and stockpiling cells. Six inches of on-Site fill will be placed and graded to form containment and allow for collection of wastewater in collection sumps. A 30-mil liner will be placed on the fill and 8-inches of 6AA limestone will be placed on the liner as a barrier against potential tearing.



Water that collects in the sumps will be treated to below 0.5 micrograms per liter ($\mu\text{g/L}$) PCBs (as more fully described in Section 1.5). A low flow hot pressure washer will be utilized to decontaminate equipment. A poly 1,000-gallon storage tank will store fresh water for decontamination activities.

1.3 Proposed Measures to Minimize tracking of PCB-Impacted Sediment

The Contractor will make every effort to minimize equipment coming in contact with PCB impacted sediments. It is anticipated that the following equipment/parts of equipment will come into contact with sediments with PCB impacts >50 parts per million (ppm): bucket and arm of the amphibious excavator (excavator will work outside the PCB-impacted sediment areas > 50 ppm); beds of the off-road trucks, bucket of the loader used to load the highway trucks and sheet piling.

In addition, it is anticipated that the following equipment will come in contact with sediments impacted with PCBs < 50 ppm: dewatering pontoon boat and discharge line and the amphibious excavator tracks and body.

All equipment that comes into contact with sediments impacted with PCBs will be decontaminated in the decontamination pad located at the former WWTP. Note, however, a temporary decontamination station will be setup within the secondary pond extents to decontaminate the amphibious excavator tracks and body (only exposed to PCB-impacted sediment <50 ppm). Excess material on the excavator arm and bucket (exposed to PCB-impacted sediment >50 ppm) will also be removed prior to being transported to the decontamination pad.

During PCB-impacted sediment removal activities, when the amphibious excavator is tracking outside of Area 1 and Area 2, excess material on the bucket of the excavator will be removed and or the bucket will be stored on top of 6-mil plastic. In addition, while loading trucks the bucket swing path will be covered with 6-mil plastic and any spillage will be promptly cleaned up.

Highway trucks will be lined with plastic to prevent contamination of the vehicle and prevent spillage in the event of liquefaction during transportation and will be covered prior to leaving the Site.

1.4 Sediment Stabilization, Removal, and Stockpiling

The stabilization and removal of the elevated PCB-impacted sediment is planned as follows:

- After dewatering and prior to initiating removal of PCB-impacted sediments, the Contractor will isolate the sediments using vinyl sheet piling to prevent the surrounding material from sloughing into the work area thereby avoiding mixing of sediments, additional material removal, and unsafe working conditions. The sheet pile locations will be surveyed in the field by GHD to delineate the horizontal limit of Area 1 and Area 2 as presented in Figure 2.1 of the Work Plan. Sheet piling will be installed using an amphibious excavator fitted with a vibratory sheeting driver. Sheet piles will be 1.5 ft wide by 12-20 ft long with a target penetration depth of 4 ft. Sheet piling will also be used to subdivide Area 1 and Area 2 to allow for sequential stabilization and excavation of sediments. The sheet pile will be installed from outside of Area 1 and Area 2 to avoid tracking through PCB-impacted sediment >50 ppm.



- Sediment amendment (stabilization) and excavation will commence in Area 1. Area 1 is approximately 7,800 square feet in size with sediment depths that range from 3.1 ft to 11.0 ft. Area 1 has an approximate sediment volume of 1,850 cubic yards. Area 1 will be subdivided into 3 cells using sheet piling. Portland cement or similar product will be added to sediments to drive off excess water and to stabilize the material for the purpose of passing the paint filter test (for disposal purposes). Portland cement or similar product will first be added to sediments in the middle cell (Cell 1) using the amphibious excavator and mixed in-situ. Once mixing is complete the stabilized sediments will be allowed to rest for approximately 24 hours prior to excavation. While amending and excavating the sediment, the base of the amphibious excavator will remain outside of Area 1 and Area 2 to avoid tracking through PCB-impacted sediment >50 ppm, with only the arm and bucket entering Area 1 and Area 2.
- The amphibious excavator will be used to directly load the stabilized sediment from Cell 1 into off-road trucks, which will transport the sediment to the stockpile pad for further dewatering until the material passes the paint filter test. Excavation will continue vertically until native clay is reached within the containment. Based on sediment samples collected, the clay surface is very distinguishable from the overlying sediment. While loading, the base of the amphibious excavator will remain outside of Area 1 and Area 2 to avoid tracking through PCB-impacted sediment >50 ppm, with only the arm and bucket entering Area 1 and Area 2. Trucks will be positioned on the access road that was built next to Area 1 for direct loading. Trucks will be positioned on the existing ground surface near Area 2 for direct loading.
- Excavation of Area 1 will continue with the other two cells in sequence. Sediments from Cell 2 will be excavated and transferred to Cell 1 where it will be stabilized. The material will then be allowed to rest for 24 hours after which it will be transferred to the stockpile pad. Confirmation sampling of the floor will then be completed in the second cell (see additional details provided in next section). Cell 3 will then be completed in a similar manner. Once all material from Area 1 has been excavated floor confirmation sampling will be completed in Cell 1.
- Stockpiled material will be covered with a 6-mil HDPE liner whenever practical prior to off-Site transportation and disposal. Any water accumulation on the stockpile pad will be directed to a sump and pumped to the treatment system.
- Following excavation and confirmation sampling of Area 1 sheet piling will be removed and bulk material will be removed. The sheet piling will then be relocated to Area 2 and installed in the same orientation (>50 ppm side facing in). Excess sheet piling will be decontaminated and wipe samples will be collected. If wipe sample results are non-detect, the sheet piling will be retained by the Contactor for future use off-site. If PCBs are detected on the sheet piling excess sheet piling (not associated with Area 2) will be disposed of as TSCA waste and sheet piling used for Area 2 will be left in place following remediation.
- The amphibious excavator will then track through the secondary pond to Area 2. Sediment amendment and excavation in Area 2 will progress in a similar manner with Area 2 being subdivided into two cells (Cell 4 and Cell 5) with amendment added in Cell 4. Area 2 is approximately 3,400 square feet in size



with sediment depths that range from 2.5 ft to 9.2 ft and has an approximate sediment volume of 870 cubic yards.

1.5 Wastewater Treatment

Wastewater from the decontamination and stockpile staging pads will be pumped through bag filters to reduce suspended solids and containerized. Water samples will be collected and submitted to TestAmerica Laboratories, Inc. in North Canton, Ohio (TestAmerica) for analysis of PCBs using Method SW-846 8082A at a minimum frequency of one sample per tank, or after a significant quantity of water has been treated (e.g., 5,000 gallons), and the project schedule provides an adequate time window for sampling and analysis to be completed before additional water needs to be treated. If the results are above 0.5 µg/L, additional treatment(s) using Granular Activated Carbon (GAC) will be completed and the water will be re-tested until the results are below 0.5 µg/L. When the results are less than 0.5 µg/L the water will be discharged back into the secondary pond.

2. Confirmation Sampling

Excavation floor verification sampling will be completed in both Areas 1 and 2 at a frequency of 3 samples per cell (approximately 900 square feet per cell or less) for a total of 15 samples. Samples will be collected from a decontaminated excavator bucket. The excavator will scrape approximately 6 inches of material from the excavation floor and grab samples will be recovered from the top of the material in the bucket. The remainder of the material will be returned to the open excavation. Samples will be submitted to TestAmerica and analyzed for PCBs using analytical method SW-846 8082A. Proposed sampling locations are presented on Figure 2.

Should you have any questions, please do not hesitate to call.

Yours truly,

GHD

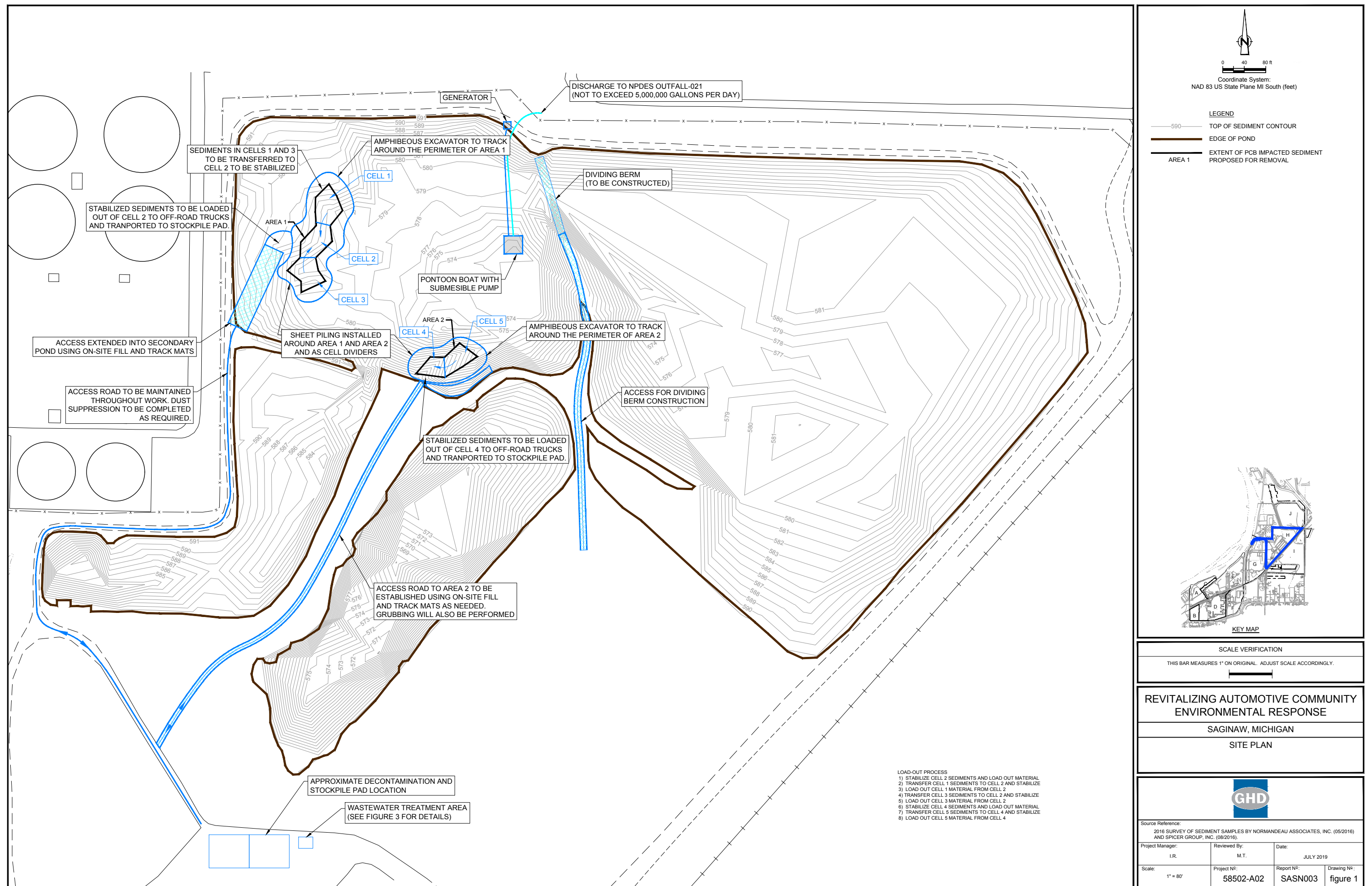
A handwritten signature in blue ink that reads "J. Pardys". The signature is stylized with a large, looped "J" and a cursive "Pardys".

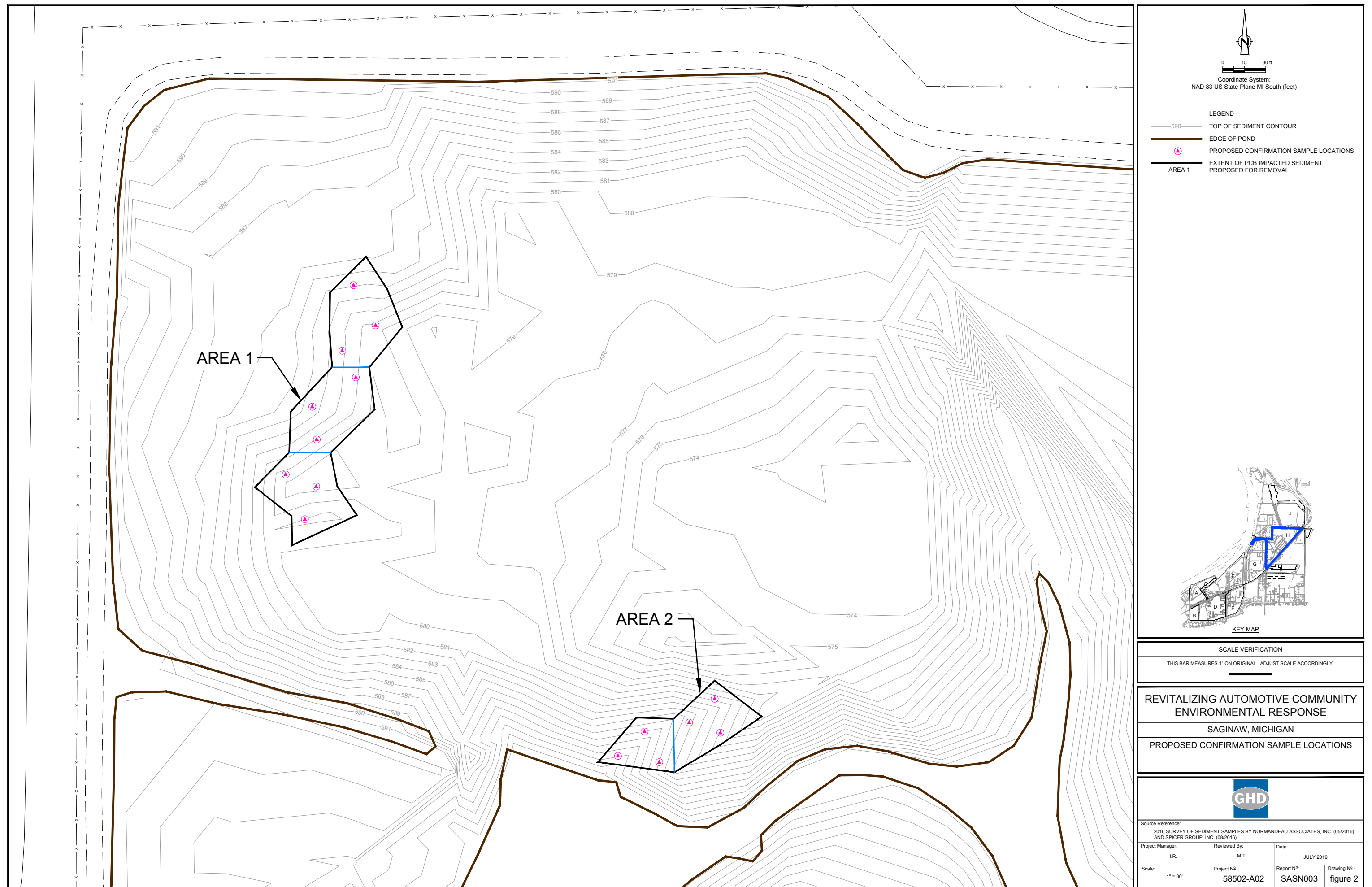
John-Eric Pardys, P. Eng.

JEP/kf/3

Encl.

cc: Dave Favero, RACER
Michael Tomka, GHD





Attachment A



Draft for Review



Interim Measures Work Plan for PCB-Impacted Sediment Removal

Former Nodular Industrial Land
Saginaw, Michigan

Revitalizing Auto Communities
Environmental Response Trust



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1. Introduction

This report presents the proposed interim measure work plan (Work Plan) to remove PCB-impacted sediments from the secondary pond at Revitalizing Auto Communities Environmental Response Trust's (RACER) Former Nodular Industrial Lands (Site) in Saginaw, Michigan. The Site location is presented on Figure 1.1 and the Site Plan is presented on Figure 1.2. The Site is undergoing Resource Conservation and Recovery Act (RCRA) Corrective Action under Administrative Order on Consent RCRA-05-2011-0023.

This Work Plan was prepared in accordance with Title 40 of the Code of Federal Regulations, Part 761 (40 CFR 761) as a notification to the U.S. EPA of RACER's intent to implement a cleanup of the Site related PCB contamination under the risk based option set forth under 40 CFR 761.61(c).

The remainder of the Work Plan provides the following information:

- Nature of contamination including kinds of materials contaminated
- Procedures used to sample contaminated and adjacent areas and a site map showing PCB concentrations measured in all pre-cleanup characterization samples
- Location and extent of the PCB-impacted area
- Remedial plan for PCB impacts at the site including approach, schedule, and disposal facilities
- Written Certification as required by 40 CFR 761.61(a)(3)(E)

It is RACER's intent that this interim measure be the final active remediation activity for the secondary pond (including Lagoon 5) and future activities related to the secondary pond will be limited to deed restrictions to provide for proper institutional controls.

1.1 Background

The secondary pond (including Lagoon 5) is part of the former wastewater treatment plant (WWTP) which was built in 1976 to treat the effluent water from the former Grey Iron Plant. Operation of the WWTP ceased in 2010, upon completion of the new treatment facility at the General Motors (GM) Saginaw Metal Casting Operations (SMCO) facility. The WWTP was part of an overall water recycle system that returned treated water for reuse as part of the manufacturing operations.

The secondary pond was incorporated into the WWTP system beginning in 1977. The secondary pond was built on low permeability glaciolacustrine clays that underlie the area. The clay is encountered at approximately 5 to 10 feet below ground surface (bgs) and extends to a depth of approximately 68 to 95 feet bgs. The clays are fine-grained and water does not enter readily or move freely within them as observed during extensive investigations at the Site. A thin veneer (up to 15 feet thick) of fill material comprises a majority of the surficial materials above the clay at the Site but not in the secondary pond or lagoon 5, which were constructed of clay. The water table is generally encountered within 5 feet of the ground surface surrounding the pond.

The secondary pond is approximately 1.2 million square feet (28 acres) in area with an average depth of approximately 6 feet with a volume up to approximately 90 million gallons. The basin was



constructed by excavating into the underlying clay and using the excavated clay to construct berms and sidewalls. The basin was used to settle solids remaining in effluent from the primary basins (primary basins previously filled and covered in 2013), prior to recirculation. A partially separated portion of the secondary pond is referred to as Lagoon 5, which is approximately 3.7 acres and can hold approximately 12.7 million gallons. Lagoon 5 and the Secondary Pond are currently connected by a culvert pipe with a butterfly valve.

The secondary pond currently contains varying amounts of sediment, ranging from <1 foot to approximately 5 feet.

As of September 2010, the secondary pond stopped receiving water from the WWTP and now the only water entering the secondary pond is from directly falling precipitation or runoff associated with precipitation events. An NPDES permit was issued August 24, 2012 and renewed on July 1, 2018 to allow discharge of water from the secondary pond (as there was no outlet). In 2012, a controlled outlet (1-ft diameter PVC pipe with valve) was installed through the secondary pond embankment to allow discharge from the pond to maintain freeboard and prevent overtopping. In 2016 the controlled outlet was lowered approximately 5-ft to allow for additional gravity drainage of the secondary pond water. In addition, a second controlled outlet was installed approximately 350 feet to the east from the existing controlled outlet in the secondary pond. The second controlled discharge outlets to the same ditch as the original controlled discharge. The purpose of the second controlled outlet was to allow the flexibility to portion off the secondary pond and still be able to control the water level in the secondary pond.

1.2 Current Conditions

In order to effectively evaluate remediation alternatives for the secondary pond, RACER initiated the removal of water from the secondary pond in June 2016. Initially, water was discharged by gravity flow through NPDES permitted discharge pipe existing at that time. Daily sampling during discharge was conducted in accordance with the NPDES permit. On June 23, 2016, RACER lowered the outfall pipe approximately 5-ft as discussed with and approved by the MDEQ NPDES permitting department. RACER continued to lower the water level in the secondary pond by gravity through the newly lowered outfall pipe and sampled daily during discharge in accordance with the NPDES permit. Once the water level was lowered to the invert of the outfall pipe, RACER initiated pumping of water through the pipe as discussed with, and approved by, the MDEQ NPDES permitting department and continued to sample daily during discharge in accordance with the NPDES permit. On September 12, 2016 discharge of water from the secondary pond was terminated as the floating pump intake was too close to the sediments and there had been periodic exceedances of discharge parameters. Since September 2016, there have been no discharges from the Secondary Pond. The water level in the Secondary Pond has risen and is currently fluctuating slightly below inverts of the two outlet from the Secondary Pond. Appendix A presents a photographic log of the secondary pond from before it was lowered in June 2016 to the present.



2. Investigation Summary

The following section presents previous investigations, sample results, and evaluations for the secondary pond.

2.1 RCRA Facility Investigation

As part of the RCRA Facility Investigation (RFI) conducted by GM prior to bankruptcy, two rounds of sampling were conducted in the secondary pond. The first sampling round was conducted in 1998 in which four samples were collected and were analyzed for PCBs, Metals, and General Chemistry. The results of PCBs in sediments ranged from an estimated concentration of 1.9 mg/kg to an estimated concentration of 7.3 mg/kg. The second round of sampling was conducted in 2005 in which an additional four samples were collected and analyzed for PCBs, manganese, and lead. The results of PCBs in sediments ranged from an estimated concentration of 0.3 mg/kg to 1.45 mg/kg. The results were summarized in a Phase 1C RFI Report (CRA, March 2007). As part of the Phase 1C RFI Report an ecological risk assessment (ERA) was conducted on the secondary ponds. The ERA concluded that, "Risk of adverse ecological effects is low to negligible from exposure to Facility-related constituents." Please note, however, that the ERA assumed that the secondary ponds were constructed process related settling ponds and, therefore, potential exposure pathways were assumed to be limited to food chain exposure for wildlife foraging at the ponds.

Following the GM bankruptcy, in 2011 RACER completed additional characterization of the secondary pond (sediment and water) for the purpose of obtaining an NPDES permit for the discharge of water, and if necessary, to evaluate remedial alternatives to address any issues identified. A Sampling and Analysis Plan (SAP) was submitted to EPA and was approved on June 28, 2011. Twelve sediment samples were collected and analyzed for metals, PCBs, and general chemistry. The results for PCBs in sediment ranged from an estimated concentration of 0.048 mg/kg to an estimated concentration of 5.19 mg/kg. The results were submitted to EPA on February 6, 2012 via email.

All data collected as part of the RFI was submitted in a Supplemental RFI Report submitted on September 28, 2012.

Appendix B presents a summary of the RFI data.

2.2 2016 Additional Investigation to Support RCRA Corrective Action

In March 2016, RACER conducted additional investigation of the secondary pond sediments and water to support RCRA Corrective Action and evaluation for suitability for potential establishment of mitigation wetlands. Ten sediment samples and two underlying clay samples were collected and analyzed for VOCs, Metals, AVS/SEM, PCBs and general chemistry. The results for PCBs in sediment ranged from non-detect to 7.6 mg/kg.

In May 2016, RACER conducted a more detailed investigation of the secondary pond sediments, collecting samples at various depths and of the underlying clay. Sixty-three sediment samples and



20 underlying clay samples were collected and analyzed for Metals, PCBs, and General Chemistry. The results for PCBs in sediment ranged from non-detect to 110 mg/kg.

In August 2016 and September 2017, RACER conducted additional delineation of PCB impacts in sediment to better define the limits of elevated PCBs in sediments. Eighty-eight sediment samples were collected and analyzed for PCBs.

Appendix B presents a summary of the data.

2.3 Secondary Pond Ecological Evaluation

GHD submitted an Ecological Screening Assessment for the secondary pond under future use scenarios on August 18, 2017 to which U.S. EPA provided comments to on October 18, 2017. On December 4, 2017, RACER, GHD, U.S. EPA, and Booz Allen Hamilton (U.S. EPA contractor) participated in a conference call to discuss the comments. Following the call, GHD prepared and submitted a response to U.S. EPA comments on January 29, 2018 and also prepared and submitted a sediment pore water sampling Work Plan to address U.S. EPA's comments. The Work Plan was approved by U.S. EPA on March 2, 2018 and sampling was conducted on April 17, 2018. The results were presented to U.S. EPA on May 11, 2018 and a memorandum summarizing the results was submitted on June 3, 2018. U.S. EPA provided comments on the pore water sample results on June 13, 2018 and responses to comments were provided to U.S. EPA on July 3, 2018. U.S. EPA provided email approval on September 17, 2018 to proceed with removal of PCBs >50 ppm in Secondary Pond sediments and following the removal, to allow the Secondary Ponds to naturalize, and to implement appropriate institutional controls to prevent hydrologic connection between the pond and on the pond and nearby surface water.

2.4 Investigation Summary

Analytical data collected from sampling locations situated throughout the secondary pond have delineated the extent of areas with elevated PCB impacts, as presented on Figure 1.3. Appendix B presents a summary of all sediments results from the secondary pond.

This Work Plan proposes removal of elevated PCB-impacted sediments >50 ppm from the secondary pond as an interim measure.

3. Proposed PCB-Impacted Sediment Removal

The proposed removal of elevated PCB-impacted sediment >50 ppm from the secondary pond will consist of:

- Lowering the water level in the secondary pond, as necessary.
- Preparing a working platform (re-locating soft sediments adjacent to the removal area or utilizing track mats, etc.).
- Isolating the elevated PCB-impacted sediments proposed for removal to prevent mixing with other sediments during removal (e.g., soil berm, sheet pile, or other method).



- Stockpiling elevated PCB-impacted sediment within the footprint of the secondary pond on a polyvinyl chloride (PVC) liner atop dryer sediments and covering to allow sediments to free drain. Water will be directed back into the secondary pond.
- Collect additional characterization samples, as necessary, for waste profiling, transporting, and disposing of elevated PCB-impacted sediments.

3.1 Scope of Work and Schedule

The following sections describe the interim measure activities related to on-Site work to be conducted under this Work Plan. More specific means and methods and definitive schedule will be requested from the contractors who will submit proposals for this work. An important part of contractor proposals and contractor selection will be the proposed means and methods to accomplish the scope of work. Accordingly, specific details in the below may vary. Any acceptable variations proposed by the selected contractor will be communicated to U.S. EPA.

3.1.1 Preparation of Health and Safety Plan

To ensure that all on-Site work is completed safely, a Site-specific Health and Safety Plan (HASP) has already been prepared for the Site by GHD for GHD's personnel. The selected contractor(s) will prepare a HASP, including identifying a Site health and safety officer and job safety analysis (JSA) for its personnel for the sediment removal activities. The hazard analysis will identify the potential hazards, evaluate the level of personal protective equipment that will be used during the cleanup activities, and describe the personnel decontamination procedures required to control any potential personal exposures during implementation of this Work Plan.

The contractor's HASP will be prepared and implemented consistent with Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120.

3.1.2 Contractor Procurement

One or more qualified, OSHA 29 CFR 1910.120 trained contractors will be procured for removal, stockpiling, loading, transportation, and disposal of the sediment. The division of responsibilities, if any, will be determined through a competitive bidding process.

3.1.3 Permitting

All applicable permits will be obtained before conducting the work which may include: a Buena Vista Township Soil erosion and sedimentation control permit. As the work area is not in hydraulic communication with the Saginaw River floodplain, a MDEQ floodplain permit should not be needed but GHD will verify that with MDEQ.

3.1.4 Mobilization/Site Preparation

Upon mobilization of the contractor to the Site, the contractor will establish security controls and designate work zones (exclusion zone, contamination reduction zone, and support zone) to minimize tracking impacted sediments. The contractor will install a temporary orange safety fence or caution tape, with warning signs, as necessary to define the work zones.



3.1.5 Lowering of Secondary Pond Water Level

To facilitate the removal of sediment, the water level in the secondary pond may be lowered. RACER will work with the MDEQ NPDES permitting department to develop an acceptable pump intake setup to remove and discharge water through the permitted outfalls. Discharge samples will be collected in accordance with the NPDES permit.

3.1.6 Sediment Removal and Stockpiling Activities

Removal of the elevated PCB-impacted sediment is expected to be completed as follows:

- Relocating sediments adjacent to the PCB-impacted sediment in the northwest corner of the secondary pond down to the clay pond bottom to provide a competent working surface, by utilizing track mats, etc., or by completing work while the sediment is frozen to gain access to the area with PCB-impacted sediment.
- Removal of the PCB-impacted sediment. Prior to initiating removal of PCB-impacted sediments, they will be isolated to prevent the surrounding material from sloughing into the work area thereby avoiding mixing of sediments and additional material removal. The excavation will continue vertically until native clay is reached (all clay sample results were less than 10 mg/kg PCBs). Based on sediment samples collected, the clay surface is very distinguishable from the overlying sediment. The excavation will continue horizontally to sample locations with results less than 50 mg/kg PCBs as presented on Figure 2.1.
 - Area 1 is approximately 7,800 square feet in size, sediment depth that ranges from 1 ft to 4.67 ft, and has an approximate sediment volume of 700 cubic yards.
 - Area 2 is approximately 3,400 square feet in size, sediment depth that ranges from 0.5 ft to 3.67 ft and has an approximate sediment volume of 290 cubic yards.
- PCB-impacted sediments removed will be stockpiled in one or more stockpiles within the footprint of the secondary pond on a 30 millimeter (mm) PVC liner on top of sediments at a higher elevation to allow for draining until sediments can pass the paint filter test, be loaded, be transported and be accepted by the disposal facility. The stockpiles will be covered at a minimum at the end of the work day when sediment is not being added to, mixed, or removed from the stockpile.
- Drainage water from the stockpiles will be filtered to minimize suspended solids prior to being allowed to mix with remaining water in the pond.

3.1.7 Proposed Sampling

3.1.7.1 Sediment Stockpile Characterization

One sample from the stockpiled material from each of the removal subareas will be analyzed for TCLP VOCs, TCLP SVOCs, TCLP RCRA Metals, Reactivity, Corrosivity, and Ignitability (RCI), and other parameters if required by the disposal facility to complete the waste profile.



3.1.7.2 Sediment Verification Sampling

No sediment verification sampling is proposed, since the removal is being completed horizontally to known sample locations with PCBs <50 mg/kg and vertically to clay for which only low level PCBs (<10 mg/kg) have been reported.

3.1.8 Sediment Transportation and off-Site Disposal

Once drained, the stockpiles of sediment impacted with PCBs > 50 ppm are proposed to be disposed at the following TSCA disposal facility:

Wayne Disposal, Inc. Site #2 Landfill
49350 N. I-94 Service Drive, Belleville, MI 48111
EPA ID# MID 048 090 633

Prior to leaving the Site, the haul trucks and / or roll off boxes will be secured with tarps, and will be cleaned to avoid tracking material off-Site. Manifests will be prepared and will accompany the loads in accordance with 40 CFR 761 Subpart K PCB Waste Disposal Records and Reports.

3.1.9 Decontamination Facility

Decontamination will be required for equipment that potentially comes in contact with PCB-impacted sediment. This will include the excavator and front end loader, and may include roll-off boxes, haul truck beds, and small equipment.

Decontamination will be conducted in accordance with 40 CFR 761.79(c)(2) by swabbing surfaces that have contacted PCBs with a solvent or completing a double wash/rinse. Decontamination materials will be solidified and disposed of at the Wayne Disposal, Inc. Site #2 Landfill (TSCA disposal facility).

If a disposal facility is proposed other than the facility listed above, details for the disposal facility will be provided to U.S. EPA for review and approval.

3.1.10 Site Restoration and Demobilization

Once the work is completed, the contractor will remove any temporary fencing, temporary structures, equipment, and other materials and supplies brought onto the Site for the interim measure activities. Any materials coming in contact with PCB impacted sediment will either be decontaminated in accordance with Section 3.1.9 or disposed of at the Wayne Disposal, Inc. Site #2 Landfill (TSCA disposal facility).

4. Deed Restrictions

The coordinate description and illustration of the Secondary Pond is provided in Figure 4.1 (not including Lagoon 5) for the purpose of establishing deed restrictions in accordance with 40 CFR 761.61(a)(8). The deed restrictions will be completed in the form of a Declaration of Restrictive Covenant that covers the entire Site, which will include among other provisions, the following that apply specifically to the Secondary Pond (not including Lagoon 5):



- The land has been used for PCB remediation waste disposal and is restricted to use as a low occupancy area [40 CFR 761.61(a)(8)(i)(A)(1)]. The Owner is required to apply to USEPA, under 40 CFR 761.61(a), for approval to change this Low Occupancy use restriction and to comply with any conditions or requirements of any approved change to this restriction.
- The cleanup levels left at the Site are up to 50 ppm PCBs.
- The Owner shall not allow, cause, or create an uncontrolled above ground connection that allows for a back and forth flow of water between the Secondary Pond and the adjacent drainage ditches unless such a connection is first approved in writing by USEPA or MDEQ and RACER Trust. However, infrequent and controlled discharge of Secondary Pond water is allowed pursuant to applicable requirements (such as an NPDES Permit).
- The Owner shall not allow human use or construction of any building or structure for human occupation in the Secondary Pond unless such a use is first approved in writing by USEPA or MDEQ and RACER Trust.
- The Owner shall not allow swimming, wading, boating or fishing in the Secondary Pond unless such activity is first approved in writing by USEPA or MDEQ and RACER Trust.

Other anticipated provisions for the entire Site or other specific areas of the Site for the DRC include:

- Prohibiting all uses of the Property that are not compatible with or are inconsistent with the exposure assumptions for the nonresidential cleanup criteria established pursuant to MCL 324.20120a(1)(b) of NREPA
- Providing notification of the presence of PCB remediation waste (an area of approximately 10,900 square feet south of former Nodular Iron Plant in the southern portion of Investigative Unit G) and prohibiting uses in that area that are not in accordance with requirements for Low Occupancy as defined in 40 CFR 761.3
- Prohibiting the installation of drinking water wells or installation or use of wells or other devices to withdraw groundwater (without written approval from MDEQ and RACER Trust)
- Prohibiting the relocation of contaminated soils except as provided under Part 201, Section 20120c, MCL 324.20120c
- Prohibiting treating, storing or disposing or releasing any hazardous substances without approval from MDEQ or USEPA
- Prohibiting the removal, disturbance or damage of monitoring wells or the PCB remediation waste area (without written approval from USEPA and RACER Trust)
- Prohibiting the construction of subsurface utilities or other subsurface structures (without written approval from MDEQ and RACER Trust)
- Prohibiting the construction and/or occupancy of any building or structures on the Property without completing an evaluation of hazardous substances volatilizing into indoor air or implementing engineering controls to mitigate the potential for subsurface vapor migrating indoor



- Providing notification of one sampling location containing arsenic impacted soil remaining on-Site

5. Reporting/Document Preparation

Upon the completion of this Work Plan, a completion report will be prepared to present a summary of the interim measure removal. The report will include a summary of the work completed, a summary of field observations, quantities of materials removed, and certificates of disposal.

6. Certification

The certification statement required under 40 CFR 761.61(a)(3)(E) is provided in Appendix A.

7. Schedule

Pending U.S. EPA approval of the proposed work, a contractor will be procured to complete the work and applicable permits will be obtained. The work will be initiated as soon as practicable but during a time of the year with suitable weather conditions.

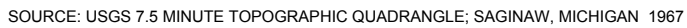


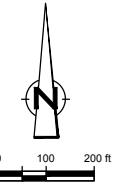
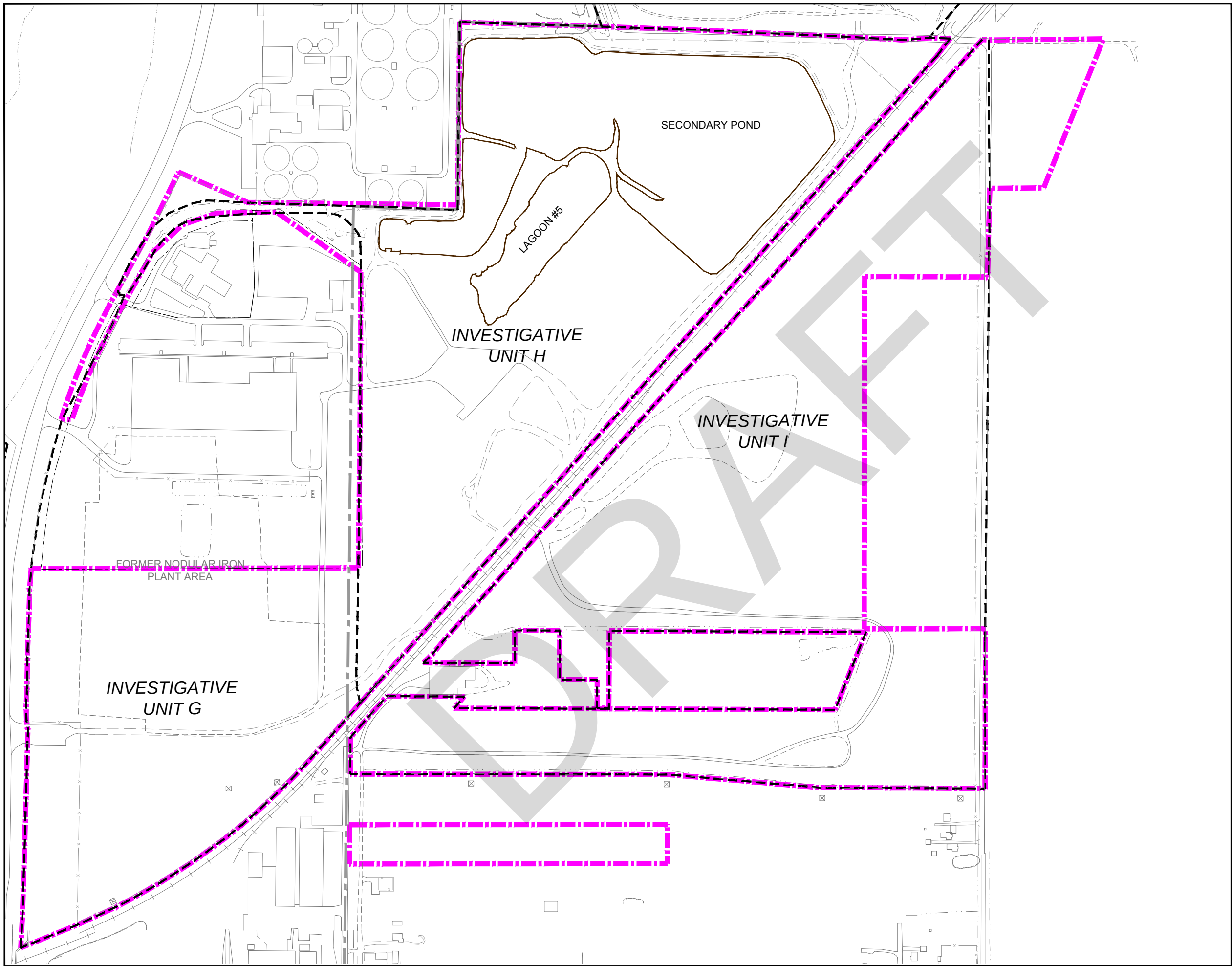
figure 1.1

SITE LOCATION

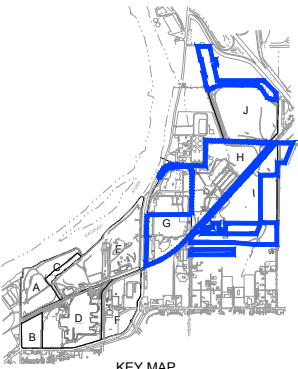
REVITALIZING AUTOMOTIVE COMMUNITY

ENVIRONMENTAL RESPONSE

Saginaw, Michigan



- LEGEND**
- INVESTIGATIVE UNIT BOUNDARY
 - RACER PROPERTY



KEY MAP

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.



REVITALIZING AUTO COMMUNITES
ENVIRONMENTAL RESPONSE

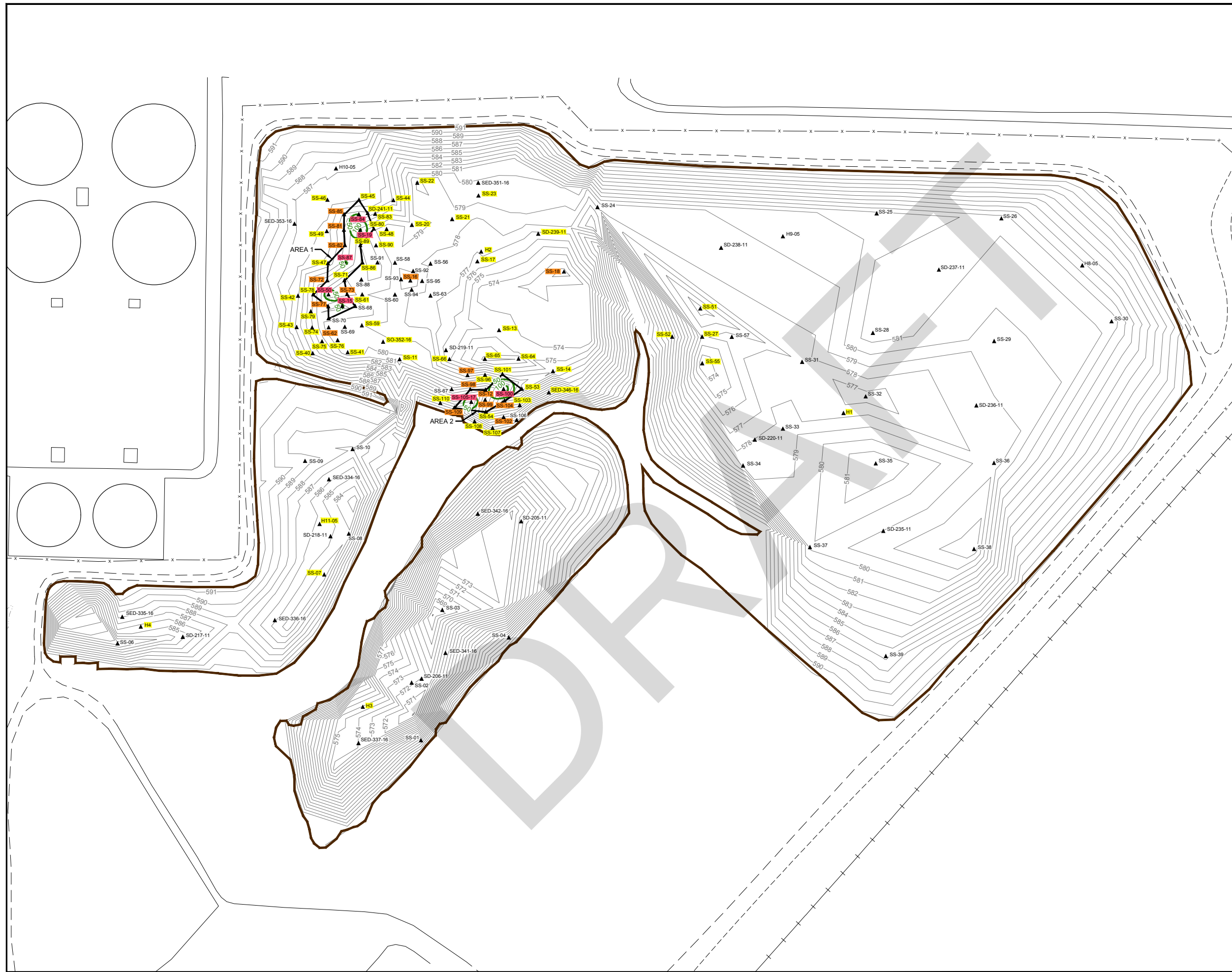
SAGINAW, MICHIGAN

SITE PLAN



Source Reference:
MICHIGAN STATE PLANE SOUTH, NAD 83 USING INTERNATIONAL FEET, NGVD 88
SPICER SURVEY, OCTOBER 2009.

Project Manager: I.R.	Reviewed By: M.T.	Date: SEPTEMBER 2016
Scale: 1:200	Project Nº: 58502-T02	Report Nº: 014
		Drawing Nº: figure 1.2



Coordinate System:
NAD 83 US State Plane MI South (feet)

LEGEND

- 590 TOP OF SEDIMENT CONTOUR
- EDGE OF POND
- SEDIMENT AND/OR CLAY SAMPLE LOCATION
- AREA 1 EXTENT OF PCB IMPACTED SEDIMENT PROPOSED FOR REMOVAL
- 50 PCB CONTOUR (mg/kg)
- SS-26 PCBs < 1 mg/kg
- SS-17 PCBs > 1 mg/kg AND < 10 mg/kg
- SS-18 PCBs > 10 mg/kg AND < 50 mg/kg
- SS-87 PCBs > 50 mg/kg

NOTE:
SEDIMENT SAMPLE LOCATIONS MAY HAVE MULTIPLE DEPTH INTERVALS. THE COLORED SHADING REPRESENTS THE HIGHEST PCB CONCENTRATION AT A GIVEN LOCATION.

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

REVITALIZING AUTOMOTIVE COMMUNITY
ENVIRONMENTAL RESPONSE

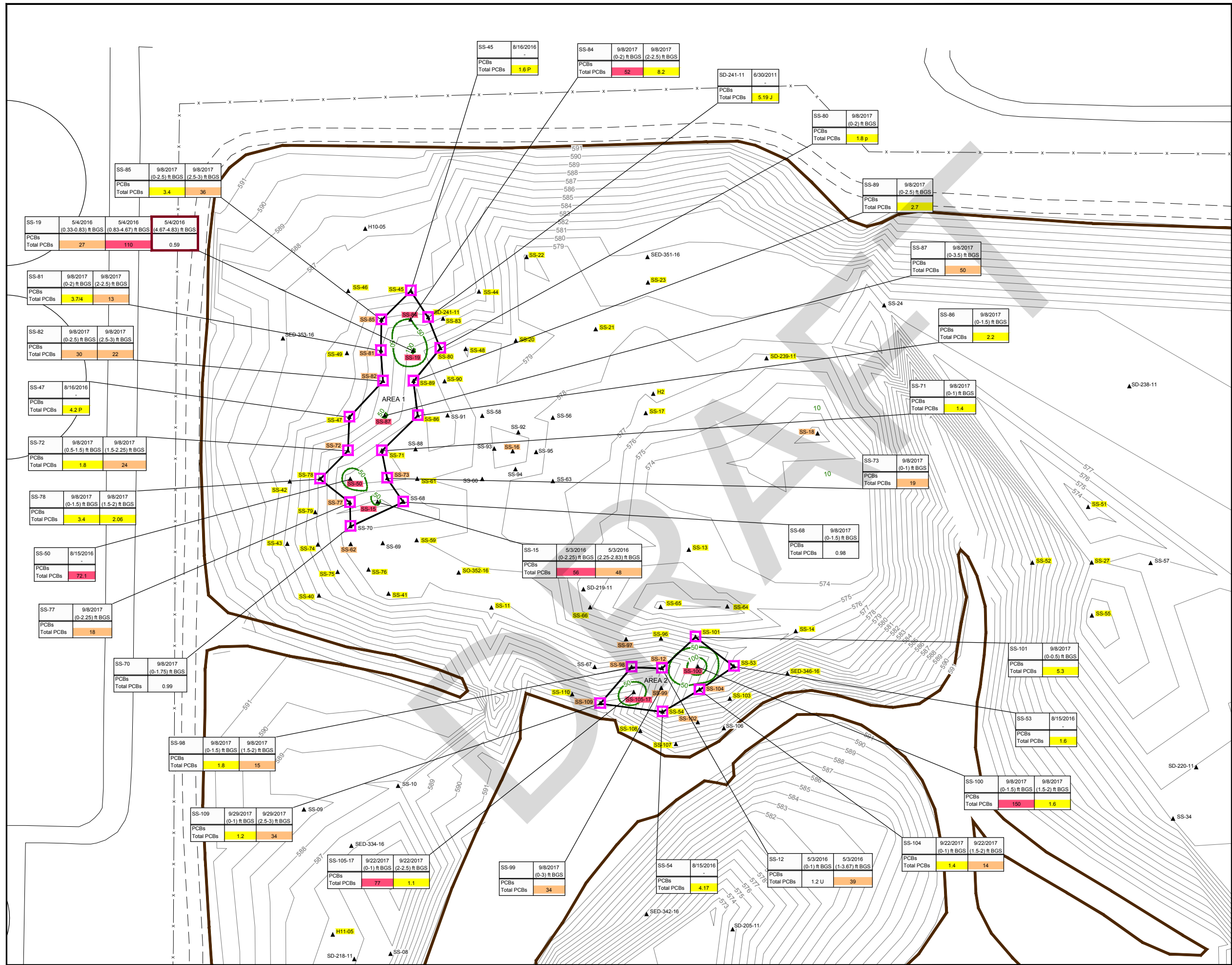
SAGINAW, MICHIGAN

SECONDARY POND AND LAGOON:
SEDIMENT - PCBs

Source Reference:
2016 SURVEY OF SEDIMENT SAMPLES BY NORMANDEAU ASSOCIATES, INC. (05/2016)
AND SPICER GROUP, INC. (08/2016).

Project Manager: I.R.	Reviewed By: M.T.	Date: SEPTEMBER 2016

Scale: 1" = 120'	Project N°: 58502-T02	Report N°: 014	Drawing N°: figure 1.3



Coordinate System:
NAD 83 US State Plane MI South (feet)

LEGEND

—590— TOP OF SEDIMENT CONTOUR

— EDGE OF POND

▲ SEDIMENT AND/OR CLAY SAMPLE LOCATION

— AREA 1

— PRE-REMOVAL VERIFICATION SAMPLES

50 — PCB CONTOUR (mg/kg)

▲ SS-24 PCBs < 1 mg/kg

▲ SS-17 PCBs > 1 mg/kg AND < 10 mg/kg

▲ SS-18 PCBs > 10 mg/kg AND < 50 mg/kg

▲ SS-87 PCBs > 50 mg/kg

ft BGS FEET BELOW GROUND SURFACE

NOTE:
SEDIMENT SAMPLE LOCATIONS MAY HAVE MULTIPLE DEPTH INTERVALS. THE COLORED SHADING REPRESENTS THE HIGHEST PCB CONCENTRATION AT A GIVEN LOCATION.

SAMPLE LOCATION	
SS-15	5/3/2016
PCBs	(0-2.25) ft BGS
56	48
RESULT (mg/kg)	
PARAMETER	

UNDERLYING CLAY SAMPLE LOCATION

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

REVITALIZING AUTOMOTIVE COMMUNITY ENVIRONMENTAL RESPONSE

SAGINAW, MICHIGAN

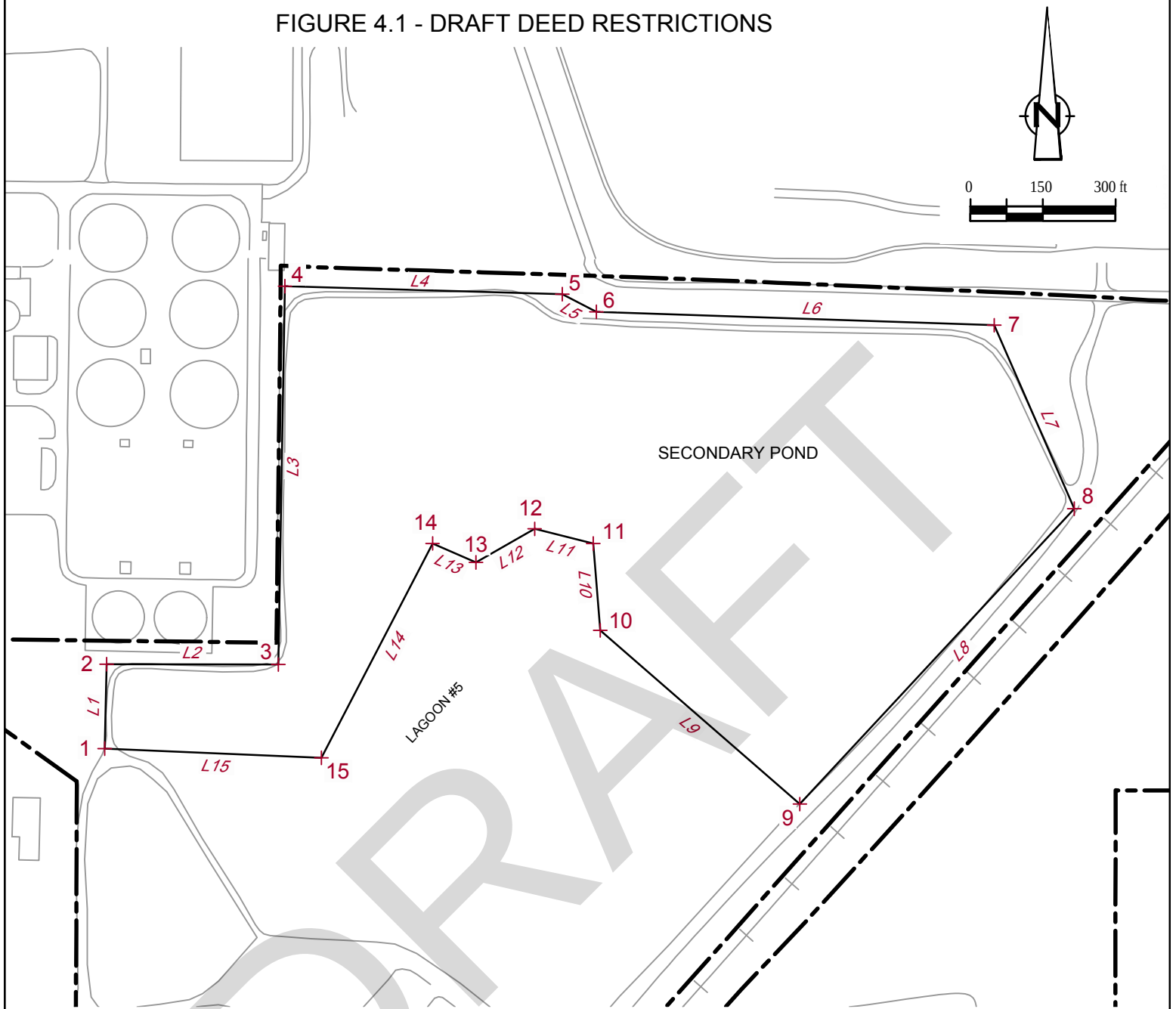
PROPOSED SEDIMENT REMOVAL AREA - PCB IMPACTED SEDIMENT

Source Reference:
2016 SURVEY OF SEDIMENT SAMPLES BY NORMANDEAU ASSOCIATES, INC. (05/2016) AND SPICER GROUP, INC. (08/2016).

Project Manager:	Reviewed By:	Date:
I.R.	M.T.	SEPTEMBER 2016

Scale:	Project No.:	Report No.:	Drawing No.:
1" = 120'	58502-T02	014	figure 2.1

FIGURE 4.1 - DRAFT DEED RESTRICTIONS

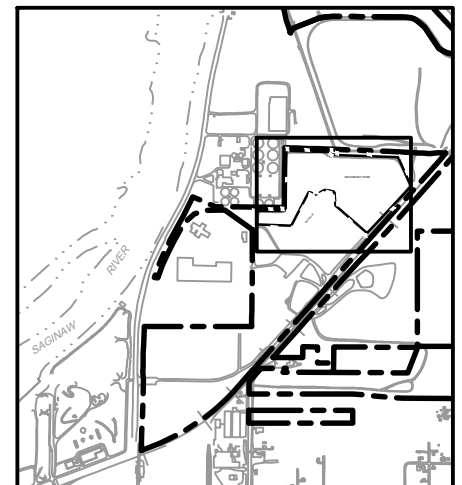


LEGEND

--- APPROXIMATE PROPERTY BOUNDARY

1	X=13245623.3602	Y=715520.1392
L1	N 1d19'4 E @ 174.71	
2	X=13245627.3778	Y=715694.7984
L2	S 89d51'52 E @ 354.84	
3	X=13245982.2137	Y=715693.9592
L3	N 1d0'40 E @ 782.44	
4	X=13245996.0192	Y=716476.2792
L4	S 88d20'44 E @ 573.48	
5	X=13246569.2578	Y=716459.7219
L5	S 62d48'8 E @ 79.23	
6	X=13246639.7247	Y=716423.5102
L6	S 88d3'31 E @ 823.20	
7	X=13247462.4497	Y=716395.6232
L7	S 23d34'57 E @ 413.84	
8	X=13247628.0127	Y=716016.3498

L8	S 42d53'2 W @ 833.78	
9	X=13247060.6141	Y=715405.4093
L9	N 48d57'59 W @ 547.27	
10	X=13246647.7955	Y=715764.6919
L10	N 4d36'49 W @ 180.03	
11	X=13246633.3145	Y=715944.1413
L11	N 75d53'35 W @ 124.96	
12	X=13246512.1195	Y=715974.5991
L12	S 60d10'8 W @ 139.70	
13	X=13246390.9327	Y=715905.1072
L13	N 66d20'43 W @ 98.08	
14	X=13246301.0909	Y=715944.4605
L14	S 27d24'23 W @ 499.29	
15	X=13246071.2666	Y=715501.2052
L15	N 87d34'46 W @ 448.31	



KEY MAP
SCALE: 1" = 2500'

NOTE:
MICHIGAN SOUTH STATE PLANE COORDINATE
SYSTEM NAD 83, IN U.S. INTERNATIONAL FEET.



Exhibit

DRAFT

Appendices

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Appendix A Photographic Log – Secondary Pond



Photo 1 – View of Secondary Pond facing south (towards point) 06-29-2016



Photo 2 – View of Secondary Pond facing south (towards point) 07-29-2016



Site Photographs



Photo 3 – View of Secondary Pond facing south (towards point) 08-24-2016



Photo 4 – View of Secondary Pond facing south (towards point) 09-06-2016



Site Photographs



Photo 5 – View of Secondary Pond facing south (towards point) 09-20-2016



Photo 6 – View of Secondary Pond facing south (towards point) 10-07-2016



Site Photographs



Photo 7 – View of Secondary Pond facing south (towards point) 02-15-2017



Photo 8 – View of Secondary Pond facing south (towards point) 04-04-2017



Site Photographs



Photo 9 – View of Secondary Pond facing south (towards point) 09-01-2017



Photo 10 – View of Secondary Pond facing south (towards point) 12-08-2017



Site Photographs



Photo 11 – View of Secondary Pond facing south (towards point) 01-17-2018



Photo 12 – View of Secondary Pond facing south (towards point) 03-08-2018



Site Photographs



Photo 13 – View of Secondary Pond facing south (towards point) 06-15-2018



Photo 14 – View of Secondary Pond facing south (towards point) 07-13-2018



Site Photographs



Photo 15 – View of Secondary Pond facing south (towards point) 09-17-2018



Site Photographs

DRAFT

Appendix B Secondary Pond Sediment Analytical Results Summary

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	H1	H1	H2	H3	H3	H4	H8-05	H9-05	H10-05	H11-05	SD-205-11	SD-206-11	SD-217-11	SD-218-11	SD-219-11	SD-220-11	SD-235-11
Sample ID:	S00003	S00004	S00005	S00001	S00002	S00006	B70536	B70537	B70538	B70539	S-58502-062711-SH-205	S-58502-062711-SH-206	S-58502-062811-SH-217	S-58502-062811-SH-218	S-58502-062811-SH-219	S-58502-062811-SH-220	S-58502-063011-SH-235
Sample Date:	11/17/1998	11/17/1998	11/17/1998	11/16/1998	11/16/1998	11/17/1998	3/29/2005	3/29/2005	3/29/2005	3/29/2005	6/27/2011	6/27/2011	6/28/2011	6/28/2011	6/28/2011	6/28/2011	6/30/2011
Sample Depth:	-	-	-	-	-	-	(0-1) ft BGS	(0-1) ft BGS	(0-1) ft BGS	(0-1) ft BGS	-	-	-	-	-	-	-
matrix_code	SE	SE (Duplicate)	SE	SE	SE (Duplicate)	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units																
VOAs																	
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOAs																	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-</

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		H1	H1	H2	H3	H3	H4	H8-05	H9-05	H10-05	H11-05	SD-205-11	SD-206-11	SD-217-11	SD-218-11	SD-219-11	SD-220-11	SD-235-11
Sample ID:		S00003	S00004	S00005	S00001	S00002	S00006	B70536	B70537	B70538	B70539	S-58502-062711-SH-205	S-58502-062711-SH-206	S-58502-062811-SH-217	S-58502-062811-SH-218	S-58502-062811-SH-219	S-58502-062811-SH-220	S-58502-063011-SH-235
Sample Date:		11/17/1998	11/17/1998	11/17/1998	11/16/1998	11/16/1998	11/17/1998	3/29/2005	3/29/2005	3/29/2005	3/29/2005	6/27/2011	6/27/2011	6/28/2011	6/28/2011	6/28/2011	6/28/2011	6/30/2011
Sample Depth:		-	-	-	-	-	-	(0-1) ft BGS	(0-1) ft BGS	(0-1) ft BGS	(0-1) ft BGS	-	-	-	-	-	-	-
matrix_code		SE	SE (Duplicate)	SE	SE	SE (Duplicate)	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters		Units																
4-Nitroaniline		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atrazine		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																		
Aluminum		mg/kg	11900	12500	19800	14900	13800	17700	-	-	-	-	-	-	-	-	-	-
Antimony		mg/kg	10 U	12	23	10 U	10 U	43	-	-	-	0.096 J	0.55	3.2	5.8	1.7	38 U	5.1 J
Arsenic		mg/kg	22	23	31	9	9	47	-	-	-	2.7	3.8	12	15	9.6	19 U	19
Barium		mg/kg	171	171	259	102	97	207	-	-	-	45	52	150	220	140	140	130
Beryllium		mg/kg	1	2	2	1	1 U	2	-	-	-	0.17 U	0.22 U	1.1	1.3	0.79	0.62	1.7
Cadmium		mg/kg	22	22	28	2	2	28	-	-	-	0.12	0.50	6.9	9.3	3.0	4.4	5.9
Calcium		mg/kg	40100 J	45300 J	108000 J	97600 J	81400 J	86900 J	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity		meq/100g	202	162	225	-	-	123	-	-	-	-	-	-	-	-	-	-
Chromium		mg/kg	97	113	105	58	57	111	-	-	-	14	23	130	170	110	92	130
Cobalt		mg/kg	7	7	8	8	7	12	-	-	-	4.8	5.1	6.9	8.4	6.3	9.4	6.2
Copper		mg/kg	249	274	323	88	87	382	-	-	-	12	34	110	160	77	90	120
Iron		mg/kg	34500	40100	34500	32100	31400	29100	-	-	-	-	-	-	-	-	-	-
Lead		mg/kg	1580	1690	1800	289	290	1800	699	765	104	9.8	57	1000	1200	340	550	900
Magnesium		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese		mg/kg	5330 J	5470 J	15800 J	3070 J	2810 J	6960 J	11100	4030	1900	500	1000	5400	9900	3700	3400	4900
Mercury		mg/kg	0.2	0.2 U	0.2	0.2 U	0.2 U	0.3	-	-	-	0.013 J	0.060 U	0.072 J	0.083 J	0.035 J	0.057 J	0.17
Nickel		mg/kg	38	42	43	29	29	53	-	-	-	13	17	31	38	28	35	45
Potassium		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium		mg/kg	7 J	7 J	9 J	2 UJ	2 J	17 J	-	-	-	0.22	0.58	3.3	5.1	2.3	38 U	3.3
Silver		mg/kg	5	5	6	2 U	2 U	6	-	-	-	0.033 J	0.16	1.9	2.8	0.78	19 U	2.9
Sodium		mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium		mg/kg	3	3	5	1 U	1 U	14	-	-	-	0.15	0.24	0.83 J	0.93 J	0.38 J	19 U	5.0 J
Tin		mg/kg	129	141	170	39	30	152	-	-	-	-	-	-	-	-	-	-
Vanadium		mg/kg	32 J	36 J	45 J	29 J	27 J	94 J	-	-	-	17	18	19	33	20	31	16
Zinc		mg/kg	17900 J	21800 J	21800 J	1850 J	1870 J	25700 J	-	-	-	15	340	6900	5900	2100	13000	41000

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		H1	H1	H2	H3	H3	H4	H8-05	H9-05	H10-05	H11-05		SD-205-11	SD-206-11	SD-217-11	SD-218-11	SD-219-11	SD-220-11	SD-235-11
Sample ID:		S00003	S00004	S00005	S00001	S00002	S00006	B70536	B70537	B70538	B70539		S-58502-062711-SH-205	S-58502-062711-SH-206	S-58502-062811-SH-217	S-58502-062811-SH-218	S-58502-062811-SH-219	S-58502-062811-SH-220	S-58502-063011-SH-235
Sample Date:		11/17/1998	11/17/1998	11/17/1998	11/16/1998	11/16/1998	11/17/1998	3/29/2005	3/29/2005	3/29/2005	3/29/2005		6/27/2011	6/27/2011	6/28/2011	6/28/2011	6/28/2011	6/28/2011	6/30/2011
Sample Depth:		-	-	-	-	-	-	(0-1) ft BGS	(0-1) ft BGS	(0-1) ft BGS	(0-1) ft BGS		-	-	-	-	-	-	-
matrix_code		SE	SE (Duplicate)	SE	SE	SE (Duplicate)	SE	SE	SE	SE	SE		SE	SE	SE	SE	SE	SE	SE
Parameters																			
Units																			
MetalsSEM																			
Cadmium	mg/kg	25.5 J	25 J	37 J	1.8	2	36 J	-	-	-	-		-	-	-	-	-	-	-
Copper	mg/kg	228 J	213 J	310 J	47.4	65.9	374 J	-	-	-	-		-	-	-	-	-	-	-
Lead	mg/kg	1950 J	1830 J	2490 J	309	300	2430 J	-	-	-	-		-	-	-	-	-	-	-
Mercury	mg/kg	0.2 UJ	0.1 UJ	0.2 UJ	0.03 U	0.03 U	0.9 UJ	-	-	-	-		-	-	-	-	-	-	-
Nickel	mg/kg	34.5 J	33 J	45 J	14.8	17.6	51 J	-	-	-	-		-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-		0.53	0.52	5.3	3.6	2.6	8.8	8.8
Zinc	mg/kg	22700 J	24400 J	34400 J	1900	1880	35600 J	-	-	-	-		-	-	-	-	-	-	-
PCBs																			
Aroclor-1016 (PCB-1016)	mg/kg	0.3 U	0.3 U	0.3 U	0.1 U	0.2 U	0.2 U	0.50 U	0.10 U	0.10 U	0.10 U		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Aroclor-1221 (PCB-1221)	mg/kg	0.3 U	0.3 U	0.3 U	0.1 U	0.2 U	0.2 U	1.0 U	0.20 U	0.20 U	0.20 U		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Aroclor-1232 (PCB-1232)	mg/kg	0.3 U	0.3 U	0.3 U	0.1 U	0.2 U	0.2 U	0.50 U	0.10 U	0.10 U	0.10 U		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Aroclor-1242 (PCB-1242)	mg/kg	1.6	1.2	4.8	1.5	1.3	1.8	0.54	0.58	0.15 J	1.3		0.35 U	0.39 U	0.55 U	0.28 J	0.33 J	0.69 U	0.81 U
Aroclor-1248 (PCB-1248)	mg/kg	0.3 U	0.3 U	0.3 U	0.1 U	0.2 U	0.2 U	0.50 U	0.10 U	0.10 U	0.10 U		0.35 U	0.048 J	0.057 J	0.61 U	0.57 U	0.17 J	0.074 J
Aroclor-1254 (PCB-1254)	mg/kg	0.6	0.4	2.2	0.5	0.4	0.7	0.50 U	0.10 U	0.10 U	0.10 U		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Aroclor-1260 (PCB-1260)	mg/kg	0.3 U	0.3 U	0.3 U	0.1	0.2 U	0.2 U	0.50 U	0.10 U	0.10 U	0.10 U		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-		0.35 U	0.39 U	0.55 U	0.61 U	0.57 U	0.69 U	0.81 U
Total PCBs	mg/kg	2.2	1.6	7	2.1	1.7	2.5	0.54	0.58	0.15 J	1.3		-	-	-	-	-	-	-
Wet																			
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-		9.9	9.4	51	110	26	35	64
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-		0.64 U	0.74 U	1.7	1.1	1.5	1.1 J	4.1
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-		5.0 U	0.19 J	5.0 U	5.0 U	5.0 U	5.0 U	0.15 J
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-		1.7 J	5.0 U	4.5 J	3.3 J	4.0 J	2.5 J	6.4
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-		8.44 J	8.21 J	9.84 J	9.50 J	9.87 J	8.83 J	8.65
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	23800 J	23600 J	28500 J	4270	5210	20400 J	-	-	-	-		-	-	-	-	-	-	-
Total organic carbon (TOC)	%	15.6	16.3	12.7	5.42	6.17	9.95	-	-	-	-		-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-		18000	19000	66000	68000	89000	47000	44000 J
Total solids	%	15	15.2	11.1	30.6	26.3	17.2	28.5	35.0	60.3	45.9		-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SD-236-11	SD-237-11	SD-238-11	SD-239-11	SD-239-11	SD-241-11	SED-334-16	SED-335-16	SED-336-16	SED-337-16	SED-341-16	SED-342-16
Sample ID:	S-58502-063011-SH-236	S-58502-063011-SH-237	S-58502-063011-SH-238	S-58502-063011-SH-239	S-58502-063011-SH-240	S-58502-063011-SH-241	S-58502-031716-SSH-1628	S-58502-031716-SSH-1630	S-58502-031716-SSH-1629	S-58502-032416-SSH-1640	S-58502-032416-SSH-1639	S-58502-032416-SSH-1638
Sample Date:	6/30/2011	6/30/2011	6/30/2011	6/30/2011	6/30/2011	6/30/2011	3/17/2016	3/17/2016	3/17/2016	3/24/2016	3/24/2016	3/24/2016
Sample Depth:	-	-	-	-	-	-	-	-	-	-	-	-
matrix_code	SE	SE	SE	SE	SE (Duplicate)	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
VOAs												
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,1-Dichloroethane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,1-Dichloroethene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
1,2-Dichloroethane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,2-Dichloropropane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	2.2 U	2.2 U	3 U	5 U	1.3 U	1.7 U
2-Hexanone	mg/kg	-	-	-	-	-	7.2 U	7.4 U	10 U	17 U	4.2 U	5.5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	7.2 U	7.4 U	10 U	17 U	4.2 U	5.5 U
Acetone	mg/kg	-	-	-	-	-	2.2 U	2.2 U	3 U	5 U	1.3 U	1.7 U
Benzene	mg/kg	-	-	-	-	-	0.32	0.46	0.2 U	0.33 U	0.085 U	0.11 U
Bromodichloromethane	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
Bromoform	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Carbon disulfide	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Carbon tetrachloride	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Chlorobenzene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Chloroethane	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Cyclohexane	mg/kg	-	-	-	-	-	3.4 U	3.5 U	4.8 U	7.9 U	2 U	2.6 U
Dibromochloromethane	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
Ethylbenzene	mg/kg	-	-	-	-	-	0.14	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Isopropyl benzene	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Methyl acetate	mg/kg	-	-	-	-	-	3.4 U	3.5 U	4.8 U	7.9 U	2 U	2.6 U
Methyl cyclohexane	mg/kg	-	-	-	-	-	3.4 U	3.5 U	4.8 U	7.9 U	2 U	2.6 U
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Methylene chloride	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Styrene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Tetrachloroethene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Toluene	mg/kg	-	-	-	-	-	0.41	0.55	0.4 U	0.66 U	0.17 U	0.22 U
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Trichloroethene	mg/kg	-	-	-	-	-	0.14 U	0.15 U	0.2 U	0.33 U	0.085 U	0.11 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	0.29 U	0.29 U	0.4 U	0.66 U	0.17 U	0.22 U
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	0.72 U	0.74 U	1 U	1.7 U	0.42 U	0.55 U
Vinyl chloride	mg/kg	-	-	-	-	-	0.11 U	0.12 U	0.16 U	0.26 U	0.068 U	0.088 U
Xylenes (total)	mg/kg	-	-	-	-	-	0.43 U	0.44 U	0.6 U	0.99 U	0.25 U	0.33 U
SVOAs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	5.7	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	2.5 U	3.4 U	1.2 U	0.67 U	0.84 U	0.28 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2-Chloronaphthalene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2-Chlorophenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2-Methylnaphthalene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2.5	1.2 U	1.5 U	0.49 U
2-Methylphenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
2-Nitroaniline	mg/kg	-	-	-	-	-	3.3 U	4.5 U	1.6 U	0.9 U	1.1 U	0.37 U
2-Nitrophenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
3&4-Methylphenol	mg/kg	-	-	-	-	-	5.6	5.9 U	2 U	1.2 U	1.5 U	0.49 U
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	27 U	36 U	12 U	7.2 U	8.9 U	3 U
3-Nitroaniline	mg/kg	-	-	-	-	-	3.3 U	4.5 U	1.6 U	0.9 U	1.1 U	0.37 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	2.5 U	3.4 U	1.2 U	0.67 U	0.84 U	0.28 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
4-Chloroaniline	mg/kg	-	-	-	-	-	3.3 U	4.5 U	1.6 U	0.9 U	1.1 U	0.37 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SD-236-11	SD-237-11	SD-238-11	SD-239-11	SD-239-11	SD-241-11	SED-334-16	SED-335-16	SED-336-16	SED-337-16	SED-341-16	SED-342-16
Sample ID:	S-58502-063011-SH-236	S-58502-063011-SH-237	S-58502-063011-SH-238	S-58502-063011-SH-239	S-58502-063011-SH-240	S-58502-063011-SH-241	S-58502-031716-SSH-1628	S-58502-031716-SSH-1630	S-58502-031716-SSH-1629	S-58502-032416-SSH-1640	S-58502-032416-SSH-1639	S-58502-032416-SSH-1638
Sample Date:	6/30/2011	6/30/2011	6/30/2011	6/30/2011	6/30/2011	6/30/2011	3/17/2016	3/17/2016	3/17/2016	3/24/2016	3/24/2016	3/24/2016
Sample Depth:	-	-	-	-	-	-	-	-	-	-	-	-
matrix_code	SE	SE	SE	SE	SE (Duplicate)	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	3.3 U	4.5 U	1.6 U	0.9 U	1.1 U	0.37 U
4-Nitrophenol	mg/kg	-	-	-	-	-	5.5 U	7.4 U	2.6 U	1.5 U	1.8 U	0.61 U
Acenaphthene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Acenaphthylene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Acetophenone	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Anthracene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Atrazine	mg/kg	-	-	-	-	-	0.67 U	0.9 U	0.31 U	0.18 U	0.22 U	0.074 U
Benzaldehyde	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Benzo(a)anthracene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Benzo(a)pyrene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	1.3 U	1.8 U	0.62 U	0.36 U	0.45 U	0.15 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Caprolactam	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Carbazole	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Chrysene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Dibenzofuran	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Diethyl phthalate	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Dimethyl phthalate	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Fluoranthene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Fluorene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Hexachlorobenzene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Hexachlorobutadiene	mg/kg	-	-	-	-	-	0.67 U	0.9 U	0.31 U	0.18 U	0.22 U	0.074 U
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Hexachloroethane	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Isophorone	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Naphthalene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Nitrobenzene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Pentachlorophenol	mg/kg	-	-	-	-	-	2.5 U	3.4 U	1.2 U	0.67 U	0.84 U	0.28 U
Phenanthrene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Phenol	mg/kg	-	-	-	-	-	14	11	2.6	1.2 U	1.5 U	0.49 U
Pyrene	mg/kg	-	-	-	-	-	4.4 U	5.9 U	2 U	1.2 U	1.5 U	0.49 U
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	1.0 J	3.2 J	3.2 J	0.77 J	0.87 J	3.5 J	-	-	-	-	-
Arsenic	mg/kg	7.7	14	14	5.0	6.1	9.8	R	R	1.1 J	-	-
Barium	mg/kg	78	130	140	74	81	280	-	-	-	-	-
Beryllium	mg/kg	0.19 U	1.9	1.8	0.25 U	0.93	2.6	-	-	-	-	-
Cadmium	mg/kg	1.4	6.0	5.2	0.72	0.67	2.0	6.4	7.1	8.9	0.21	1.5
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	0.37
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	46	130	110	39	47	130	76	72	70	-	-
Cobalt	mg/kg	7.3	7.7	8.4	5.3	5.8	5.2	-	-	-	-	-
Copper	mg/kg	44	130	120	30	34	67	R	R	R	5.0 J	19 J
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	210	840	760	120	140	370	860	790	710	28	280
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	1500	4800	4500	1300	1600	6900	-	-	-	-	-
Mercury	mg/kg	0.078	0.14	0.14	0.048 J	0.040 J	0.15	0.012 U	0.012 U	0.015 U	0.0078 U	0.0082 U
Nickel	mg/kg	26	46	43	19	22	24	23	22	27	6.4	13
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.89	3.1	2.9	0.84	0.89	3.1	-	-	-	-	-
Silver	mg/kg	0.58	2.3	1.9	0.59	0.78	1.3	R	R	R	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	6.0 J	18 U	19 U	0.17 J	0.23	0.86	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	23	22	27	18	20	17	-	-	-	-	-
Zinc	mg/kg	6800	26000	21000	1500	980	2100	5400	7200	8000	110	910

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SD-236-11	SD-237-11	SD-238-11	SD-239-11	SD-239-11	SD-241-11	SED-334-16	SED-335-16	SED-336-16	SED-337-16	SED-341-16	SED-342-16
Sample ID:		S-58502-063011-SH-236	S-58502-063011-SH-237	S-58502-063011-SH-238	S-58502-063011-SH-239	S-58502-063011-SH-240	S-58502-063011-SH-241	S-58502-031716-SSH-1628	S-58502-031716-SSH-1630	S-58502-031716-SSH-1629	S-58502-032416-SSH-1640	S-58502-032416-SSH-1639	S-58502-032416-SSH-1638
Sample Date:		6/30/2011	6/30/2011	6/30/2011	6/30/2011	6/30/2011	6/30/2011	3/17/2016	3/17/2016	3/17/2016	3/24/2016	3/17/2016	3/24/2016
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-
matrix_code		SE	SE	SE	SE	(Duplicate)	SE	SE	SE	SE	SE	SE	SE
Parameters	Units												
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	11	7.6	5.4	3.6	3.6	1.3	0.96	1.2	1.1	0.078	0.59	0.25
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	0.34 U	0.075 U	0.086 U	0.15 U	0.047 U	0.062 U
Aroclor-1221 (PCB-1221)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	0.34 U	0.075 U	0.086 U	0.15 U	0.047 U	0.062 U
Aroclor-1232 (PCB-1232)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	0.34 U	0.075 U	0.086 U	0.15 U	0.047 U	0.062 U
Aroclor-1242 (PCB-1242)	mg/kg	0.073 J	0.1 J	0.75 U	0.2 J	2.6 J	4.2 J	0.66	0.35	0.2	0.15 U	0.38	0.13
Aroclor-1248 (PCB-1248)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	0.34 U	0.075 U	0.086 U	0.15 U	0.047 U	0.062 U
Aroclor-1254 (PCB-1254)	mg/kg	0.052 J	0.068 J	0.75 U	0.42 U	0.7 J	0.99 J	0.34 U	0.075 U	0.086 U	0.15 U	0.13	0.062 U
Aroclor-1260 (PCB-1260)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	0.34 U	0.075 U	0.086 U	0.15 U	0.047 U	0.062 U
Aroclor-1262 (PCB-1262)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	-	-	-	-	-	-
Aroclor-1268 (PCB-1268)	mg/kg	0.51 U	0.67 U	0.75 U	0.42 U	4.1 U	5.5 U	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Wet													
Ammonia	mg/kg	46	82	47	85	65	61	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	0.96 U	2.0	2.5	0.78 U	0.74 U	3.5	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	82	110	120	25	46	13
Nitrate (as N)	mg/kg	5.0 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-
Nitrite (as N)	mg/kg	5.0 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U	-	-	-	-	-	-
Orthophosphate	mg/kg	3.9 J	3.8 J	2.7 J	4.3 J	2.7 J	1.7 J	-	-	-	-	-	-
pH, lab	s.u.	8.80	8.71	8.77	8.48	8.36	8.70	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	3000	3000	3900	840	860	350
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	41000 J	37000 J	37000 J	32000 J	20000 J	57000 J	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SED-346-16	SED-351-16	SED-353-16	SO-352-16	SO-354-16	SS-01	SS-01	SS-02	SS-02	SS-03	SS-04
Sample ID:	S-58502-031716-SSH-1627	S-58502-031716-SSH-1625	S-58502-031716-SSH-1626	S-58502-032416-SSH-1642	S-58502-032416-SSH-1641	S-58502-050516-SSH-SS1AS-58502-050516-SSH-SS1BS-58502-050516-SSH-SS2AS-58502-050516-SSH-SS2BS-58502-050516-SSH-SS3AS-58502-050516-SSH-SS4A					
Sample Date:	3/17/2016	3/17/2016	3/17/2016	3/24/2016	3/24/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016
Sample Depth:	-	-	-	-	-	(0-1) ft BGS	(1-1.92) ft BGS	(0-0.67) ft BGS	(0.67-2) ft BGS	(0.25-1.67) ft BGS	(0-1) ft BGS
matrix_code	SE	SE	SE	CL	CL	SE	CL	SE	SE	SE	SE
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,1-Dichloroethane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,1-Dichloroethene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
1,2-Dichloroethane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,2-Dichloropropane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	2.4 U	2 U	3.4 U	2.9 U	0.89 U	-	-	-	-	-
2-Hexanone	mg/kg	8.2 U	6.8 U	11 U	9.6 U	3 U	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	8.2 U	6.8 U	11 U	9.6 U	3 U	-	-	-	-	-
Acetone	mg/kg	2.4 U	2 U	3.4 U	2.9 U	0.89 U	-	-	-	-	-
Benzene	mg/kg	0.16 U	0.28	0.22 U	0.34 J	0.059 U	-	-	-	-	-
Bromodichloromethane	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
Bromoform	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Carbon disulfide	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Chlorobenzene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Chloroethane	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Cyclohexane	mg/kg	3.9 U	3.2 U	5.4 U	4.6 U	1.4 U	-	-	-	-	-
Dibromochloromethane	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
Ethylbenzene	mg/kg	0.16 U	0.17	0.22 U	0.22 J	0.059 U	-	-	-	-	-
Isopropyl benzene	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Methyl acetate	mg/kg	3.9 U	3.2 U	5.4 U	4.6 U	1.4 U	-	-	-	-	-
Methyl cyclohexane	mg/kg	3.9 U	3.2 U	5.4 U	4.6 U	1.4 U	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Methylene chloride	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Styrene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Tetrachloroethene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Toluene	mg/kg	0.33 U	0.32	0.45 U	0.43 J	0.12 U	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Trichloroethene	mg/kg	0.16 U	0.14 U	0.22 U	0.19 U	0.059 U	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	0.33 U	0.27 U	0.45 U	0.38 U	0.12 U	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	0.82 U	0.68 U	1.1 U	0.96 U	0.3 U	-	-	-	-	-
Vinyl chloride	mg/kg	0.13 U	0.11 U	0.18 U	0.15 U	0.048 U	-	-	-	-	-
Xylenes (total)	mg/kg	0.49 U	0.41 U	0.67 U	0.58 U	0.18 U	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	1.4 U	0.31 U	0.8 U	2.6 U	0.19 U	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2-Chloronaphthalene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2-Chlorophenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2-Methylnaphthalene	mg/kg	2.4 U	1.6	1.7	4.5 U	0.33 U	-	-	-	-	-
2-Methylphenol	mg/kg	2.4 U	0.66	1.4 U	4.5 U	0.33 U	-	-	-	-	-
2-Nitroaniline	mg/kg	1.8 U	0.41 U	1.1 U	3.4 U	0.25 U	-	-	-	-	-
2-Nitrophenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
3&4-Methylphenol	mg/kg	2.4 U	0.65	1.4 U	4.5 U	0.33 U	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	15 U	3.3 U	8.5 U	27 U	2 U	-	-	-	-	-
3-Nitroaniline	mg/kg	1.8 U	0.41 U	1.1 U	3.4 U	0.25 U	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	1.4 U	0.31 U	0.8 U	2.6 U	0.19 U	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
4-Chloroaniline	mg/kg	1.8 U	0.41 U	1.1 U	3.4 U	0.25 U	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SED-346-16	SED-351-16	SED-353-16	SO-352-16	SO-354-16	SS-01	SS-01	SS-02	SS-02	SS-03	SS-04
Sample ID:	S-58502-031716-SSH-1627	S-58502-031716-SSH-1625	S-58502-031716-SSH-1626	S-58502-032416-SSH-1642	S-58502-032416-SSH-1641	S-58502-050516-SSH-SS1AS	S-58502-050516-SSH-SS1BS	S-58502-050516-SSH-SS2AS	S-58502-050516-SSH-SS2BS	S-58502-050516-SSH-SS3AS	S-58502-050516-SSH-SS4A
Sample Date:	3/17/2016	3/17/2016	3/17/2016	3/24/2016	3/24/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016
Sample Depth:	-	-	-	-	-	(0-1) ft BGS	(1-1.92) ft BGS	(0-0.67) ft BGS	(0.67-2) ft BGS	(0.25-1.67) ft BGS	(0-1) ft BGS
matrix_code	SE	SE	SE	CL	CL	SE	CL	SE	SE	SE	SE
Parameters	Units										
4-Nitroaniline	mg/kg	1.8 U	0.41 U	1.1 U	3.4 U	0.25 U	-	-	-	-	-
4-Nitrophenol	mg/kg	3 U	0.67 U	1.8 U	5.7 U	0.41 U	-	-	-	-	-
Acenaphthene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Acenaphthylene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Acetophenone	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Anthracene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Atrazine	mg/kg	0.37 U	0.082 U	0.21 U	0.69 U	0.05 U	-	-	-	-	-
Benzaldehyde	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Benzo(a)anthracene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Benzo(a)pyrene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	0.73 U	0.16 U	0.43 U	1.4 U	0.1 U	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	2.4 U	0.63	1.4 U	4.5 U	0.49	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Caprolactam	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Carbazole	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Chrysene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Dibenzofuran	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Diethyl phthalate	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Dimethyl phthalate	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Fluoranthene	mg/kg	2.4 U	1.1	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Fluorene	mg/kg	2.4 U	0.56	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Hexachlorobenzene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.37 U	0.082 U	0.21 U	0.69 U	0.05 U	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Hexachloroethane	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Isophorone	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Naphthalene	mg/kg	2.4 U	1	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Nitrobenzene	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	2.4 U	0.54 U	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Pentachlorophenol	mg/kg	1.4 U	0.31 U	0.8 U	2.6 U	0.19 U	-	-	-	-	-
Phenanthrene	mg/kg	2.4 U	1.3	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Phenol	mg/kg	2.4 U	1.3	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Pyrene	mg/kg	2.4 U	0.97	1.4 U	4.5 U	0.33 U	-	-	-	-	-
Metals											
Aluminum	mg/kg	-	-	-	-	5500	7400	-	-	15000	6700
Antimony	mg/kg	-	-	-	-	0.35	0.14	-	-	2.4	0.28
Arsenic	mg/kg	R	R	2.0 J	-	2.8	3.3	-	-	8.0	3.3
Barium	mg/kg	-	-	-	-	33	43	-	-	98	46
Beryllium	mg/kg	-	-	-	-	0.29	0.36	-	-	1.2	0.40
Cadmium	mg/kg	20	5.0	7.1	3.1	0.15 U	0.58	-	-	3.2	0.23
Calcium	mg/kg	-	-	-	-	66000	68000	-	-	24000	59000
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	72	97	90	-	15	22	-	-	79	20
Cobalt	mg/kg	-	-	-	-	3.9	4.9	-	-	4.5	4.1
Copper	mg/kg	R	13 J	R	27 J	13	16	-	-	66	30
Iron	mg/kg	-	-	-	-	9300	14000	-	-	43000	12000
Lead	mg/kg	1500	510	760	540	3.4	11	-	-	490	24
Magnesium	mg/kg	-	-	-	-	20000	22000	-	-	7000	19000
Manganese	mg/kg	-	-	-	-	640	360	-	-	830	610
Mercury	mg/kg	0.027 U	0.012 U	0.018 U	0.0097 U	0.0059 U	0.057 U	0.045 U	-	0.083 U	0.044 U
Nickel	mg/kg	34	25	22	19	5.9 U	12	18	-	23	13
Potassium	mg/kg	-	-	-	-	1200	1600	-	-	1600	1300
Selenium	mg/kg	-	-	-	-	1.9	2.1	-	-	4.8	2.2
Silver	mg/kg	R	R	R	-	0.10 U	0.070 U	-	-	1.4	0.096 U
Sodium	mg/kg	-	-	-	-	290	200	-	-	840	260
Thallium	mg/kg	-	-	-	-	0.17	0.11	-	-	0.51	0.11
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	13	16	-	-	15	14
Zinc	mg/kg	19000	3600	7700	9300	16	150	77	-	420	340

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SED-346-16	SED-351-16	SED-353-16	SO-352-16	SO-354-16	SS-01	SS-01	SS-02	SS-02	SS-03	SS-04	
Sample ID:	S-58502-031716-SSH-1627	S-58502-031716-SSH-1625	S-58502-031716-SSH-1626	S-58502-032416-SSH-1642	S-58502-032416-SSH-1641	S-58502-050516-SSH-SS1AS-58502-050516-SSH-SS1BS-58502-050516-SSH-SS2AS-58502-050516-SSH-SS2BS-58502-050516-SSH-SS3AS-58502-050516-SSH-SS4A						
Sample Date:	3/17/2016	3/17/2016	3/17/2016	3/24/2016	3/24/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	
Sample Depth:	-	-	-	-	-	(0-1) ft BGS	(1-1.92) ft BGS	(0-0.67) ft BGS	(0.67-2) ft BGS	(0.25-1.67) ft BGS	(0-1) ft BGS	
matrix_code	SE	SE	SE	CL	CL	SE	CL	SE	SE	SE	SE	
Parameters	Units											
MetalsSEM												
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	0.54	2.7	1.4	13	0.0010 U	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	1.5 U	0.066 U	0.088 U	0.85 U	0.041 U	0.051 U	0.039 U	0.072 U	0.052 U	0.06 U	0.042 U
Aroclor-1221 (PCB-1221)	mg/kg	1.5 U	0.066 U	0.088 U	0.85 U	0.041 U	0.051 U	0.039 U	0.072 U	0.052 U	0.06 U	0.042 U
Aroclor-1232 (PCB-1232)	mg/kg	1.5 U	0.066 U	0.088 U	0.85 U	0.041 U	0.051 U	0.039 U	0.072 U	0.052 U	0.06 U	0.042 U
Aroclor-1242 (PCB-1242)	mg/kg	7.6	0.34	0.36	3.6	0.061	0.051 U	0.039 U	0.072 U	0.13	0.06 U	0.042 U
Aroclor-1248 (PCB-1248)	mg/kg	1.5 U	0.066 U	0.088 U	0.85 U	0.041 U	0.051 U	0.039 U	0.2	0.052 U	0.34	0.042 U
Aroclor-1254 (PCB-1254)	mg/kg	1.5 U	0.075	0.16	0.85 U	0.041 U	0.051 U	0.039 U	0.072 U	0.052 U	0.06 U	0.042 U
Aroclor-1260 (PCB-1260)	mg/kg	1.5 U	0.066 U	0.088 U	0.85 U	0.041 U	0.051 U	0.039 U	0.072 U	0.052 U	0.06	0.042 U
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Wet												
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	
Cyanide (total)	mg/kg	-	-	-	-	-	340	160	-	-	370	150
Formaldehyde	mg/kg	97	84	64	52	3.6	0.83 U	0.55 U	-	-	0.92 U	1.1 J
Nitrate (as N)	mg/kg	-	-	-	-	-	3.2 J	R	-	-	40 J	R
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	18000	740	2900	360	18 U	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	6000	-	-	-	16000	3500
Total solids	%	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-04	SS-05	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-09	SS-09	SS-10
Sample ID:	S-58502-050516-SSH-SS4BS-58502-050516-SSH-SS5AS-58502-050316-SSH-SS06AS-58502-050316-SSH-SS06BS-58502-050316-SSH-SS07AS-58502-050316-SSH-SS07BS-58502-050316-SSH-SS08AS-58502-050316-SSH-SS08BS-58502-050316-SSH-SS09AS-58502-050316-SSH-SS09BS-58502-050316-SSH-SS10A										
Sample Date:	5/5/2016	5/5/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016
Sample Depth:	(1-1.83) ft BGS	(0.92-1.5) ft BGS	(0-1.75) ft BGS	(1.75-2.5) ft BGS	(0-0.67) ft BGS	(0.67-4.75) ft BGS	(0-1.08) ft BGS	(1.08-2.25) ft BGS	(0-0.83) ft BGS	(0.83-3.08) ft BGS	(0-1.08) ft BGS
matrix_code	SE	CL	SE	CL	SE	SE	SE	SE	SE	SE	SE
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-04	SS-05	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-09	SS-09	SS-10	
Sample ID:	S-58502-050516-SSH-SS4BS-58502-050516-SSH-SS5AS-58502-050316-SSH-SS06AS-58502-050316-SSH-SS06BS-58502-050316-SSH-SS07AS-58502-050316-SSH-SS07BS-58502-050316-SSH-SS08AS-58502-050316-SSH-SS08BS-58502-050316-SSH-SS09AS-58502-050316-SSH-SS09BS-58502-050316-SSH-SS10A											
Sample Date:	5/5/2016	5/5/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	
Sample Depth:	(1-1.83) ft BGS	(0.92-1.5) ft BGS	(0-1.75) ft BGS	(1.75-2.5) ft BGS	(0-0.67) ft BGS	(0.67-4.75) ft BGS	(0-1.08) ft BGS	(1.08-2.25) ft BGS	(0-0.83) ft BGS	(0.83-3.08) ft BGS	(0-1.08) ft BGS	
matrix_code	SE	CL	SE	CL	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	
Metals												
Aluminum	mg/kg	6100	6600	14000	8000	20000	22000	-	-	13000	20000	7300
Antimony	mg/kg	0.14 U	0.38	22	0.47	3.5	3.2	-	-	2.3	2.9	3.2
Arsenic	mg/kg	3.0	3.1	36	4.5	13	13	-	-	8.2	12	7.5
Barium	mg/kg	39	43	140	57	150	150	-	-	81	89	50
Beryllium	mg/kg	0.32	0.35	1.2	0.49	1.7	1.8	-	-	1.1	1.5	0.56
Cadmium	mg/kg	0.18	0.82	17	0.47	5.4	5.3	-	-	2.2	3.1	5.3
Calcium	mg/kg	63000	72000	51000 J	33000 J	38000 J	29000 J	-	-	21000 J	23000 J	14000 J
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	17	17	110	47	110	130	-	-	71	130	43
Cobalt	mg/kg	4.4	4.6	8.8	4.0	5.4	5.5	-	-	3.9	7.5	2.2
Copper	mg/kg	11	17	350	25	96	100	-	-	57	97	41
Iron	mg/kg	11000	10000	42000	15000	55000	63000	-	-	39000	70000	20000
Lead	mg/kg	16	38	1300	94	770	780	-	-	380	420	120
Magnesium	mg/kg	20000	22000	8800	8300	9200	8600	-	-	4800	7700	2300
Manganese	mg/kg	420	610	4400	1000	6300	6800	-	-	2200	3800	1100
Mercury	mg/kg	0.049 U	0.055 U	0.13 U	0.047 U	0.33	0.076 U	-	-	0.11 U	0.075 U	0.061 U
Nickel	mg/kg	14	14	38	31	28	29	-	-	23	46	12
Potassium	mg/kg	1200	1400	1700	1000	2500	3100	-	-	1200	1900	660 U
Selenium	mg/kg	1.9	2.0	20	2.5	7.6	7.4	-	-	4.9	6.8	2.9
Silver	mg/kg	0.072 U	0.12	3.9	0.15	2.4	2.5	-	-	0.83	1.3	0.34
Sodium	mg/kg	200	280	1300	67 U	1200	1200	-	-	940	1200	130 U
Thallium	mg/kg	0.11	0.25	9.3	0.21	1.1	0.98	-	-	0.45	0.66	0.96
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	14	15	53	15	18	19	-	-	14	19	11
Zinc	mg/kg	180	230	24000	340	3900	3300	-	-	1800	3100	1100

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-04	SS-05	SS-06	SS-06	SS-07	SS-07	SS-08	SS-08	SS-09	SS-09	SS-10
Sample ID:		S-58502-050516-SSH-SS4BS-58502-050516-SSH-SS5AS-58502-050316-SSH-SS06AS-58502-050316-SSH-SS06BS-58502-050316-SSH-SS07AS-58502-050316-SSH-SS07BS-58502-050316-SSH-SS08AS-58502-050316-SSH-SS08BS-58502-050316-SSH-SS09AS-58502-050316-SSH-SS09BS-58502-050316-SSH-SS10A										
Sample Date:		5/5/2016	5/5/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016
Sample Depth:		(1-1.83) ft BGS	(0.92-1.5) ft BGS	(0-1.75) ft BGS	(1.75-2.5) ft BGS	(0-0.67) ft BGS	(0.67-4.75) ft BGS	(0-1.08) ft BGS	(1.08-2.25) ft BGS	(0-0.83) ft BGS	(0.83-3.08) ft BGS	(0-1.08) ft BGS
matrix_code		SE	CL	SE	CL	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
MetalsSEM												
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	0.04 U	0.046 U	1.1 U	0.041 U	0.69 U	0.33 U	0.057 U	0.04 U	0.89 U	0.065 U	0.058 U
Aroclor-1221 (PCB-1221)	mg/kg	0.04 U	0.046 U	1.1 U	0.041 U	0.69 U	0.33 U	0.057 U	0.04 U	0.89 U	0.065 U	0.058 U
Aroclor-1232 (PCB-1232)	mg/kg	0.04 U	0.046 U	1.1 U	0.041 U	0.69 U	0.33 U	0.057 U	0.04 U	0.89 U	0.065 U	0.058 U
Aroclor-1242 (PCB-1242)	mg/kg	0.04 U	0.046 U	1.1 U	0.11	2.6	2.9	0.13	0.04 U	0.89 U	0.086	0.089
Aroclor-1248 (PCB-1248)	mg/kg	0.04 U	0.049	1.1 U	0.041 U	0.69 U	0.33 U	0.057 U	0.04 U	0.89 U	0.065 U	0.058 U
Aroclor-1254 (PCB-1254)	mg/kg	0.04 U	0.046 U	1.1 U	0.067	0.69 U	0.62	0.057 U	0.04 U	0.89 U	0.075	0.058 U
Aroclor-1260 (PCB-1260)	mg/kg	0.04 U	0.046 U	1.1 U	0.041 U	0.69 U	0.33 U	0.057 U	0.04 U	0.89 U	0.065 U	0.058 U
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Wet												
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	140	170	720	120	230	95 U	-	-	150	97 U	84 U
Cyanide (total)	mg/kg	0.56 U	0.65 U	8.2 U	0.62 U	1.7	1.4	-	-	1.5 U	1.0 U	0.87 U
Formaldehyde	mg/kg	R	3.0 J	50	4.1	83	57	-	-	55	91	30
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	100000	-	-	-	-	-	-	-	14000
Total solids	%	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-10	SS-11	SS-11	SS-12	SS-12	SS-13	SS-13	SS-14	SS-14	SS-14	SS-14
Sample ID:	S-58502-050316-SSH-SS10BS-58502-050316-SSH-SS11AS-58502-050316-SSH-SS11BS-58502-050316-SSH-SS12AS-58502-050316-SSH-SS12BS-58502-050316-SSH-SS13AS-58502-050316-SSH-SS13BS-58502-050316-SSH-SS14AS-58502-050316-SSH-SS14BS-58502-050316-SSH-SS14CS-58502-050316-SSH-SS14D										
Sample Date:	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016
Sample Depth:	(1.08-4.83) ft BGS	(0-2.17) ft BGS	(2.17-2.83) ft BGS	(0-1) ft BGS	(1-3.67) ft BGS	(0-2.5) ft BGS	(2.5-4.5) ft BGS	(0-2.08) ft BGS	(2.08-3.75) ft BGS	(3.75-4.75) ft BGS	(3.75-4.75) ft BGS
matrix_code	SE	SE	CL	SE	SE	SE	SE	SE	SE	CL	CL (Duplicate)
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-10	SS-11	SS-11	SS-12	SS-12	SS-13	SS-13	SS-14	SS-14	SS-14	SS-14
Sample ID:		S-58502-050316-SSH-SS10BS-58502-050316-SSH-SS11AS-58502-050316-SSH-SS11BS-58502-050316-SSH-SS12AS-58502-050316-SSH-SS12BS-58502-050316-SSH-SS13AS-58502-050316-SSH-SS13BS-58502-050316-SSH-SS14AS-58502-050316-SSH-SS14BS-58502-050316-SSH-SS14CS-58502-050316-SSH-SS14D										
Sample Date:		5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016
Sample Depth:		(1.08-4.83) ft BGS	(0-2.17) ft BGS	(2.17-2.83) ft BGS	(0-1) ft BGS	(1-3.67) ft BGS	(0-2.5) ft BGS	(2.5-4.5) ft BGS	(0-2.08) ft BGS	(2.08-3.75) ft BGS	(3.75-4.75) ft BGS	(3.75-4.75) ft BGS
matrix_code		SE	SE	CL	SE	SE	SE	SE	SE	SE	CL	CL (Duplicate)
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	14000	28000	6900	-	-	18000	18000	-	-	-	-
Antimony	mg/kg	1.5	4.6	0.36	-	-	7.7	2.2	-	-	-	-
Arsenic	mg/kg	7.0	18	3.5	-	-	24	11	-	-	-	-
Barium	mg/kg	86	190	49	-	-	150	100	-	-	-	-
Beryllium	mg/kg	0.95	2.2	0.40	-	-	1.5	1.3	-	-	-	-
Cadmium	mg/kg	1.9	5.1	0.61	-	-	12	2.5	-	-	-	-
Calcium	mg/kg	23000 J	38000 J	58000 J	-	-	59000 J	26000 J	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	83	170	20	-	-	150	100	-	-	-	-
Cobalt	mg/kg	4.0	8.9	5.9	-	-	8.1	5.4	-	-	-	-
Copper	mg/kg	62	130	17	-	-	220	78	-	-	-	-
Iron	mg/kg	42000	79000	13000	-	-	69000	58000	-	-	-	-
Lead	mg/kg	270	700	64	-	-	1500	380	-	-	-	-
Magnesium	mg/kg	5400	10000	17000	-	-	10000	7200	-	-	-	-
Manganese	mg/kg	2900	7800	540	-	-	8000	4000	-	-	-	-
Mercury	mg/kg	0.061 U	0.12 U	0.057 U	-	-	0.19 U	0.068 U	-	-	-	-
Nickel	mg/kg	24	47	16	-	-	47	33	-	-	-	-
Potassium	mg/kg	1400	1800	880	-	-	1700	2100	-	-	-	-
Selenium	mg/kg	4.2	10	3.2	-	-	9.2	6.0	-	-	-	-
Silver	mg/kg	0.88	2.9	0.26	-	-	3.8	1.1	-	-	-	-
Sodium	mg/kg	930	1000	96 U	-	-	1100	930	-	-	-	-
Thallium	mg/kg	0.40	1.1	0.16	-	-	1.6	0.51	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	15	29	16	-	-	28	17	-	-	-	-
Zinc	mg/kg	1200	8100	1500	-	-	33000	2100	-	-	-	-

Table B.1													Page 15
Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan													
Sample Location:	SS-10	SS-11	SS-11	SS-12	SS-12	SS-13	SS-13	SS-14	SS-14	SS-14	SS-14	SS-14	
Sample ID:	S-58502-050316-SSH-SS10BS-58502-050316-SSH-SS11AS-58502-050316-SSH-SS11BS-58502-050316-SSH-SS12AS-58502-050316-SSH-SS12BS-58502-050316-SSH-SS13AS-58502-050316-SSH-SS13BS-58502-050316-SSH-SS14AS-58502-050316-SSH-SS14BS-58502-050316-SSH-SS14CS-58502-050316-SSH-SS14D												
Sample Date:	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	5/3/2016	
Sample Depth:	(1.08-4.83) ft BGS	(0-2.17) ft BGS	(2.17-2.83) ft BGS	(0-1) ft BGS	(1-3.67) ft BGS	(0-2.5) ft BGS	(2.5-4.5) ft BGS	(0-2.08) ft BGS	(2.08-3.75) ft BGS	(3.75-4.75) ft BGS	(3.75-4.75) ft BGS	(3.75-4.75) ft BGS	
matrix_code	SE	SE	CL	SE	SE	SE	SE	SE	SE	CL	CL	(Duplicate)	
Parameters	Units												
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	0.056 U	0.49 U	0.22 U	1.2 U	12 U	0.68 U	0.61 U	0.48 U	0.48 U	0.44 U	0.45 U	
Aroclor-1221 (PCB-1221)	mg/kg	0.056 U	0.49 U	0.22 U	1.2 U	12 U	0.68 U	0.61 U	0.48 U	0.48 U	0.44 U	0.45 U	
Aroclor-1232 (PCB-1232)	mg/kg	0.056 U	0.49 U	0.22 U	1.2 U	12 U	0.68 U	0.61 U	0.48 U	0.48 U	0.44 U	0.45 U	
Aroclor-1242 (PCB-1242)	mg/kg	0.27	2.7	0.39	1.2 U	39	0.68 U	3.2	2.2	1.8	1.5	1.7	
Aroclor-1248 (PCB-1248)	mg/kg	0.056 U	0.49 U	0.22 U	1.2 U	12 U	2.6	0.61 U	0.48 U	0.48 U	0.44 U	0.45 U	
Aroclor-1254 (PCB-1254)	mg/kg	0.12	0.97	0.22 U	1.2 U	12 U	0.68 U	0.61 U	0.48 U	0.48 U	0.44 U	0.45 U	
Aroclor-1260 (PCB-1260)	mg/kg	0.056 U	0.49 U	0.22 U	1.2 U	12 U	0.68 U	0.61 U	0.48 U	0.48 U	0.44 U	0.45 U	
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Wet													
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Ammonia-N	mg/kg	82 U	480	74	-	-	620	91 U	-	-	-	-	
Cyanide (total)	mg/kg	0.88 U	13	0.66 U	-	-	2.0 U	1.9	-	-	-	-	
Formaldehyde	mg/kg	75	98	8.3	-	-	130	68	-	-	-	-	
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	mg/kg	17000	-	-	-	-	52000	140000	-	-	-	-	
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	
Notes:													
U	Not detected at the associated reporting limit.												
J	Estimated concentration.												
UJ	Not detected; associated reporting limit is estimated.												
R	Rejected.												

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-15	SS-15	SS-16	SS-16	SS-17	SS-17	SS-18	SS-18	SS-18	SS-19	SS-19
Sample ID:	S-58502-050316-SSH-SS15AS-58502-050316-SSH-SS15BS-58502-050416-SSH-SS16AS-58502-050416-SSH-SS16BS-58502-050416-SSH-SS17AS-58502-050416-SSH-SS17BS-58502-050416-SSH-SS18AS-58502-050416-SSH-SS18BS-58502-050416-SSH-SS18CS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS1										

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-15	SS-15	SS-16	SS-16	SS-17	SS-17	SS-18	SS-18	SS-18	SS-19	SS-19
Sample ID:	S-58502-050316-SSH-SS15AS-58502-050316-SSH-SS15BS-58502-050416-SSH-SS16AS-58502-050416-SSH-SS16BS-58502-050416-SSH-SS17AS-58502-050416-SSH-SS17BS-58502-050416-SSH-SS18AS-58502-050416-SSH-SS18BS-58502-050416-SSH-SS18CS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19B										
Sample Date:	5/3/2016	5/3/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016
Sample Depth:	(0-2.25) ft BGS	(2.25-2.83) ft BGS	(0-1.42) ft BGS	(2.17-3.42) ft BGS	(0-1.33) ft BGS	(1.33-2.67) ft BGS	(0.83-1.67) ft BGS	(1.67-4.58) ft BGS	(4.58-4.92) ft BGS	(0.33-0.83) ft BGS	(0.83-4.67) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	CL	SE	SE
Parameters	Units										
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Metals											
Aluminum	mg/kg	21000	32000	-	-	-	-	-	-	-	-
Antimony	mg/kg	3.9	5.0	-	-	-	-	-	-	-	-
Arsenic	mg/kg	12	20	-	-	-	-	-	-	-	-
Barium	mg/kg	150	210	-	-	-	-	-	-	-	-
Beryllium	mg/kg	1.3	2.2	-	-	-	-	-	-	-	-
Cadmium	mg/kg	2.5	3.8	-	-	-	-	-	-	-	-
Calcium	mg/kg	24000 J	37000 J	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	130	190	-	-	-	-	-	-	-	-
Cobalt	mg/kg	5.6	9.9	-	-	-	-	-	-	-	-
Copper	mg/kg	85	140	-	-	-	-	-	-	-	-
Iron	mg/kg	53000	90000	-	-	-	-	-	-	-	-
Lead	mg/kg	370	660	-	-	-	-	-	-	-	-
Magnesium	mg/kg	8000	13000	-	-	-	-	-	-	-	-
Manganese	mg/kg	4900	9400	-	-	-	-	-	-	-	-
Mercury	mg/kg	0.085 U	0.13 U	-	-	-	-	-	-	-	-
Nickel	mg/kg	31	54	-	-	-	-	-	-	-	-
Potassium	mg/kg	1600	2400	-	-	-	-	-	-	-	-
Selenium	mg/kg	7.6	12	-	-	-	-	-	-	-	-
Silver	mg/kg	1.9	3.0	-	-	-	-	-	-	-	-
Sodium	mg/kg	900	1200	-	-	-	-	-	-	-	-
Thallium	mg/kg	0.90	1.2	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	19	28	-	-	-	-	-	-	-	-
Zinc	mg/kg	2500	3100	-	-	-	-	-	-	-	-

Table B.1													Page 18
Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan													
Sample Location:	SS-15	SS-15	SS-16	SS-16	SS-17	SS-17	SS-18	SS-18	SS-18	SS-19	SS-19		
Sample ID:	S-58502-050316-SSH-SS15AS-58502-050316-SSH-SS15BS-58502-050416-SSH-SS16AS-58502-050416-SSH-SS16BS-58502-050416-SSH-SS17AS-58502-050416-SSH-SS17BS-58502-050416-SSH-SS18AS-58502-050416-SSH-SS18BS-58502-050416-SSH-SS18CS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416-SSH-SS19BS-58502-050416-SSH-SS19CS-58502-050416-SSH-SS19DS-58502-050416-SSH-SS19ES-58502-050416-SSH-SS19FS-58502-050416-SSH-SS19GS-58502-050416-SSH-SS19HS-58502-050416-SSH-SS19IS-58502-050416-SSH-SS19JS-58502-050416-SSH-SS19KS-58502-050416-SSH-SS19LS-58502-050416-SSH-SS19MS-58502-050416-SSH-SS19NS-58502-050416-SSH-SS19OS-58502-050416-SSH-SS19PS-58502-050416-SSH-SS19QS-58502-050416-SSH-SS19RS-58502-050416-SSH-SS19SS-58502-050416-SSH-SS19TS-58502-050416-SSH-SS19US-58502-050416-SSH-SS19VS-58502-050416-SSH-SS19WS-58502-050416-SSH-SS19XS-58502-050416-SSH-SS19YS-58502-050416-SSH-SS19ZS-58502-050416-SSH-SS19AS-58502-050416												

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-19	SS-20	SS-20	SS-21	SS-21	SS-21	SS-22	SS-22	SS-23	SS-23	SS-24
Sample ID:	S-58502-050416-SSH-SS19CS-58502-050416-SSH-SS20AS-58502-050416-SSH-SS20BS-58502-050416-SSH-SS21AS-58502-050416-SSH-SS21BS-58502-050416-SSH-SS21CS-58502-050416-SSH-SS22AS-58502-050416-SSH-SS22BS-58502-050416-SSH-SS23AS-58502-050416-SSH-SS23BS-58502-050416-SSH-SS24A										
Sample Date:	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016
Sample Depth:	(4.67-4.83) ft BGS	(0-1.75) ft BGS	(1.75-2.75) ft BGS	(0.17-1) ft BGS	(1-2.5) ft BGS	(2.5-3.25) ft BGS	(0-0.5) ft BGS	(0.5-4.83) ft BGS	(0-2.5) ft BGS	(2.5-3.5) ft BGS	(0-2.67) ft BGS
matrix_code	CL	SE	SE	SE	SE	CL	SE	SE	SE	CL	SE
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-19	SS-20	SS-20	SS-21	SS-21	SS-21	SS-22	SS-22	SS-23	SS-23	SS-24
Sample ID:	S-58502-050416-SSH-SS19CS-58502-050416-SSH-SS20AS-58502-050416-SSH-SS20BS-58502-050416-SSH-SS21AS-58502-050416-SSH-SS21BS-58502-050416-SSH-SS21CS-58502-050416-SSH-SS22AS-58502-050416-SSH-SS22BS-58502-050416-SSH-SS23AS-58502-050416-SSH-SS23BS-58502-050416-SSH-SS24A										
Sample Date:	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016
Sample Depth:	(4.67-4.83) ft BGS	(0-1.75) ft BGS	(1.75-2.75) ft BGS	(0.17-1) ft BGS	(1-2.5) ft BGS	(2.5-3.25) ft BGS	(0-0.5) ft BGS	(0.5-4.83) ft BGS	(0-2.5) ft BGS	(2.5-3.5) ft BGS	(0-2.67) ft BGS
matrix_code	CL	SE	SE	SE	SE	CL	SE	SE	SE	CL	SE
Parameters	Units										
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Metals											
Aluminum	mg/kg	-	14000	16000	-	-	-	-	-	22000	12000
Antimony	mg/kg	-	8.6 J	1.3 J	-	-	-	-	-	0.63 UJ	0.47 J
Arsenic	mg/kg	-	20	9.8	-	-	-	-	-	4.4	11
Barium	mg/kg	-	120	93	-	-	-	-	-	170	87
Beryllium	mg/kg	-	1.6	0.97	-	-	-	-	-	2.7	0.99
Cadmium	mg/kg	-	11	1.1	-	-	-	-	-	13	9.8
Calcium	mg/kg	-	45000 J	44000 J	-	-	-	-	-	51000 J	46000 J
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	130	65	-	-	-	-	-	180	110
Cobalt	mg/kg	-	6.0	4.9	-	-	-	-	-	8.1	5.2
Copper	mg/kg	-	190	46	-	-	-	-	-	210	190
Iron	mg/kg	-	61000	31000	-	-	-	-	-	90000	45000
Lead	mg/kg	-	1400	200	-	-	-	-	-	1400	1100
Magnesium	mg/kg	-	8400	11000	-	-	-	-	-	14000	7400
Manganese	mg/kg	-	4900	2600	-	-	-	-	-	8500	3800
Mercury	mg/kg	-	0.14 U	0.057 U	-	-	-	-	-	0.15 U	0.11 U
Nickel	mg/kg	-	42	23	-	-	-	-	-	60	36
Potassium	mg/kg	-	1300	1600	-	-	-	-	-	1800	1300
Selenium	mg/kg	-	8.8	4.3	-	-	-	-	-	1.9	6.6
Silver	mg/kg	-	3.4	0.77	-	-	-	-	-	0.35	0.25
Sodium	mg/kg	-	1100	77 U	-	-	-	-	-	1200	960
Thallium	mg/kg	-	1.6	0.40	-	-	-	-	-	0.31 U	0.32
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	21	17	-	-	-	-	-	29	24
Zinc	mg/kg	-	31000	920	-	-	-	-	-	39000	24000

Table B.1													Page 21
Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan													
Sample Location:	SS-19	SS-20	SS-20	SS-21	SS-21	SS-21	SS-22	SS-22	SS-23	SS-23	SS-24		
Sample ID:	S-58502-050416-SSH-SS19CS-58502-050416-SSH-SS20AS-58502-050416-SSH-SS20BS-58502-050416-SSH-SS21AS-58502-050416-SSH-SS21BS-58502-050416-SSH-SS21CS-58502-050416-SSH-SS22AS-58502-050416-SSH-SS22BS-58502-050416-SSH-SS23AS-58502-050416-SSH-SS23BS-58502-050416-SSH-SS24A												
Sample Date:	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016		
Sample Depth:	(4.67-4.83) ft BGS	(0-1.75) ft BGS	(1.75-2.75) ft BGS	(0.1-1.75) ft BGS	(1-2.75) ft BGS	(2.5-3.25) ft BGS	(0-0.5) ft BGS	(0.5-4.83) ft BGS	(0-2.5) ft BGS	(2.5-3.5) ft BGS	(0-2.67) ft BGS		
matrix_code	CL	SE	SE	SE	SE	CL	SE	SE	SE	CL	SE		
Parameters	Units												
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	0.21 U	0.67 U	0.9 U	2.2 U	0.54 U	0.04 U	0.78 U	0.66 U	0.66 U	0.047 U	0.5 U	
Aroclor-1221 (PCB-1221)	mg/kg	0.21 U	0.67 U	0.9 U	2.2 U	0.54 U	0.04 U	0.78 U	0.66 U	0.66 U	0.047 U	0.5 U	
Aroclor-1232 (PCB-1232)	mg/kg	0.21 U	0.67 U	0.9 U	2.2 U	0.54 U	0.04 U	0.78 U	0.66 U	0.66 U	0.047 U	0.5 U	
Aroclor-1242 (PCB-1242)	mg/kg	0.59	0.67 U	4.4	2.2 U	0.54 U	0.04 U	0.78 U	0.66 U	0.66 U	0.067	0.5 U	
Aroclor-1248 (PCB-1248)	mg/kg	0.21 U	1.3	0.9 U	3.2	1.4	0.14	2.5	1.6	1.6	0.047 U	1	
Aroclor-1254 (PCB-1254)	mg/kg	0.21 U	0.67 U	0.9 U	2.2 U	0.54 U	0.04 U	0.78 U	0.66 U	0.66 U	0.047 U	0.5 U	
Aroclor-1260 (PCB-1260)	mg/kg	0.21 U	0.67 U	0.9 U	2.2 U	0.54 U	0.04 U	0.78 U	0.66 U	0.66 U	0.047 U	0.5 U	
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Wet													
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Ammonia-N	mg/kg	-	600	150	-	-	-	-	-	560	96	330	
Cyanide (total)	mg/kg	-	18 J	0.70 U	-	-	-	-	-	32 J	0.72 U	13 J	
Formaldehyde	mg/kg	-	140 J	6.7 J	-	-	-	-	-	120 J	6.7 J	130 J	
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	48000	18000	-	
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	
Notes:													
U	Not detected at the associated reporting limit.												
J	Estimated concentration.												
UJ	Not detected; associated reporting limit is estimated.												
R	Rejected.												

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-24	SS-25	SS-26	SS-27	SS-27	SS-27	SS-28	SS-28	SS-28	SS-28	SS-29	SS-29
Sample 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16-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-050516-SSH-SS29ES-58502-050516-SSH-SS29FS-58502-050516-SSH-SS29GS-58502-050516-SSH-SS29HS-58502-050516-SSH-SS29IS-58502-050516-SSH-SS29JS-58502-050516-SSH-SS29KS-58502-050516-SSH-SS29LS-58502-050516-SSH-SS29MS-58502-050516-SSH-SS29NS-58502-050516-SSH-SS29OS-58502-050516-SSH-SS29PS-58502-050516-SSH-SS29QS-58502-050516-SSH-SS29RS-58502-050516-SSH-SS29SS-58502-050516-SSH-SS29TS-58502-050516-SSH-SS29US-58502-050516-SSH-SS29VS-58502-050516-SSH-SS29WS-58502-050516-SSH-SS29XS-58502-050516-SSH-SS29YS-58502-050516-SSH-SS29ZS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS-58502-050516-SSH-SS29DS-58502-05											

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-24	SS-25	SS-26	SS-27	SS-27	SS-27	SS-28	SS-28	SS-28	SS-28	SS-29	SS-29
Sample ID:	S-58502-050416-SSH-SS24BS-58502-050516-SSH-SS25AS-58502-050516-SSH-SS26AS-58502-050516-SSH-SS27AS-58502-050516-SSH-SS27BS-58502-050516-SSH-SS27CS-58502-050516-SSH-SS28AS-58502-050516-SSH-SS28BS-58502-050516-SSH-SS28CS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29B											
Sample Date:	5/4/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016
Sample Depth:	(2.67-2.83) ft BGS	(0-2.17) ft BGS	(0-2.33) ft BGS	(1.17-3.08) ft BGS	(3.08-4.42) ft BGS	(4.42-4.92) ft BGS	(0.83-4.5) ft BGS	(0.83-4.5) ft BGS	(0.83-4.5) ft BGS	(4.5-4.67) ft BGS	(0-2.67) ft BGS	(2.67-2.83) ft BGS
matrix_code	CL	SE	SE	SE	SE	CL	SE	SE (Duplicate)		CL	SE	CL
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	5000	10000	19000	13000	18000	7900	15000	15000	7600	17000	-
Antimony	mg/kg	4.6 J	7.9	9.9	7.2	3.2	0.22	4.7	4.6	0.17 U	3.5	-
Arsenic	mg/kg	9.2	19	28	18	16	3.2	17	17	3.1	16	-
Barium	mg/kg	42	84	230	110	140	39	110	110	41	110	-
Beryllium	mg/kg	0.27	0.97	1.8	1.3	2.0	0.36	1.6	1.5	0.38	1.9	-
Cadmium	mg/kg	0.21	11	12	11	6.6	0.28	8.1	8.8	0.20	6.2	-
Calcium	mg/kg	30000 J	32000	120000	43000	38000	67000	30000	54000	69000	23000	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	8.7	94	180	120	140	18	120	140	17	130	-
Cobalt	mg/kg	3.6	6.1	9.4	6.9	6.5	5.5	6.4	7.1	6.3	6.3	-
Copper	mg/kg	5.9	150	230	160	120	17	140	160	14	120	-
Iron	mg/kg	7600	39000	69000	56000	68000	13000	55000	69000	13000	65000	-
Lead	mg/kg	5.5	930	1400	1100	710	31	850	1200	21	740	-
Magnesium	mg/kg	4900	5900	12000	8100	11000	22000	7800	8100	24000	8300	-
Manganese	mg/kg	140	2600	6700	4800	6500	410	4500	5200	380	4000	-
Mercury	mg/kg	0.054 U	0.10 U	0.18 U	0.13 U	0.17	0.051 U	0.12 U	0.14 U	0.050 U	0.12	-
Nickel	mg/kg	8.8	34	55	41	44	16	41	46	18	43	-
Potassium	mg/kg	820	1200	1900	1400	1700	1700	1200	1600	1300	1300	-
Selenium	mg/kg	3.7	8.7	11	7.0	7.6	2.5	8.1	6.9	2.5	7.8	-
Silver	mg/kg	1.2	2.6	3.2	3.0	2.3	0.11	3.0	2.6	0.083 U	3.2	-
Sodium	mg/kg	95 U	870	1300	860	740	160	870	810	180	740	-
Thallium	mg/kg	0.92	2.4	2.7	1.5	0.66	0.19	1.2	0.81	0.14	0.54	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	12	22	35	22	20	19	21	20	19	18	-
Zinc	mg/kg	92	19000	38000	26000	20000	110	27000	31000	160	32000	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-24	SS-25	SS-26	SS-27	SS-27	SS-27	SS-28	SS-28	SS-28	SS-28	SS-29	SS-29
Sample ID:	S-58502-050416-SSH-SS24BS-58502-050516-SSH-SS25AS-58502-050516-SSH-SS26AS-58502-050516-SSH-SS27AS-58502-050516-SSH-SS27BS-58502-050516-SSH-SS27CS-58502-050516-SSH-SS28AS-58502-050516-SSH-SS28BS-58502-050516-SSH-SS28CS-58502-050516-SSH-SS29AS-58502-050516-SSH-SS29BS-58502-050516-SSH-SS29CS											
Sample Date:	5/4/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016
Sample Depth:	(2.67-2.83) ft BGS	(0-2.17) ft BGS	(0-2.33) ft BGS	(1.17-3.08) ft BGS	(3.08-4.42) ft BGS	(4.42-4.92) ft BGS	(0.83-4.5) ft BGS	(0.83-4.5) ft BGS	(4.5-4.67) ft BGS	(0-2.67) ft BGS	(2.67-2.83) ft BGS	
matrix_code	CL	SE	SE	SE	SE	CL	SE	SE (Duplicate)	CL	SE	CL	CL
Parameters	Units											
MetalsSEM												
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.096 U	0.14 U	0.11 U	0.9 U	0.039 U	0.1 U	0.1 U	0.041 U	0.092 U	0.039 U
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.096 U	0.14 U	0.11 U	0.9 U	0.039 U	0.1 U	0.1 U	0.041 U	0.092 U	0.039 U
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.096 U	0.14 U	0.11 U	0.9 U	0.039 U	0.1 U	0.1 U	0.041 U	0.092 U	0.039 U
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.37	0.54	0.11 U	3.7	0.075	0.38	0.38	0.13	0.19	0.039 U
Aroclor-1248 (PCB-1248)	mg/kg	0.041 U	0.096 U	0.14 U	1.6	0.9 U	0.039 U	0.1 U	0.1 U	0.041 U	0.092 U	0.039 U
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.11	0.14 U	0.11 U	0.9 U	0.039 U	0.18	0.21	0.041 U	0.12	0.039 U
Aroclor-1260 (PCB-1260)	mg/kg	0.041 U	0.096 U	0.14 U	0.11 U	0.9 U	0.039 U	0.1 U	0.1 U	0.041 U	0.092 U	0.039 U
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Wet												
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	82	700	1000	860	660	190	640	700	200	370	-
Cyanide (total)	mg/kg	0.58 U	42 J	55 J	26 J	4.5 J	1.2 U	30 J	3.2 UJ	0.63 U	16 J	-
Formaldehyde	mg/kg	2.5 U	53 J	78 J	66 J	70 J	3.1 J	84 J	42 J	3.3 J	72 J	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	38000	-	41000	34000	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-30	SS-31	SS-31	SS-32	SS-32	SS-32	SS-32	SS-33	SS-33	SS-34	SS-34
Sample ID:	S-58502-050516-SSH-SS30AS-58502-050516-SSH-SS31AS-58502-050516-SSH-SS31BS-58502-050516-SSH-SS32AS-58502-050516-SSH-SS32BS-58502-050516-SSH-SS32CS-58502-050516-SSH-SS32DS-58502-050516-SSH-SS33AS-58502-050516-SSH-SS33BS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34B										
Sample Date:	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/6/2016	5/6/2016
Sample Depth:	(0-2) ft BGS	(0-3.33) ft BGS	(3.33-3.5) ft BGS	(0-1.33) ft BGS	(1.33-3.33) ft BGS	(1.33-3.33) ft BGS	(1.33-3.33) ft BGS	(3.33-3.5) ft BGS	(0-0.83) ft BGS	(0.83-3) ft BGS	(1-3.33) ft BGS
matrix_code	SE	SE	CL	SE	SE	SE	SE (Duplicate)	CL	SE	SE	CL
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-30	SS-31	SS-31	SS-32	SS-32	SS-32	SS-32	SS-33	SS-33	SS-34	SS-34
Sample ID:	S-58502-050516-SSH-SS30AS-58502-050516-SSH-SS31AS-58502-050516-SSH-SS31BS-58502-050516-SSH-SS32AS-58502-050516-SSH-SS32BS-58502-050516-SSH-SS32CS-58502-050516-SSH-SS32DS-58502-050516-SSH-SS33AS-58502-050516-SSH-SS33BS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34B										
Sample Date:	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/5/2016	5/6/2016	5/6/2016
Sample Depth:	(0-2) ft BGS	(0-3.33) ft BGS	(3.33-3.5) ft BGS	(0-1.33) ft BGS	(1.33-3.33) ft BGS	(1.33-3.33) ft BGS	(3.33-3.5) ft BGS	(0-0.83) ft BGS	(0.83-3) ft BGS	(1-3.33) ft BGS	(3.33-3.5) ft BGS
matrix_code	SE	SE	CL	SE	SE	SE	SE (Duplicate)	CL	SE	SE	CL
Parameters	Units										
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Metals											
Aluminum	mg/kg	12000	-	-	-	-	-	-	-	17000	-
Antimony	mg/kg	10	-	-	-	-	-	-	-	5.6	-
Arsenic	mg/kg	18	-	-	-	-	-	-	-	20	-
Barium	mg/kg	130	-	-	-	-	-	-	-	130	-
Beryllium	mg/kg	1.2	-	-	-	-	-	-	-	1.8	-
Cadmium	mg/kg	12	-	-	-	-	-	-	-	9.8	-
Calcium	mg/kg	46000	-	-	-	-	-	-	-	43000	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	85	-	-	-	-	-	-	-	150	-
Cobalt	mg/kg	6.5	-	-	-	-	-	-	-	7.8	-
Copper	mg/kg	160	-	-	-	-	-	-	-	160	-
Iron	mg/kg	29000	-	-	-	-	-	-	-	74000	-
Lead	mg/kg	840	-	-	-	-	-	-	-	1200	-
Magnesium	mg/kg	7600	-	-	-	-	-	-	-	10000	-
Manganese	mg/kg	3400	-	-	-	-	-	-	-	5800	-
Mercury	mg/kg	0.15 U	-	-	-	-	-	-	-	0.14	-
Nickel	mg/kg	31	-	-	-	-	-	-	-	50	-
Potassium	mg/kg	1500	-	-	-	-	-	-	-	1500	-
Selenium	mg/kg	8.4	-	-	-	-	-	-	-	7.9	-
Silver	mg/kg	2.8	-	-	-	-	-	-	-	3.0	-
Sodium	mg/kg	1100	-	-	-	-	-	-	-	960	-
Thallium	mg/kg	2.8	-	-	-	-	-	-	-	1.2	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	28	-	-	-	-	-	-	-	23	-
Zinc	mg/kg	12000	-	-	-	-	-	-	-	33000	-

Table B.1														Page 27
Secondary Pond Sediment Sample Results														
RACER Saginaw Nodular Industrial Land														
Saginaw, Michigan														
Sample Location:		SS-30	SS-31	SS-31	SS-32	SS-32	SS-32	SS-32	SS-33	SS-33	SS-34	SS-34		
Sample ID:		S-58502-050516-SSH-SS30AS-58502-050516-SSH-SS31AS-58502-050516-SSH-SS31BS-58502-050516-SSH-SS32AS-58502-050516-SSH-SS32BS-58502-050516-SSH-SS32CS-58502-050516-SSH-SS32DS-58502-050516-SSH-SS33AS-58502-050516-SSH-SS33BS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34ZS-58502-050616-SSH-SS34AS-58502-050616-SSH-SS34BS-58502-050616-SSH-SS34CS-58502-050616-SSH-SS34DS-58502-050616-SSH-SS34ES-58502-050616-SSH-SS34FS-58502-050616-SSH-SS34GS-58502-050616-SSH-SS34HS-58502-050616-SSH-SS34IS-58502-050616-SSH-SS34JS-58502-050616-SSH-SS34KS-58502-050616-SSH-SS34LS-58502-050616-SSH-SS34MS-58502-050616-SSH-SS34NS-58502-050616-SSH-SS34OS-58502-050616-SSH-SS34PS-58502-050616-SSH-SS34QS-58502-050616-SSH-SS34RS-58502-050616-SSH-SS34SS-58502-050616-SSH-SS34TS-58502-050616-SSH-SS34US-58502-050616-SSH-SS34VS-58502-050616-SSH-SS34WS-58502-050616-SSH-SS34XS-58502-050616-SSH-SS34YS-58502-050616-SSH-SS34Z												

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-35	SS-35	SS-36	SS-36	SS-37	SS-37	SS-37	SS-38	SS-38	SS-38	SS-39
Sample ID:	S-58502-050616-SSH-SS35AS-58502-050616-SSH-SS35BS-58502-050616-SSH-SS36AS-58502-050616-SSH-SS36BS-58502-050616-SSH-SS37AS-58502-050616-SSH-SS37BS-58502-050616-SSH-SS37CS-58502-050616-SSH-SS38AS-58502-050616-SSH-SS38BS-58502-050616-SSH-SS38CS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS39DS-58502-050616-SSH-SS39ES-58502-050616-SSH-SS39FS-58502-050616-SSH-SS39GS-58502-050616-SSH-SS39HS-58502-050616-SSH-SS39IS-58502-050616-SSH-SS39JS-58502-050616-SSH-SS39KS-58502-050616-SSH-SS39LS-58502-050616-SSH-SS39MS-58502-050616-SSH-SS39NS-58502-050616-SSH-SS39OS-58502-050616-SSH-SS39PS-58502-050616-SSH-SS39QS-58502-050616-SSH-SS39RS-58502-050616-SSH-SS39SS-58502-050616-SSH-SS39TS-58502-050616-SSH-SS39US-58502-050616-SSH-SS39VS-58502-050616-SSH-SS39WS-58502-050616-SSH-SS39XS-58502-050616-SSH-SS39YS-58502-050616-SSH-SS39ZS-58502-050616-SSH-SS39AS-58502-050616-SSH-SS39BS-58502-050616-SSH-SS39CS-58502-050616-SSH-SS3										

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-35	SS-35	SS-36	SS-36	SS-37	SS-37	SS-37	SS-38	SS-38	SS-38	SS-39
Sample ID:	S-58502-050616-SSH-SS35AS-58502-050616-SSH-SS35BS-58502-050616-SSH-SS36AS-58502-050616-SSH-SS36BS-58502-050616-SSH-SS37AS-58502-050616-SSH-SS37BS-58502-050616-SSH-SS37CS-58502-050616-SSH-SS38AS-58502-050616-SSH-SS38BS-58502-050616-SSH-SS38CS-58502-050616-SSH-SS39										
Sample Date:	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016
Sample Depth:	(1.17-3.5) ft BGS	(3.5-3.67) ft BGS	(0.25-4.33) ft BGS	(4.33-4.5) ft BGS	(0.67-2) ft BGS	(2-3.75) ft BGS	(3.75-3.92) ft BGS	(0.83-4.67) ft BGS	(0.83-4.67) ft BGS	(4.67-4.83) ft BGS	(0.25-2.75) ft BGS
matrix_code	SE	CL	SE	CL	SE	SE	CL	SE	SE (Duplicate)	CL	SE
Parameters	Units										
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Metals											
Aluminum	mg/kg	19000	-	20000	-	-	13000	-	21000	18000	19000
Antimony	mg/kg	3.7	-	3.6 J	-	-	3.4 J	-	3.6 J	4.3 J	4.6 J
Arsenic	mg/kg	19	-	19	-	-	13	-	17	19	16
Barium	mg/kg	130	-	130	-	-	110	-	130	150	130
Beryllium	mg/kg	2.1	-	1.9	-	-	1.2	-	1.9	1.8	1.5
Cadmium	mg/kg	7.1	-	8.6	-	-	4.9	-	12	8.1	8.3
Calcium	mg/kg	30000	-	31000 J	-	-	47000 J	-	31000 J	56000 J	41000 J
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	150	-	170	-	-	120	-	160	180	160
Cobalt	mg/kg	7.3	-	7.8	-	-	6.2	-	7.2	8.8	7.9
Copper	mg/kg	120	-	140	-	-	120	-	130	170	150
Iron	mg/kg	74000	-	84000	-	-	61000	-	77000	86000	76000
Lead	mg/kg	740	-	780	-	-	800	-	730	1300	980
Magnesium	mg/kg	10000	-	11000	-	-	9000	-	11000	9900	10000
Manganese	mg/kg	5500	-	6000	-	-	4500	-	7000	6000	5400
Mercury	mg/kg	0.11 U	-	0.16	-	-	0.081 U	-	0.14 U	0.11 U	0.098 U
Nickel	mg/kg	50	-	55	-	-	43	-	53	60	55
Potassium	mg/kg	1600	-	1700	-	-	1200	-	2000	1600	1500
Selenium	mg/kg	8.3	-	8.5	-	-	5.2	-	7.5	7.7	7.1
Silver	mg/kg	3.6	-	3.3	-	-	1.8	-	2.6	2.7	2.6
Sodium	mg/kg	770	-	850	-	-	760	-	970	880	1000
Thallium	mg/kg	0.59	-	0.70	-	-	0.57	-	0.89	0.66	1.0
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	21	-	21	-	-	15	-	20	21	22
Zinc	mg/kg	36000	-	26000	-	-	21000	-	25000	37000	27000

Table B.1													Page 30
Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan													
Sample Location:	SS-35	SS-35	SS-36	SS-36	SS-37	SS-37	SS-37	SS-38	SS-38	SS-38	SS-39		
Sample ID:	S-58502-050616-SSH-SS35AS-58502-050616-SSH-SS35BS-58502-050616-SSH-SS36AS-58502-050616-SSH-SS36BS-58502-050616-SSH-SS37AS-58502-050616-SSH-SS37BS-58502-050616-SSH-SS37CS-58502-050616-SSH-SS38AS-58502-050616-SSH-SS38BS-58502-050616-SSH-SS38CS-58502-050616-SSH-SS39												
Sample Date:	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016	5/6/2016		
Sample Depth:	(1.17-3.5) ft BGS	(3.5-3.67) ft BGS	(0.25-4.33) ft BGS	(4.33-4.5) ft BGS	(0.67-2) ft BGS	(2-3.75) ft BGS	(3.75-3.92) ft BGS	(0.83-4.67) ft BGS	(0.83-4.67) ft BGS	(4.67-4.83) ft BGS	(0.25-2.75) ft BGS		
matrix_code	SE	CL	SE	CL	SE	SE	CL	SE	(Duplicate)	CL	SE		
Parameters	Units												
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	0.095 U	0.046 U	0.092 U	0.045 U	1.2 U	0.075 U	0.04 U	1 U	0.1 U	0.039 U	0.91 U	
Aroclor-1221 (PCB-1221)	mg/kg	0.095 U	0.046 U	0.092 U	0.045 U	1.2 U	0.075 U	0.04 U	1 U	0.1 U	0.039 U	0.91 U	
Aroclor-1232 (PCB-1232)	mg/kg	0.095 U	0.046 U	0.092 U	0.045 U	1.2 U	0.075 U	0.04 U	1 U	0.1 U	0.039 U	0.91 U	
Aroclor-1242 (PCB-1242)	mg/kg	0.32	0.07	0.32	0.049	1.2 U	0.22	0.04 U	1 U	0.32	0.039 U	0.91 U	
Aroclor-1248 (PCB-1248)	mg/kg	0.095 U	0.046 U	0.092 U	0.045 U	1.2 U	0.075 U	0.04 U	1 U	0.1 U	0.039 U	0.91 U	
Aroclor-1254 (PCB-1254)	mg/kg	0.14	0.046 U	0.17	0.045 U	1.2 U	0.075 U	0.04 U	1 U	0.1 U	0.039 U	0.91 U	
Aroclor-1260 (PCB-1260)	mg/kg	0.095 U	0.046 U	0.092 U	0.045 U	1.2 U	0.075 U	0.04 U	1 U	0.1 U	0.039 U	0.91 U	
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Wet													
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Ammonia-N	mg/kg	540	-	460	-	-	390	-	260	420	-	510	
Cyanide (total)	mg/kg	28 J	-	5.4 J	-	-	9.4 J	-	4.9 J	2.9 U	-	17 J	
Formaldehyde	mg/kg	51 J	-	44 J	-	-	46 J	-	90 J	73 J	-	41 J	
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	mg/kg	-	-	36000	-	-	26000	-	-	-	-	-	
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	
Notes:													
U	Not detected at the associated reporting limit.												
J	Estimated concentration.												
UJ	Not detected; associated reporting limit is estimated.												
R	Rejected.												

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-40	SS-41	SS-42	SS-43	SS-44	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50	SS-51
Sample ID:	S-58502-081516-SSH-SE8	S-58502-081516-SSH-SE9	S-58502-081516-SSH-SE10	S-58502-081516-SSH-SE11	S-58502-081616-SSH-SE13	S-58502-081616-SSH-SE14	S-58502-081616-SSH-SE15	S-58502-081616-SSH-SE17	S-58502-081616-SSH-SE18	S-58502-081616-SSH-SE19	S-58502-081516-SSH-SE20	S-58502-081616-SSH-SE21
Sample Date:	8/15/2016	8/15/2016	8/15/2016	8/15/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/15/2016	8/16/2016
Sample Depth:	-	-	-	-	-	-	-	-	-	-	-	-
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
VOAs												
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
SVOAs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-40	SS-41	SS-42	SS-43	SS-44	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50	SS-51
Sample ID:	S-58502-081516-SSH-SE8	S-58502-081516-SSH-SE9	S-58502-081516-SSH-SE10	S-58502-081516-SSH-SE11	S-58502-081616-SSH-SE13	S-58502-081616-SSH-SE14	S-58502-081616-SSH-SE15	S-58502-081616-SSH-SE17	S-58502-081616-SSH-SE18	S-58502-081616-SSH-SE19	S-58502-081516-SSH-SE20	S-58502-081616-SSH-SE21
Sample Date:	8/15/2016	8/15/2016	8/15/2016	8/15/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/15/2016	8/16/2016
Sample Depth:	-	-	-	-	-	-	-	-	-	-	-	-
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1														Page 33 of 54
Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan														
Sample Location:		SS-40	SS-41	SS-42	SS-43	SS-44	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50	SS-51	
Sample ID:		S-58502-081516-SSH-SE8	S-58502-081516-SSH-SE9	S-58502-081516-SSH-SE10	S-58502-081516-SSH-SE11	S-58502-081616-SSH-SE13	S-58502-081616-SSH-SE14	S-58502-081616-SSH-SE15	S-58502-081616-SSH-SE17	S-58502-081616-SSH-SE18	S-58502-081616-SSH-SE19	S-58502-081516-SSH-SE20	S-58502-081616-SSH-SE21	
Sample Date:		8/15/2016	8/15/2016	8/15/2016	8/15/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/16/2016	8/15/2016	8/16/2016	
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	
matrix_code		SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units													
MetalsSEM														
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
PCBs														
Aroclor-1016 (PCB-1016)	mg/kg	0.3 U	0.2 U	0.17 U	0.21 U	0.15 U	0.19 U	0.12 U	0.16 U	0.81 U	0.2 U	7.3 U	0.21 U	
Aroclor-1221 (PCB-1221)	mg/kg	0.3 U	0.2 U	0.17 U	0.21 U	0.15 U	0.19 U	0.12 U	0.16 U	0.81 U	0.2 U	7.3 U	0.21 U	
Aroclor-1232 (PCB-1232)	mg/kg	0.3 U	0.2 U	0.17 U	0.21 U	0.15 U	0.19 U	0.12 U	0.16 U	0.81 U	0.2 U	7.3 U	0.21 U	
Aroclor-1242 (PCB-1242)	mg/kg	0.3 U	0.2 U	0.17 U	0.21 U	0.15 U	0.19 U	0.12 U	0.16 U	0.81 U	0.2 U	63	0.21 U	
Aroclor-1248 (PCB-1248)	mg/kg	3.6	1.9	1.3	1.9	1.7 P	1.6 P	1.3	4.2 P	3.4	1.1	7.3 U	1.3	
Aroclor-1254 (PCB-1254)	mg/kg	0.3 U	0.2 U	0.17 U	0.21 U	0.15 U	0.19 U	0.12 U	0.16 U	0.81 U	0.2 U	9.1	0.21 U	
Aroclor-1260 (PCB-1260)	mg/kg	0.3 U	0.2 U	0.17 U	0.21 U	0.15 U	0.19 U	0.12 U	0.16 U	0.81 U	0.2 U	7.3 U	0.21 U	
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Wet														
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	
Notes:														
U	Not detected at the associated reporting limit.													
J	Estimated concentration.													
UJ	Not detected; associated reporting limit is estimated.													
R	Rejected.													

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-52	SS-53	SS-54	SS-55	SS-56	SS-57	SS-58	SS-59	SS-60	SS-61	SS-62
Sample ID:	S-58502-081616-SSH-SE22	S-58502-081516-SSH-SE23	S-58502-081516-SSH-SE24	S-58502-081616-SSH-SE25	S-58502-081516-SSH-SE26	S-58502-081616-SSH-SE27	S-58502-081516-SSH-SE28	S-58502-081516-SSH-SE29	S-58502-081516-SSH-SE30	S-58502-081516-SSH-SE31	S-58502-081516-SSH-SE32
Sample Date:	8/16/2016	8/15/2016	8/15/2016	8/16/2016	8/15/2016	8/16/2016	8/15/2016	8/15/2016	8/15/2016	8/15/2016	8/15/2016
Sample Depth:	-	-	-	-	-	-	-	-	-	-	-
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-52	SS-53	SS-54	SS-55	SS-56	SS-57	SS-58	SS-59	SS-60	SS-61	SS-62
Sample ID:	S-58502-081616-SSH-SE22	S-58502-081516-SSH-SE23	S-58502-081516-SSH-SE24	S-58502-081616-SSH-SE25	S-58502-081516-SSH-SE26	S-58502-081616-SSH-SE27	S-58502-081516-SSH-SE28	S-58502-081516-SSH-SE29	S-58502-081516-SSH-SE30	S-58502-081516-SSH-SE31	S-58502-081516-SSH-SE32
Sample Date:	8/16/2016	8/15/2016	8/15/2016	8/16/2016	8/15/2016	8/16/2016	8/15/2016	8/15/2016	8/15/2016	8/15/2016	8/15/2016
Sample Depth:	-	-	-	-	-	-	-	-	-	-	-
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units										
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Metals											
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-52	SS-53	SS-54	SS-55	SS-56	SS-57	SS-58	SS-59	SS-60	SS-61	SS-62
Sample ID:		S-58502-081616-SSH-SE22	S-58502-081516-SSH-SE23	S-58502-081516-SSH-SE24	S-58502-081616-SSH-SE25	S-58502-081516-SSH-SE26	S-58502-081616-SSH-SE27	S-58502-081516-SSH-SE28	S-58502-081516-SSH-SE29	S-58502-081516-SSH-SE30	S-58502-081516-SSH-SE31	S-58502-081516-SSH-SE32
Sample Date:		8/16/2016	8/15/2016	8/15/2016	8/16/2016	8/15/2016	8/16/2016	8/15/2016	8/15/2016	8/15/2016	8/15/2016	8/15/2016
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-
matrix_code		SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
MetalsSEM												
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	0.19 U	0.5 U	0.77 U	0.27 U	0.23 U	0.25 U	0.17 U	0.85 U	0.16 U	0.17 U	2.6 U
Aroclor-1221 (PCB-1221)	mg/kg	0.19 U	0.5 U	0.77 U	0.27 U	0.23 U	0.25 U	0.17 U	0.85 U	0.16 U	0.17 U	2.6 U
Aroclor-1232 (PCB-1232)	mg/kg	0.19 U	0.5 U	0.77 U	0.27 U	0.23 U	0.25 U	0.17 U	0.85 U	0.16 U	0.17 U	2.6 U
Aroclor-1242 (PCB-1242)	mg/kg	0.19 U	1.6	3.3	0.27 U	0.23 U	0.25 U	0.17 U	2.7	0.88	1.6	31
Aroclor-1248 (PCB-1248)	mg/kg	1.4 P	0.5 U	0.77 U	1.5 P	2.4 P	0.95	1.7 P	0.85 U	0.16 U	0.17 U	2.6 U
Aroclor-1254 (PCB-1254)	mg/kg	0.19 U	0.5 U	0.87	0.27 U	0.23 U	0.25 U	0.17 U	0.58 J	0.41	0.51 p	4
Aroclor-1260 (PCB-1260)	mg/kg	0.19 U	0.5 U	0.77 U	0.27 U	0.23 U	0.25 U	0.17 U	0.85 U	0.16 U	0.17 U	2.6 U
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Wet												
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan													
Sample Location:	SS-63	SS-64	SS-65	SS-66	SS-67	SS-68	SS-69	SS-70	SS-71	SS-72	SS-72	SS-73	
Sample ID:	S-58502-081516-SSH-SE33	S-58502-081616-SSH-SE34	S-58502-081616-SSH-SE35	S-58502-081616-SSH-SE36	S-58502-081516-SSH-SE37	S-58502-090817-SSH-68	S-58502-090817-SSH-69	S-58502-090817-SSH-70	S-58502-090817-SSH-71	S-58502-090817-SSH-72-1	S-58502-090817-SSH-72-2	S-58502-090817-SSH-73	
Sample Date:	8/15/2016	8/16/2016	8/16/2016	8/16/2016	8/15/2016	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	
Sample Depth:	-	-	-	-	-	(0-1.5) ft BGS	(0-1.25) ft BGS	(0-1.75) ft BGS	(0-1) ft BGS	(0.5-1.5) ft BGS	(1.5-2.25) ft BGS	(0-1) ft BGS	
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units												
VOAs													
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
SVOAs													
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-63	SS-64	SS-65	SS-66	SS-67	SS-68	SS-69	SS-70	SS-71	SS-72	SS-72	SS-73
Sample ID:	S-58502-081516-SSH-SE33	S-58502-081616-SSH-SE34	S-58502-081616-SSH-SE35	S-58502-081616-SSH-SE36	S-58502-081516-SSH-SE37	S-58502-090817-SSH-68	S-58502-090817-SSH-69	S-58502-090817-SSH-70	S-58502-090817-SSH-71	S-58502-090817-SSH-72-1	S-58502-090817-SSH-72-2	S-58502-090817-SSH-73
Sample Date:	8/15/2016	8/16/2016	8/16/2016	8/16/2016	8/15/2016	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:	-	-	-	-	-	(0-1.5) ft BGS	(0-1.25) ft BGS	(0-1.75) ft BGS	(0-1) ft BGS	(0.5-1.5) ft BGS	(1.5-2.25) ft BGS	(0-1) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results RACER Saginaw Nodular Industrial Land Saginaw, Michigan													
Sample Location:	SS-63	SS-64	SS-65	SS-66	SS-67	SS-68	SS-69	SS-70	SS-71	SS-72	SS-72	SS-73	
Sample ID:	S-58502-081516-SSH-SE33	S-58502-081616-SSH-SE34	S-58502-081616-SSH-SE35	S-58502-081616-SSH-SE36	S-58502-081516-SSH-SE37	S-58502-090817-SSH-68	S-58502-090817-SSH-69	S-58502-090817-SSH-70	S-58502-090817-SSH-71	S-58502-090817-SSH-72-1	S-58502-090817-SSH-72-2	S-58502-090817-SSH-73	
Sample Date:	8/15/2016	8/16/2016	8/16/2016	8/16/2016	8/15/2016	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	
Sample Depth:	-	-	-	-	-	(0-1.5) ft BGS	(0-1.25) ft BGS	(0-1.75) ft BGS	(0-1) ft BGS	(0.5-1.5) ft BGS	(1.5-2.25) ft BGS	(0-1) ft BGS	
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units												
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	0.18 U	0.41 U	0.36 U	0.21 U	0.077 U	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1221 (PCB-1221)	mg/kg	0.18 U	0.41 U	0.36 U	0.21 U	0.077 U	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1232 (PCB-1232)	mg/kg	0.18 U	0.41 U	0.36 U	0.21 U	0.077 U	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1242 (PCB-1242)	mg/kg	0.68	0.41 U	0.36 U	0.21 U	0.64	0.98	4.1	0.99	1.4	1.8	24	19
Aroclor-1248 (PCB-1248)	mg/kg	0.18 U	5.3	5 P	2.2	0.077 U	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1254 (PCB-1254)	mg/kg	0.26	0.41 U	0.36 U	0.21 U	0.092 p	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1260 (PCB-1260)	mg/kg	0.18 U	0.41 U	0.36 U	0.21 U	0.077 U	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1262 (PCB-1262)	mg/kg	-	-	-	-	-	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Aroclor-1268 (PCB-1268)	mg/kg	-	-	-	-	-	0.76 U	3.2 U	0.88 U	0.74 U	0.71 U	9.3 U	6.3 U
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Wet													
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-
Notes:													
U	Not detected at the associated reporting limit.												
J	Estimated concentration.												
UJ	Not detected; associated reporting limit is estimated.												
R	Rejected.												

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-74	SS-75	SS-76	SS-77	SS-78	SS-78	SS-79	SS-79	SS-80	SS-81	SS-81	SS-81
Sample ID:	S-58502-090817-SSH-74	S-58502-090817-SSH-75	S-58502-090817-SSH-76	S-58502-090817-SSH-77	S-58502-090817-SSH-78-1	S-58502-090817-SSH-78-2	S-58502-090817-SSH-79-1	S-58502-090817-SSH-79-2	S-58502-090817-SSH-80	S-58502-090817-SSH-81-1	S-58502-090817-SSH-81-1A	S-58502-090817-SSH-81-2
Sample Date:	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:	(0-5) ft BGS	(0-2) ft BGS	(0-2.25) ft BGS	(0-2.25) ft BGS	(0-1.5) ft BGS	(1.5-2) ft BGS	(2-3) ft BGS	(2-3) ft BGS	(4.5-5.5) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(0-2) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
VOAs												
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
SVOAs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-74	SS-75	SS-76	SS-77	SS-78	SS-78	SS-79	SS-79	SS-80	SS-81	SS-81	SS-81
Sample ID:	S-58502-090817-SSH-74	S-58502-090817-SSH-75	S-58502-090817-SSH-76	S-58502-090817-SSH-77	S-58502-090817-SSH-78-1	S-58502-090817-SSH-78-2	S-58502-090817-SSH-79-1	S-58502-090817-SSH-79-2	S-58502-090817-SSH-80	S-58502-090817-SSH-81-1	S-58502-090817-SSH-81-1A	S-58502-090817-SSH-81-2
Sample Date:	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:	(0-5) ft BGS	(0-2) ft BGS	(0-2.25) ft BGS	(0-2.25) ft BGS	(0-1.5) ft BGS	(1.5-2) ft BGS	(2-3) ft BGS	(4.5-5.5) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(2-2.5) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE (Duplicate)	SE
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1														Page 42
Secondary Pond Sediment Sample Results														
RACER Saginaw Nodular Industrial Land														
Saginaw, Michigan														
Sample Location:	SS-74	SS-75	SS-76	SS-77	SS-78	SS-78	SS-79	SS-79	SS-80	SS-81	SS-81	SS-81	SS-81	
Sample ID:	S-58502-090817-SSH-74	S-58502-090817-SSH-75	S-58502-090817-SSH-76	S-58502-090817-SSH-77	S-58502-090817-SSH-78-1	S-58502-090817-SSH-78-2	S-58502-090817-SSH-79-1	S-58502-090817-SSH-79-2	S-58502-090817-SSH-80	S-58502-090817-SSH-81-1	S-58502-090817-SSH-81-1A	S-58502-090817-SSH-81-1A	S-58502-090817-SSH-81-2	
Sample Date:	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	
Sample Depth:	(0-5) ft BGS	(0-2) ft BGS	(0-2.25) ft BGS	(0-2.25) ft BGS	(0-1.5) ft BGS	(1.5-2) ft BGS	(2-3) ft BGS	(4.5-5.5) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(0-2) ft BGS	(2-2.5) ft BGS	
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	(Duplicate)	SE	
Parameters	Units													
MetalsSEM														
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	-	
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
PCBs														
Aroclor-1016 (PCB-1016)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 UF1	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1221 (PCB-1221)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1232 (PCB-1232)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1242 (PCB-1242)	mg/kg	2.1	6.5	1.1	18	3.4	1.4	0.82 U	1.5	1.8 p	4	3.7	13	
Aroclor-1248 (PCB-1248)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1254 (PCB-1254)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1260 (PCB-1260)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1262 (PCB-1262)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Aroclor-1268 (PCB-1268)	mg/kg	0.77 U	6.4 U	0.73 U	9.1 U	1.3 U	0.66 U	0.82 U	0.83 U	0.99 U	2.3 U	2.2 U	4.1 U	
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Wet														
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	-	
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-	
Notes:														
U	Not detected at the associated reporting limit.													
J	Estimated concentration.													
UJ	Not detected; associated reporting limit is estimated.													
R	Rejected.													

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-82	SS-82	SS-83	SS-83	SS-84	SS-84	SS-85	SS-85	SS-86	SS-87	SS-88	SS-89
Sample ID:	S-58502-090817-SSH-82-1	S-58502-090817-SSH-82-2	S-58502-090817-SSH-83-1	S-58502-090817-SSH-83-2	S-58502-090817-SSH-84-1	S-58502-090817-SSH-84-2	S-58502-090817-SSH-85-1	S-58502-090817-SSH-85-2	S-58502-090817-SSH-86	S-58502-090817-SSH-87	S-58502-090817-SSH-88	S-58502-090817-SSH-89
Sample Date:	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:	(0-2.5) ft BGS	(2.5-3) ft BGS	(0-2.5) ft BGS	(2.5-3) ft BGS	(0-2) ft BGS	(2-2.5) ft BGS	(0-2.5) ft BGS	(2.5-3) ft BGS	(0-1.5) ft BGS	(0-3.5) ft BGS	(0-1.25) ft BGS	(0-2.5) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
VOAs												
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
SVOAs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-82		SS-82		SS-83		SS-83		SS-84		SS-84		SS-85		SS-85		SS-86		SS-87		SS-88		SS-89	
Sample ID:		S-58502-090817-SSH-82-1		S-58502-090817-SSH-82-2		S-58502-090817-SSH-83-1		S-58502-090817-SSH-83-2		S-58502-090817-SSH-84-1		S-58502-090817-SSH-84-2		S-58502-090817-SSH-85-1		S-58502-090817-SSH-85-2		S-58502-090817-SSH-86		S-58502-090817-SSH-87		S-58502-090817-SSH-88		S-58502-090817-SSH-89	
Sample Date:		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017		9/8/2017	
Sample Depth:		(0-2.5) ft BGS		(2.5-3) ft BGS		(0-2.5) ft BGS		(2.5-3) ft BGS		(0-2) ft BGS		(2-2.5) ft BGS		(0-2.5) ft BGS		(2.5-3) ft BGS		(0-1.5) ft BGS		(0-3.5) ft BGS		(0-1.25) ft BGS		(0-2.5) ft BGS	
matrix_code		SE		SE		SE		SE		SE		SE		SE		SE		SE		SE		SE		SE	
Parameters		Units																							
4-Nitroaniline		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4-Nitrophenol		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acenaphthene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acenaphthylene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acetophenone		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Anthracene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Atrazine		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzaldehyde		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(a)anthracene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(a)pyrene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(b)fluoranthene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(g,h,i)perylene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzo(k)fluoranthene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Biphenyl (1,1-Biphenyl)		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
bis(2-Chloroethoxy)methane		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
bis(2-Chloroethyl)ether		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
bis(2-Ethylhexyl)phthalate (DEHP)		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Butyl benzylphthalate (BBP)		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Caprolactam		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Carbazole		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chrysene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dibenz(a,h)anthracene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dibenzofuran		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Diethyl phthalate		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dimethyl phthalate		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Di-n-butylphthalate (DBP)		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Di-n-octyl phthalate (DnOP)		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fluoranthene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fluorene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexachlorobenzene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexachlorobutadiene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexachlorocyclopentadiene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hexachloroethane		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Indeno(1,2,3-cd)pyrene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Isophorone		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Naphthalene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nitrobenzene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N-Nitrosodi-n-propylamine		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N-Nitrosodiphenylamine		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pentachlorophenol		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenanthrene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phenol		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pyrene		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Metals																									
Aluminum		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Antimony		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arsenic		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Barium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Beryllium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cadmium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Calcium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cation exchange capacity		meq/100g		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chromium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cobalt		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Copper		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Iron		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lead		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Manganese		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mercury		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nickel		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Potassium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Selenium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Silver		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sodium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Thallium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tin		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vanadium		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Zinc		mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-82	SS-82	SS-83	SS-83	SS-84	SS-84	SS-85	SS-85	SS-86	SS-87	SS-88	SS-89
Sample ID:		S-58502-090817-SSH-82-1	S-58502-090817-SSH-82-2	S-58502-090817-SSH-83-1	S-58502-090817-SSH-83-2	S-58502-090817-SSH-84-1	S-58502-090817-SSH-84-2	S-58502-090817-SSH-85-1	S-58502-090817-SSH-85-2	S-58502-090817-SSH-86	S-58502-090817-SSH-87	S-58502-090817-SSH-88	S-58502-090817-SSH-89
Sample Date:		9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:		(0-2.5) ft BGS	(2.5-3) ft BGS	(0-2.5) ft BGS	(2.5-3) ft BGS	(0-2) ft BGS	(2-2.5) ft BGS	(0-2.5) ft BGS	(2.5-3) ft BGS	(0-1.5) ft BGS	(0-3.5) ft BGS	(0-1.25) ft BGS	(0-2.5) ft BGS
matrix_code		SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters		Units											
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	11 UF1	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1221 (PCB-1221)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1232 (PCB-1232)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1242 (PCB-1242)	mg/kg	30	22	1.3	4.5	52	8.2	3.4	36	2.2	50	0.82 U	2.7
Aroclor-1248 (PCB-1248)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1254 (PCB-1254)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1260 (PCB-1260)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1262 (PCB-1262)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Aroclor-1268 (PCB-1268)	mg/kg	11 U	8.9 U	0.55 U	2.4 U	26 U	4.9 U	2.5 U	10 U	1 U	13 U	0.82 U	1 U
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Wet													
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-90	SS-91	SS-92	SS-93	SS-94	SS-95	SS-96	SS-97	SS-98	SS-98	SS-99	SS-100
Sample ID:	S-58502-090817-SSH-90	S-58502-090817-SSH-91	S-58502-090817-SSH-92	S-58502-090817-SSH-93	S-58502-090817-SSH-94	S-58502-090817-SSH-95	S-58502-090817-SSH-96	S-58502-090817-SSH-97	S-58502-090817-SSH-98-1	S-58502-090817-SSH-98-2	S-58502-090817-SSH-99	S-58502-090817-SSH-100-1
Sample Date:	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:	(0-2) ft BGS	(0-1.5) ft BGS	(0-1.25) ft BGS	(0-1.25) ft BGS	(0-1.5) ft BGS	(0-1.5) ft BGS	(0-0.5) ft BGS	(0-0.75) ft BGS	(0-1.5) ft BGS	(1.5-2) ft BGS	(0-3) ft BGS	(0-1.5) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
VOAs												
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
SVOAs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-90	SS-91	SS-92	SS-93	SS-94	SS-95	SS-96	SS-97	SS-98	SS-98	SS-99	SS-100
Sample ID:	S-58502-090817-SSH-90	S-58502-090817-SSH-91	S-58502-090817-SSH-92	S-58502-090817-SSH-93	S-58502-090817-SSH-94	S-58502-090817-SSH-95	S-58502-090817-SSH-96	S-58502-090817-SSH-97	S-58502-090817-SSH-98-1	S-58502-090817-SSH-98-2	S-58502-090817-SSH-99	S-58502-090817-SSH-100-1
Sample Date:	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:	(0-2) ft BGS	(0-1.5) ft BGS	(0-1.25) ft BGS	(0-1.25) ft BGS	(0-1.5) ft BGS	(0-1.5) ft BGS	(0-0.5) ft BGS	(0-0.75) ft BGS	(0-1.5) ft BGS	(1.5-2) ft BGS	(0-3) ft BGS	(0-1.5) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-90	SS-91	SS-92	SS-93	SS-94	SS-95	SS-96	SS-97	SS-98	SS-98	SS-99	SS-100
Sample ID:		S-58502-090817-SSH-90	S-58502-090817-SSH-91	S-58502-090817-SSH-92	S-58502-090817-SSH-93	S-58502-090817-SSH-94	S-58502-090817-SSH-95	S-58502-090817-SSH-96	S-58502-090817-SSH-97	S-58502-090817-SSH-98-1	S-58502-090817-SSH-98-2	S-58502-090817-SSH-99	S-58502-090817-SSH-100-1
Sample Date:		9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017	9/8/2017
Sample Depth:		(0-2) ft BGS	(0-1.5) ft BGS	(0-1.25) ft BGS	(0-1.25) ft BGS	(0-1.5) ft BGS	(0-1.5) ft BGS	(0-0.5) ft BGS	(0-0.75) ft BGS	(0-1.5) ft BGS	(1.5-2) ft BGS	(0-3) ft BGS	(0-1.5) ft BGS
matrix_code		SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters		Units											
MetalsSEM													
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
PCBs													
Aroclor-1016 (PCB-1016)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1221 (PCB-1221)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1232 (PCB-1232)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1242 (PCB-1242)	mg/kg	1.5	0.8 U	0.76 U	0.7 U	2.8	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1248 (PCB-1248)	mg/kg	1 U	0.8 U	1.8	1.9	0.87 U	2.7 p	2.6	18	1.8	15	34	150
Aroclor-1254 (PCB-1254)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1260 (PCB-1260)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1262 (PCB-1262)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Aroclor-1268 (PCB-1268)	mg/kg	1 U	0.8 U	0.76 U	0.7 U	0.87 U	0.75 U	0.91 U	5.1 U	0.51 U	4.3 U	10 U	53 U
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Wet													
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:	SS-100	SS-101	SS-102	SS-102	SS-103	SS-103	SS-104	SS-104	SS-105-17	SS-105-17	SS-106
Sample ID:	S-58502-090817-SSH-100-2	S-58502-090817-SSH-101	S-58502-092217-SSH-102-1	S-58502-092217-SSH-102-2	S-58502-092217-SSH-103-1	S-58502-092217-SSH-103-2	S-58502-092217-SSH-104-1	S-58502-092217-SSH-104-2	S-58502-092217-SSH-105-1	S-58502-092217-SSH-105-2	S-58502-092917-SSH-106-1
Sample Date:	9/8/2017	9/8/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/29/2017
Sample Depth:	(1.5-2) ft BGS	(0-0.5) ft BGS	(0-1) ft BGS	(2-2.5) ft BGS	(0-1) ft BGS	(2.5-3) ft BGS	(0-1) ft BGS	(1.5-2) ft BGS	(0-1) ft BGS	(2-2.5) ft BGS	(0-1) ft BGS
matrix_code	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units										
VOAs											
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-	-	-	-
SVOAs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-100	SS-101	SS-102	SS-102	SS-103	SS-103	SS-104	SS-104	SS-105-17	SS-105-17	SS-106
Sample ID:		S-58502-090817-SSH-100-2	S-58502-090817-SSH-101	S-58502-092217-SSH-102-1	S-58502-092217-SSH-102-2	S-58502-092217-SSH-103-1	S-58502-092217-SSH-103-2	S-58502-092217-SSH-104-1	S-58502-092217-SSH-104-2	S-58502-092217-SSH-105-1	S-58502-092217-SSH-105-2	S-58502-092917-SSH-106-1
Sample Date:		9/8/2017	9/8/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/29/2017
Sample Depth:		(1.5-2) ft BGS	(0-0.5) ft BGS	(0-1) ft BGS	(2-2.5) ft BGS	(0-1) ft BGS	(2.5-3) ft BGS	(0-1) ft BGS	(1.5-2) ft BGS	(0-1) ft BGS	(2-2.5) ft BGS	(0-1) ft BGS
matrix_code		SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters		Units										
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Metals												
Aluminum	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-

Table B.1

Secondary Pond Sediment Sample Results
RACER Saginaw Nodular Industrial Land
Saginaw, Michigan

Sample Location:		SS-100	SS-101	SS-102	SS-102	SS-103	SS-103	SS-104	SS-104	SS-105-17	SS-105-17	SS-106
Sample ID:		S-58502-090817-SSH-100-2	S-58502-090817-SSH-101	S-58502-092217-SSH-102-1	S-58502-092217-SSH-102-2	S-58502-092217-SSH-103-1	S-58502-092217-SSH-103-2	S-58502-092217-SSH-104-1	S-58502-092217-SSH-104-2	S-58502-092217-SSH-105-1	S-58502-092217-SSH-105-2	S-58502-092917-SSH-106-1
Sample Date:		9/8/2017	9/8/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/22/2017	9/29/2017
Sample Depth:		(1.5-2) ft BGS	(0-0.5) ft BGS	(0-1) ft BGS	(2-2.5) ft BGS	(0-1) ft BGS	(2.5-3) ft BGS	(0-1) ft BGS	(1.5-2) ft BGS	(0-1) ft BGS	(2-2.5) ft BGS	(0-1) ft BGS
matrix_code		SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Parameters	Units											
MetalsSEM												
Cadmium	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-	-	-	-	-
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 UF1	0.27 U
Aroclor-1221 (PCB-1221)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Aroclor-1232 (PCB-1232)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Aroclor-1242 (PCB-1242)	mg/kg	0.35 U	2.1 U	3.1	38	1.1	1.2	1.4	14	77	1.1	0.27 U
Aroclor-1248 (PCB-1248)	mg/kg	1.6	5.3	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Aroclor-1254 (PCB-1254)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Aroclor-1260 (PCB-1260)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Aroclor-1262 (PCB-1262)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Aroclor-1268 (PCB-1268)	mg/kg	0.35 U	2.1 U	2.1 U	19 U	0.34 U	0.4 U	0.52 U	4.2 U	49 U	0.72 U	0.27 U
Total PCBs	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Wet												
Ammonia	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-	-	-	-	-

Notes:

U Not detected at the associated reporting limit.

J Estimated concentration.

UJ Not detected; associated reporting limit is estimated.

R Rejected.

Table B.1								
Secondary Pond Sediment Sample Results								
RACER Saginaw Nodular Industrial Land								
Saginaw, Michigan								
Sample Location:	SS-107	SS-107	SS-108	SS-109	SS-109	SS-110	SS-110	
Sample ID:	S-58502-092917-SSH-107-1	S-58502-092917-SSH-107-2	S-58502-092917-SSH-108-1	S-58502-092917-SSH-109-1	S-58502-092917-SSH-109-2	S-58502-092917-SSH-110-1	S-58502-092917-SSH-110-2	
Sample Date:	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	
Sample Depth:	(0-1) ft BGS	(1-1.5) ft BGS	(0-1) ft BGS	(0-1) ft BGS	(2.5-3) ft BGS	(0-1) ft BGS	(1.5-2) ft BGS	
matrix_code	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units							
VOAs								
1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	-	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	-	-	-	-
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	-	-	-	-	-	-
Acetone	mg/kg	-	-	-	-	-	-	-
Benzene	mg/kg	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	-	-	-	-	-	-	-
Bromoform	mg/kg	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	-	-	-	-	-	-	-
Chloroethane	mg/kg	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	mg/kg	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	mg/kg	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-	-
Isopropyl benzene	mg/kg	-	-	-	-	-	-	-
Methyl acetate	mg/kg	-	-	-	-	-	-	-
Methyl cyclohexane	mg/kg	-	-	-	-	-	-	-
Methyl tert butyl ether (MTBE)	mg/kg	-	-	-	-	-	-	-
Methylene chloride	mg/kg	-	-	-	-	-	-	-
Styrene	mg/kg	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	-	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	-	-	-
Trichloroethene	mg/kg	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	mg/kg	-	-	-	-	-	-	-
Trifluorotrichloroethane (CFC-113)	mg/kg	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	-	-	-	-	-	-	-
Xylenes (total)	mg/kg	-	-	-	-	-	-	-
SVOAs								
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	-	-	-	-	-	-	-
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-

Table B.1								
Secondary Pond Sediment Sample Results								
RACER Saginaw Nodular Industrial Land								
Saginaw, Michigan								
Sample Location:	SS-107	SS-107	SS-108	SS-109	SS-109	SS-110	SS-110	
Sample ID:	S-58502-092917-SSH-107-1	S-58502-092917-SSH-107-2	S-58502-092917-SSH-108-1	S-58502-092917-SSH-109-1	S-58502-092917-SSH-109-2	S-58502-092917-SSH-110-1	S-58502-092917-SSH-110-2	
Sample Date:	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	
Sample Depth:	(0-1) ft BGS	(1-1.5) ft BGS	(0-1) ft BGS	(0-1) ft BGS	(2.5-3) ft BGS	(0-1) ft BGS	(1.5-2) ft BGS	
matrix_code	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units							
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-
Acenaphthene	mg/kg	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-	-
Acetophenone	mg/kg	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-
Atrazine	mg/kg	-	-	-	-	-	-	-
Benzaldehyde	mg/kg	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	-	-	-
Caprolactam	mg/kg	-	-	-	-	-	-	-
Carbazole	mg/kg	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	-	-	-
Isophorone	mg/kg	-	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	-	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-
Phenol	mg/kg	-	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-	-
Metals								
Aluminum	mg/kg	-	-	-	-	-	-	-
Antimony	mg/kg	-	-	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	-	-	-
Cation exchange capacity	meq/100g	-	-	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-	-	-
Cobalt	mg/kg	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-
Iron	mg/kg	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	-	-	-
Manganese	mg/kg	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-
Potassium	mg/kg	-	-	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-	-	-
Sodium	mg/kg	-	-	-	-	-	-	-
Thallium	mg/kg	-	-	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-	-	-
Vanadium	mg/kg	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-

Table B.1								
Secondary Pond Sediment Sample Results								
RACER Saginaw Nodular Industrial Land								
Saginaw, Michigan								
Sample Location:	SS-107	SS-107	SS-108	SS-109	SS-109	SS-110	SS-110	
Sample ID:	S-58502-092917-SSH-107-1	S-58502-092917-SSH-107-2	S-58502-092917-SSH-108-1	S-58502-092917-SSH-109-1	S-58502-092917-SSH-109-2	S-58502-092917-SSH-110-1	S-58502-092917-SSH-110-2	
Sample Date:	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	9/29/2017	
Sample Depth:	(0-1) ft BGS	(1-1.5) ft BGS	(0-1) ft BGS	(0-1) ft BGS	(2.5-3) ft BGS	(0-1) ft BGS	(1.5-2) ft BGS	
matrix_code	SE	SE	SE	SE	SE	SE	SE	
Parameters	Units							
MetalsSEM								
Cadmium	mg/kg	-	-	-	-	-	-	-
Copper	mg/kg	-	-	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-	-	-
Simultaneously extracted metals (SEM)/Acid-volatile sulfide ratio (AVS)	none	-	-	-	-	-	-	-
Zinc	mg/kg	-	-	-	-	-	-	-
PCBs								
Aroclor-1016 (PCB-1016)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Aroclor-1221 (PCB-1221)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Aroclor-1232 (PCB-1232)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Aroclor-1242 (PCB-1242)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	34	0.3 U	0.3 U
Aroclor-1248 (PCB-1248)	mg/kg	0.99	1.3	1.4	1.2	9.2 U	0.93	1.4
Aroclor-1254 (PCB-1254)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Aroclor-1260 (PCB-1260)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Aroclor-1262 (PCB-1262)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Aroclor-1268 (PCB-1268)	mg/kg	0.32 U	0.31 U	0.3 U	0.32 U	9.2 U	0.3 U	0.3 U
Total PCBs	mg/kg	-	-	-	-	-	-	-
Wet								
Ammonia	mg/kg	-	-	-	-	-	-	-
Ammonia-N	mg/kg	-	-	-	-	-	-	-
Cyanide (total)	mg/kg	-	-	-	-	-	-	-
Formaldehyde	mg/kg	-	-	-	-	-	-	-
Nitrate (as N)	mg/kg	-	-	-	-	-	-	-
Nitrite (as N)	mg/kg	-	-	-	-	-	-	-
Orthophosphate	mg/kg	-	-	-	-	-	-	-
pH, lab	s.u.	-	-	-	-	-	-	-
Soot carbon	mg/kg	-	-	-	-	-	-	-
Sulfide	mg/kg	-	-	-	-	-	-	-
Sulfide (acid volatile)	mg/kg	-	-	-	-	-	-	-
Total organic carbon (TOC)	%	-	-	-	-	-	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-
Total solids	%	-	-	-	-	-	-	-
Notes:								
U	Not detected at the associated reporting limit.							
J	Estimated concentration.							
UJ	Not detected; associated reporting limit is estimated.							
R	Rejected.							

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Attachment B



Memorandum

Draft for Review

January 29, 2018

To: Dave Favero (RACER)

Ref. No.: 058502

From: John-Eric Pardys/kf/28

Subject: Soil Characterization Results

GHD Services Inc. (GHD) has prepared the following memorandum at the request of RACER to document the results of soil samples collected from material stockpiled by Dan's Excavating Inc. from the nearby Interstate 75 (I-75) construction project at RACER's Saginaw Nodular Industrial Land (Site) in Saginaw, Michigan. Figure 1 presents the approximate location of the source of the stockpiled material from I-75 construction project. The purpose of the sampling was to characterize the stockpiled material for future re-use. Possible future re-use scenarios include but are not limited to; use as on-Site structural fill for future development or cover material for impacted sediments in the Secondary Pond.

The material removed from the I-75 construction project and stockpiled at the Site consisted of road bedding material (sand). Stockpiling of the road bedding material was initiated in June 2017. The material was placed in two stockpiles, one located near the Secondary Pond and the other located behind the former Waste Water Treatment Plant (WWTP) as presented in Figure 2. Material was unloaded at the Site then spread out and positioned at the top of the stockpile utilizing a bull-dozer. The estimated total volume of the stockpiled material is between 40,000 and 50,000 cubic yards with 2/3's of the material stockpiled near the Secondary Pond and 1/3 of the material stockpiled behind the former WWTP. Material stockpiling at the Site was stopped in November 2017, after which the stockpiles were stabilized and seeded.

On December 18, 2017, GHD staff collected 20 discrete samples of the stockpiled material, 12 from the stockpile located near the Secondary Pond and 8 from the stockpile located behind the former WWTP. Samples were collected utilizing a hand auger with locations spread out evenly around the stockpiles and at various depths. Figure 2 presents the approximate sample locations. The samples were submitted to TestAmerica Laboratories, Inc. on a standard 2-week turn, for analysis of Michigan 10 metals (SW 6010/6020/7471), VOCs (SW 8260), SVOCs (SW 8270), PCBs (SW 8082), TCL Herbicides (SW 8151), TCL Pesticides (SW 8082), and organic carbon (Walkley black method). The laboratory analytical reports are presented as Attachment A.

The sample results were initially compared to the Statewide Default Background levels. If the data were above State Default Background levels, the data were screened against the 2017 Proposed Non-Residential MDEQ Part 201 Criteria:

- Direct Contact, Criteria
- Particulate Soil Inhalation Criteria
- Infinite Source Volatile Soil Inhalation Criteria.



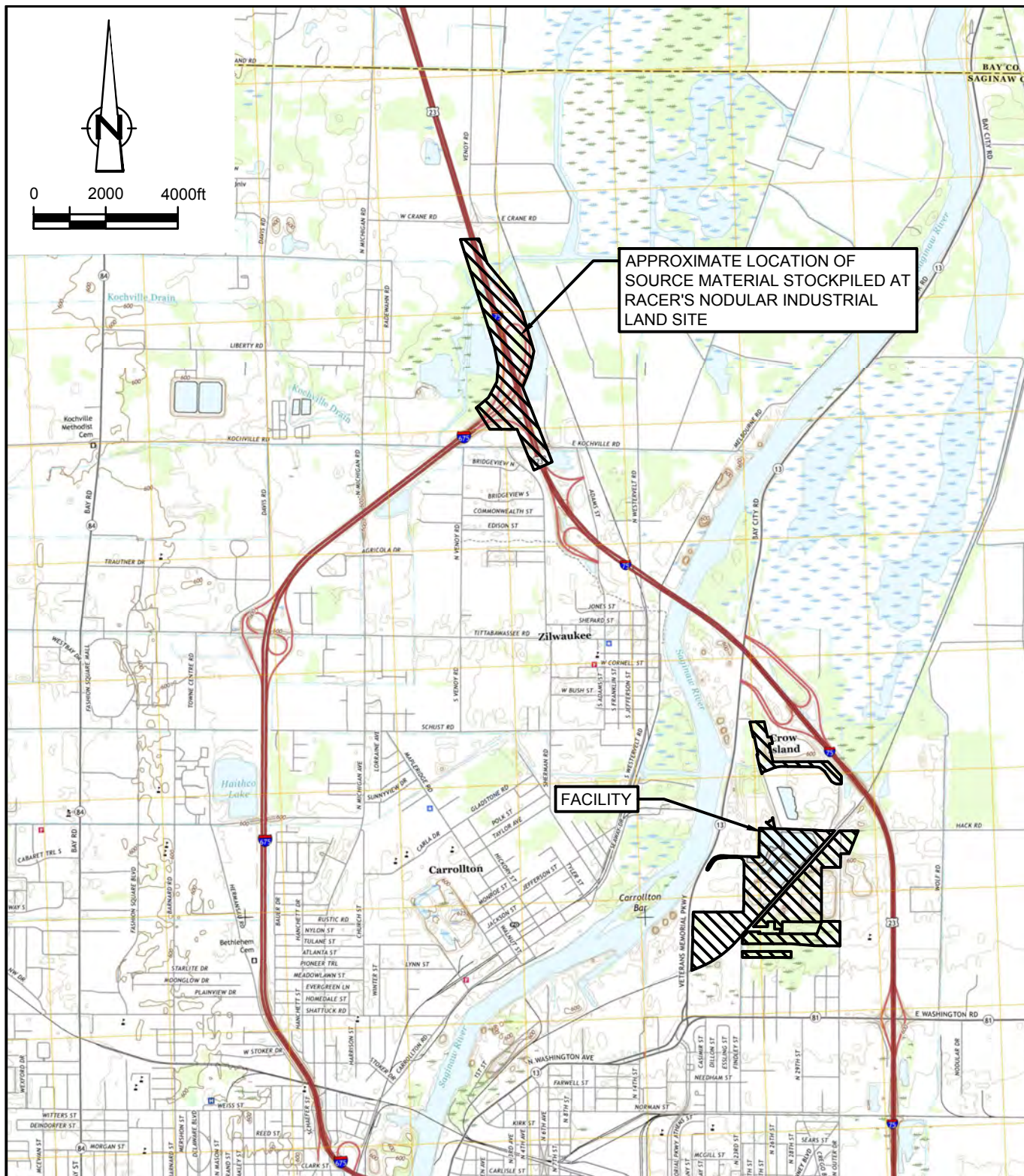
The data were not screened against:

- Groundwater/Surface Water Interface (GSI) Protection Criteria since there is no GSI Protection Criteria in the 2017 Proposed Non-Residential MDEQ Part 201 Criteria.
- Drinking Water Protection Criteria as the use of water as a potable source will be restricted at the Site.
- Residential Criteria since the Site will be restricted to non-residential use.

Table 1 presents a summary of the results. There were no exceedances of criteria for any of the samples.

In addition to the above analysis, GHD collected one sample from each stockpile to test for geotechnical properties (Proctor, Grain Size Analysis, Atterburg Limits, and Moisture Content). Please note that based on the sand content in Sample 2, the Atterburg limits were not able to be performed. The results of the geotechnical analysis are presented as Attachment B. Based on the sand content and gradation results, the material was deemed suitable for general back fill as well as structural back fill. Both the proctors and the visual observation of the material indicated good compaction properties.

Therefore, based on the analytical and geotechnical results, GHD has determined the stockpiled material is suitable for re-use on the site as either a general back fill or a structural back fill material.

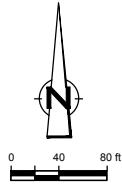
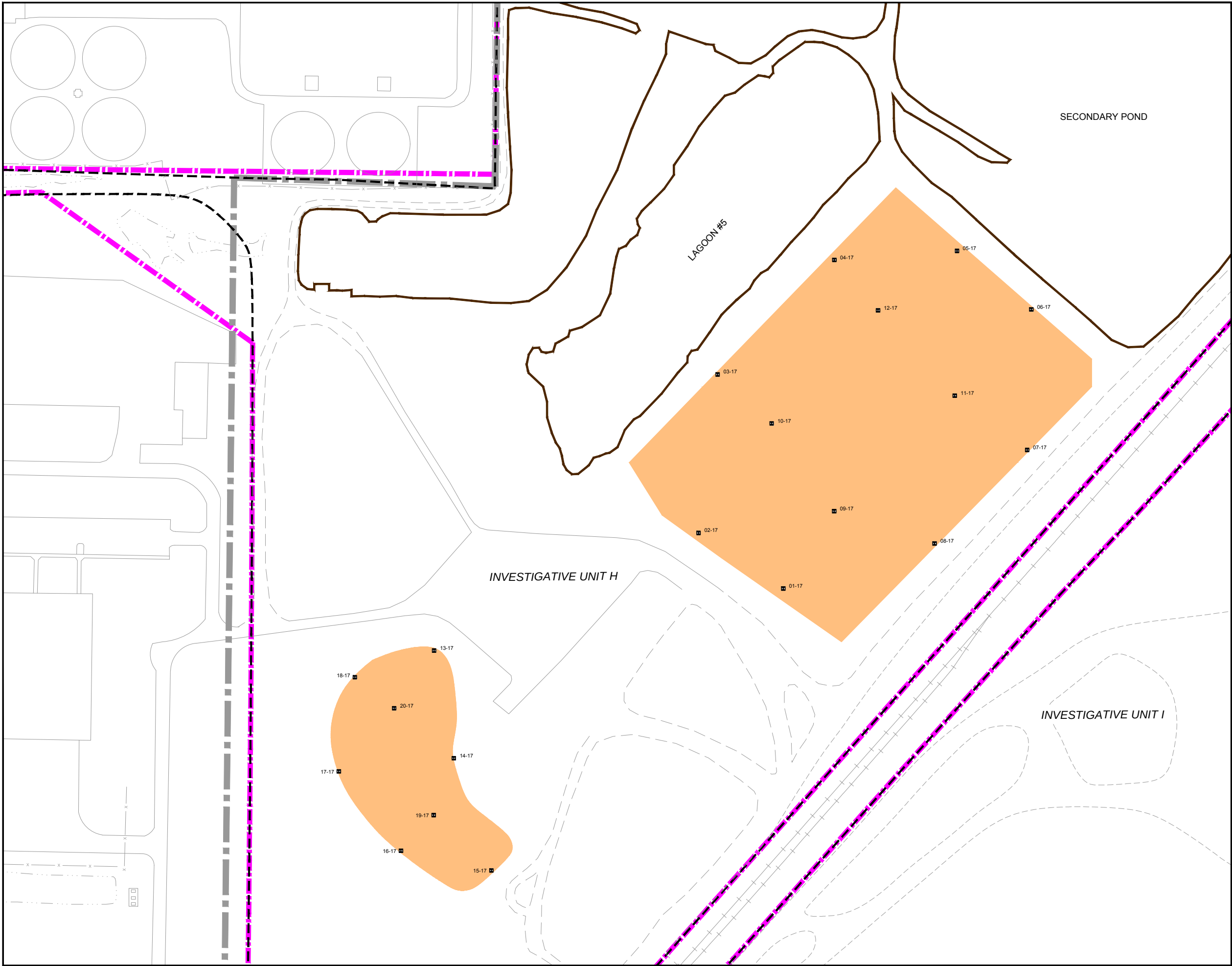


SOURCE: USGS QUADRANGLE MAP; SAGINAW AND BAY CITY, MICHIGAN 2017.

figure 1

STOCKPILE SOURCE LOCATION RACER - SAGINAW NODULAR INDUSTRIAL LAND *Saginaw, Michigan*

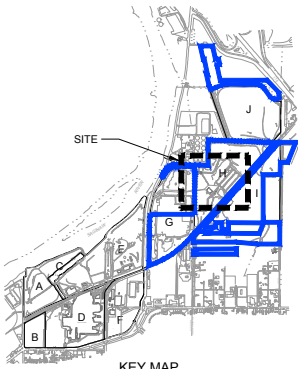




LEGEND

- INVESTIGATIVE UNIT BOUNDARY
- RACER PROPERTY
- APPROXIMATE LOCATION OF MATERIAL STOCKPILED BY DAVIS EXCAVATING
- APPROXIMATE STOCKPILE CHARACTERIZATION SAMPLE LOCATION

NOTE:
SAMPLES COLLECTED AT TOP EDGE OF SLOPE.



KEY MAP

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.



REVITALIZING AUTO COMMUNITES
ENVIRONMENTAL RESPONSE

SAGINAW, MICHIGAN

MATERIAL STOCKPILE CHARACTERIZATION
SAMPLE LOCATIONS - DEC. 18, 2017



Source Reference:
MICHIGAN STATE PLANE SOUTH, NAD 83 USING INTERNATIONAL FEET, NGVD 88
SPICER SURVEY, OCTOBER 2009.

Project Manager: I.R.	Reviewed By: M.T.	Date: JANUARY 2018
Scale: 1:80	Project N°: 58502-T02	Report N°: MEMO028
		Drawing N°: figure 2

Table 1

Summary of Soil Sampling Results from Stockpiled Material- December 2017
RACER Nodular Industrial Land
Saginaw, MI

Sample Location:
Sample ID:
Sample Date:
Sample Depth:

Stockpile-01-17
S-58502-121817-SSH-1001
12/18/2017
(0-1) ft BGS

Stockpile-02-17
S-58502-121817-SSH-1002
12/18/2017
(1-2) ft BGS

Stockpile-03-17
S-58502-121817-SSH-1003
12/18/2017
(2-3) ft BGS

Stockpile-04-17
S-58502-121817-SSH-1004
12/18/2017
(0-1) ft BGS

Stockpile-05-17
S-58502-121817-SSH-1005
12/18/2017
(1-2) ft BGS

Stockpile-06-17
S-58502-121817-SSH-1006
12/18/2017
(2-3) ft BGS

Stockpile-07-17
S-58502-121817-SSH-1007
12/18/2017
(0-1) ft BGS

Stockpile-08-17
S-58502-121817-SSH-1008
12/18/2017
(1-2) ft BGS

Stockpile-09-17
S-58502-121817-SSH-1009
12/18/2017
(2-3) ft BGS

Parameters	Units	Statewide Default Background	NONRES_Direct Contact Criteria	AA_NONRES_Partiate Source Volatile Soil Inhalation	AA_NONRES_Infinite Source Volatile Soil Inhalation Criteria									
VOAs		a	b	c	d									
1,1,1-Trichloroethane	mg/kg	-	100000	350000000	3700	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,1,2,2-Tetrachloroethane	mg/kg	-	170	52000	4.6	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,1,2-Trichloroethane	mg/kg	-	340	15	0.00066	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,1-Dichloroethane	mg/kg	-	5800	1900000	24	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,1-Dichloroethene	mg/kg	-	43000	15000000	120	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,2,4-Trichlorobenzene	mg/kg	-	1100	150000	27	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	-	41	540	0.1	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	-	17	5000	0.26	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
1,2-Dichlorobenzene	mg/kg	-	100000	23000000	1600	0.1 U	0.11 U	0.1 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
1,2-Dichloroethane	mg/kg	-	360	120000	3.1	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,2-Dichloropropane	mg/kg	-	920	310000	7	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
1,3-Dichlorobenzene	mg/kg	-	1700	230000	14	0.1 U	0.11 U	0.1 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
1,4-Dichlorobenzene	mg/kg	-	2600	770000	48	0.1 U	0.11 U	0.1 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	-	100000	250000000	18000	0.78 U	0.8 U	0.75 U	0.74 U	0.74 U	0.77 U	0.77 U	0.76 U	0.72 U
2-Hexanone	mg/kg	-	4300	2300000	180	2.6 U	2.7 U	2.5 U	2.5 U	2.5 U	2.6 U	2.6 U	2.5 U	2.4 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	-	43000	150000000	9400	2.6 U	2.7 U	2.5 U	2.5 U	2.5 U	2.6 U	2.6 U	2.5 U	2.4 U
Acetone	mg/kg	-	100000	1600000000	130000	0.78 U	0.8 U	0.75 U	0.74 U	0.74 U	0.77 U	0.77 U	0.76 U	0.72 U
Benzene	mg/kg	-	430	380000	8.2	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Bromodichloromethane	mg/kg	-	530	150000	3.7	0.1 U	0.11 U	0.1 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
Bromoform	mg/kg	-	4200	2700000	160	0.1 U	0.11 U	0.1 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
Bromomethane (Methyl bromide)	mg/kg	-	17000	770000	6.8	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Carbon disulfide	mg/kg	-	55000	54000000	400	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Carbon tetrachloride	mg/kg	-	510	540000	5.2	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Chlorobenzene	mg/kg	-	17000	3800000	150	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Chloroethane	mg/kg	-	17000	310000000	2500	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Chloroform (Trichloromethane)	mg/kg	-	8500	130000	2.1	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Chloromethane (Methyl chloride)	mg/kg	-	10000	6900000	52	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
cis-1,2-Dichloroethene	mg/kg	-	1700	620000	9.3	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
cis-1,3-Dichloropropene	mg/kg	-	-	-	-	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Cyclohexane	mg/kg	-	-	460000000	3200	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dibromochloromethane	mg/kg	-	390	120000	5.9	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Dichlorodifluoromethane (CFC-12)	mg/kg	-	4300	25000000	160	0.1 U	0.11 U	0.099 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
Ethylbenzene	mg/kg	-	3000	1200000	41	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Isopropyl benzene	mg/kg	-	85000	290000	11	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Methyl acetate	mg/kg	-	-	-	-	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Methyl cyclohexane	mg/kg	-	-	-	-	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Methyl tert butyl ether (MTBE)	mg/kg	-	9800	12000000	340	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Methylene chloride	mg/kg	-	5100	46000000	610	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Styrene	mg/kg	-	2600	5300000	290	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Tetrachloroethene	mg/kg	-	5100	2100000	30	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Toluene	mg/kg	-	67000	380000000	9700	0.1 U	0.11 U	0.099 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
trans-1,2-Dichloroethene	mg/kg	-	17000	40000000	460	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
trans-1,3-Dichloropropene	mg/kg	-	-	-	-	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Trichloroethene	mg/kg	-	250	100000	1.4	0.052 U	0.054 U	0.05 U	0.049 U	0.049 U	0.051 U	0.051 U	0.051 U	0.048 U
Trichlorofluoromethane (CFC-11)	mg/kg	-	100000	34000000	240	0.1 U	0.11 U	0.1 U	0.099 U	0.099 U	0.1 U	0.1 U	0.1 U	0.096 U
Trifluorotrichloroethane (CFC-113)	mg/kg	-	100000	1500000000	14000	0.26 U	0.27 U	0.25 U	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	0.24 U
Vinyl chloride	mg/kg	-	46	680000	4.3	0.042 U	0.043 U	0.04 U	0.04 U	0.039 U	0.041 U	0.041 U	0.041 U	0.038 U
Xylenes (total)	mg/kg	-	100000	17000000	580	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.14 U
SVOAs														
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2,4,5-Trichlorophenol	mg/kg	-	26000	27000000	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2,4,6-Trichlorophenol	mg/kg	-	3000	970000	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2,4-Dichlorophenol	mg/kg	-	17000	850000	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2,4-Dimethylphenol	mg/kg	-	17000	5400000	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2,4-Dinitrophenol	mg/kg	-	1700	540000	-	0.17 U	0.18 U	0.17 U	0.17 U	0.16 U	0.17 U	0.17 U	0.17 U	0.16 U
2,4-Dinitrotoluene	mg/kg	-	49	34000	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2-Chloronaphthalene	mg/kg	-	68000	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2-Chlorophenol	mg/kg	-	4000	900000	680	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2-Methylnaphthalene	mg/kg	-	3400	770000	270	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2-Methylphenol	mg/kg	-	100000	7700000	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
2-Nitroaniline	mg/kg	-	-	-	-	0.23 U	0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U
2-Nitrophenol	mg/kg	-	1700	3900	2.7	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
3&4-Methylphenol	mg/kg	-	-	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
3,3'-Dichlorobenzidine	mg/kg	-	74	8800	-	1.8 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
3-Nitroaniline	mg/kg	-	-	-	-	0.23 U	0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U
4,6-Dinitro-2-methylphenol	mg/kg	-	340	150000	-	0.17 U	0.18 U	0.17 U	0.17 U	0.16 U	0.17 U	0.17 U	0.17 U	0.16 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
4-Chloro-3-methylphenol	mg/kg	-	50000	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
4-Chloroaniline	mg/kg	-	170	-	-	0.23 U	0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	0.3 U	0.32 U	0.29 U	0.3 U	0.29 U	0.3 U	0.3 U	0.29 U	0.29 U
4-Nitroaniline	mg/kg	-	-	-	-	0.23 U	0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	0.22 U	0.22 U
4-Nitrophenol	mg/kg	-	-	-	-	0.38 U	0.4 U	0.37 U	0.37 U	0.36 U	0.38 U	0.37 U	0.37 U	0.36 U

Table 1

Summary of Soil Sampling Results from Stockpiled Material- December 2017
RACER Nodular Industrial Land
Saginaw, MI

Sample Location:
Sample ID:
Sample Date:
Sample Depth:

Stockpile-01-17
S-58502-121817-SSH-1001
12/18/2017
(0-1) ft BGS

Stockpile-02-17
S-58502-121817-SSH-1002
12/18/2017
(1-2) ft BGS

Stockpile-03-17
S-58502-121817-SSH-1003
12/18/2017
(2-3) ft BGS

Stockpile-04-17
S-58502-121817-SSH-1004
12/18/2017
(0-1) ft BGS

Stockpile-05-17
S-58502-121817-SSH-1005
12/18/2017
(1-2) ft BGS

Stockpile-06-17
S-58502-121817-SSH-1006
12/18/2017
(2-3) ft BGS

Stockpile-07-17
S-58502-121817-SSH-1007
12/18/2017
(0-1) ft BGS

Stockpile-08-17
S-58502-121817-SSH-1008
12/18/2017
(1-2) ft BGS

Stockpile-09-17
S-58502-121817-SSH-1009
12/18/2017
(2-3) ft BGS

Parameters	Units	Statewide Default Background	NONRES_Direct Contact Criteria	AA_NONRES_Parti culate Soil Inhalation	AA_NONRES_Infini te Source Volatile Soil Inhalation Criteria									
Endosulfan sulfate	mg/kg	-	-	-	-	0.0059 U*	0.0062 U*	0.0058 U*	0.0056 U*	0.029 U*	0.0057 U*	0.0058 U*	0.0058 U*	0.0056 U*
Endrin	mg/kg	-	370	-	-	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
Endrin aldehyde	mg/kg	-	-	-	-	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
Endrin ketone	mg/kg	-	-	-	-	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
gamma-BHC (lindane)	mg/kg	-	39	-	-	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
gamma-Chlordane	mg/kg	-	-	-	-	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
Heptachlor	mg/kg	-	40	2300	38	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
Heptachlor epoxide	mg/kg	-	13	1200	4.8	0.0059 U	0.0062 U	0.0058 U	0.0056 U	0.029 U	0.0057 U	0.0058 U	0.0058 U	0.0056 U
Methoxychlor	mg/kg	-	3500	-	-	0.011 U	0.012 U	0.011 U	0.011 U	0.056 U	0.011 U	0.011 U	0.011 U	0.011 U
Toxaphene	mg/kg	-	44	9400	-	0.12 U	0.12 U	0.11 U	0.11 U	0.56 U	0.11 U	0.11 U	0.11 U	0.11 U
Herbicides														
2,4,5-T	mg/kg	-	-	-	-	0.0077 U	0.01 U	0.0075 U	0.013 U	0.0096 U	0.013 U	0.017 U	0.038 U	0.0073 U
2,4,5-TP (Silvex)	mg/kg	-	6800	-	-	0.0077 U	0.01 U	0.0075 U	0.013 U	0.0096 U	0.013 U	0.017 U	0.038 U	0.0073 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	-	53000	13000000	-	0.0077 U	0.01 U	0.0075 U	0.013 U	0.0096 U	0.013 U	0.017 U	0.038 U	0.0073 U
Wet														
Total organic carbon (TOC)	mg/kg	-	-	-	-	3500	13000	3800	4000	4500	6000	3400	2900	4100

Footnotes:
U Not detected at the associated reporting limit.

Table 1

Summary of Soil Sampling Results from Stockpiled Material- December 2017
RACER Nodular Industrial Land
Saginaw, MI

Sample Location:	Stockpile-10-17	Stockpile-11-17	Stockpile-12-17	Stockpile-13-17	Stockpile-14-17	Stockpile-15-17	Stockpile-16-17	Stockpile-17-17	Stockpile-18-17	Stockpile-19-17	Stockpile-20-17	Stockpile-20-17	
Sample ID:	S-58502-121817-SSH-1010	S-58502-121817-SSH-1011	S-58502-121817-SSH-1012	S-58502-121817-SSH-1013	S-58502-121817-SSH-1014	S-58502-121817-SSH-1015	S-58502-121817-SSH-1016	S-58502-121817-SSH-1017	S-58502-121817-SSH-1018	S-58502-121817-SSH-1019	S-58502-121817-SSH-1020	S-58502-121817-SSH-1021	
Sample Date:	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	
Sample Depth:	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(1-2) ft BGS (Duplicate)	
Parameters	Units												
VOAs													
1,1,1-Trichloroethane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,1,2,2-Tetrachloroethane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,1,2-Trichloroethane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,1-Dichloroethane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,1-Dichloroethene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,2,4-Trichlorobenzene	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
1,2-Dibromoethane (Ethylene dibromide)	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
1,2-Dichlorobenzene	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
1,2-Dichloroethane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,2-Dichloropropane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
1,3-Dichlorobenzene	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
1,4-Dichlorobenzene	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/kg	0.68 U	0.78 U	0.75 U	0.83 U	0.72 U	0.75 U	0.8 U	0.68 U	0.72 U	0.73 U	0.81 U	0.7 U*
2-Hexanone	mg/kg	2.3 U	2.6 U	2.5 U	2.8 U	2.4 U	2.5 U	2.7 U	2.3 U	2.4 U	2.4 U	2.7 U	2.3 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/kg	2.3 U	2.6 U	2.5 U	2.8 U	2.4 U	2.5 U	2.7 U	2.3 U	2.4 U	2.4 U	2.7 U	2.3 U
Acetone	mg/kg	0.68 U	0.78 U	0.75 U	0.83 U	0.72 U	0.75 U	0.8 U	0.68 U	0.72 U	0.73 U	0.81 U	0.7 U
Benzene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Bromodichloromethane	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
Bromoform	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
Bromomethane (Methyl bromide)	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Carbon disulfide	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Carbon tetrachloride	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Chlorobenzene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Chloroethane	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Chloroform (Trichloromethane)	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Chloromethane (Methyl chloride)	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
cis-1,2-Dichloroethene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
cis-1,3-Dichloropropene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Cyclohexane	mg/kg	1.1 U	1.2 U	1.2 U	1.3 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U
Dibromochloromethane	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Dichlorodifluoromethane (CFC-12)	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
Ethylbenzene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Isopropyl benzene	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Methyl acetate	mg/kg	1.1 U	1.2 U	1.2 U	1.3 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U
Methyl cyclohexane	mg/kg	1.1 U	1.2 U	1.2 U	1.3 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U
Methyl tert butyl ether (MTBE)	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Methylene chloride	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Styrene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Tetrachloroethene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Toluene	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
trans-1,2-Dichloroethene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
trans-1,3-Dichloropropene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Trichloroethene	mg/kg	0.045 U	0.052 U	0.05 U	0.055 U	0.048 U	0.05 U	0.054 U	0.046 U	0.048 U	0.049 U	0.054 U	0.047 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.09 U	0.1 U	0.099 U	0.11 U	0.095 U	0.1 U	0.11 U	0.091 U	0.096 U	0.097 U	0.11 U	0.093 U
Trifluorotrichloroethane (CFC-113)	mg/kg	0.23 U	0.26 U	0.25 U	0.28 U	0.24 U	0.25 U	0.27 U	0.23 U	0.24 U	0.24 U	0.27 U	0.23 U
Vinyl chloride	mg/kg	0.036 U	0.041 U	0.04 U	0.044 U	0.038 U	0.04 U	0.043 U	0.037 U	0.038 U	0.039 U	0.043 U	0.037 U
Xylenes (total)	mg/kg	0.14 U	0.16 U	0.15 U	0.17 U	0.14 U	0.15 U	0.16 U	0.14 U	0.14 U	0.15 U	0.16 U	0.14 U
SVOAs													
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U	0.3 U
2,4,5-Trichlorophenol	mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U	0.3 U
2,4,6-Trichlorophenol	mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U	0.3 U
2,4-Dichlorophenol	mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U	0.3 U
2,4-Dimethylphenol	mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.2				

Table 1

Summary of Soil Sampling Results from Stockpiled Material- December 2017
RACER Nodular Industrial Land
Saginaw, MI

Sample Location:		Stockpile-10-17	Stockpile-11-17	Stockpile-12-17	Stockpile-13-17	Stockpile-14-17	Stockpile-15-17	Stockpile-16-17	Stockpile-17-17	Stockpile-18-17	Stockpile-19-17	Stockpile-20-17	Stockpile-20-17
Sample ID:		S-58502-121817-SSH-1010	S-58502-121817-SSH-1011	S-58502-121817-SSH-1012	S-58502-121817-SSH-1013	S-58502-121817-SSH-1014	S-58502-121817-SSH-1015	S-58502-121817-SSH-1016	S-58502-121817-SSH-1017	S-58502-121817-SSH-1018	S-58502-121817-SSH-1019	S-58502-121817-SSH-1020	S-58502-121817-SSH-1021
Sample Date:		12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017
Sample Depth:		(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(1-2) ft BGS (Duplicate)
Parameters		Units											
Acenaphthene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Acenaphthylene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Acetophenone		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Anthracene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Atrazine		mg/kg	0.044 U*	0.047 U*	0.045 U*	0.048 U*	0.045 U*	0.047 U*	0.047 U*	0.042 U*	0.045 U*	0.044 U*	0.045 U*
Benzaldehyde		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Benzo(a)anthracene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.32	0.32 U
Benzo(a)pyrene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Benzo(b)fluoranthene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.43	0.32 U
Benzo(g,h,i)perylene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Benzo(k)fluoranthene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Biphenyl (1,1-Biphenyl)		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
bis(2-Chloroethoxy)methane		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
bis(2-Chloroethyl)ether		mg/kg	0.087 U	0.094 U	0.091 U	0.097 U	0.091 U	0.094 U	0.094 U	0.084 U	0.089 U	0.087 U	0.095 U
bis(2-Ethylhexyl)phthalate (DEHP)		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Butyl benzylphthalate (BBP)		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Caprolactam		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Carbazole		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Chrysene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.31	0.32 U
Dibenz(a,h)anthracene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Dibenzofuran		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Diethyl phthalate		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Dimethyl phthalate		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Di-n-butylphthalate (DBP)		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Di-n-octyl phthalate (DnOP)		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Fluoranthene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.87	0.32 U
Fluorene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Hexachlorobenzene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Hexachlorobutadiene		mg/kg	0.044 U	0.047 U	0.045 U	0.048 U	0.045 U	0.047 U	0.047 U	0.042 U	0.045 U	0.044 U	0.048 U
Hexachlorocyclopentadiene		mg/kg	0.29 U	0.31 UF1	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Hexachloroethane		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Indeno(1,2,3-cd)pyrene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Isophorone		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Naphthalene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Nitrobenzene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
N-Nitrosodi-n-propylamine		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
N-Nitrosodiphenylamine		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Pentachlorophenol		mg/kg	0.16 U	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U	0.18 U	0.16 U	0.17 U	0.16 U	0.17 U
Phenanthrene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.55	0.32 U
Phenol		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.29 U	0.32 U
Pyrene		mg/kg	0.29 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U	0.28 U	0.3 U	0.76	0.32 U
Metals													
Arsenic		mg/kg	2.3	2.3	2.1	3.3	3.3	3.1	2.4	1.7	2.8	2.4	3.7
Barium		mg/kg	21	29	47	35	30	22	23	8.0	27	21	28
Cadmium		mg/kg	0.10	0.12	0.12	0.14	0.15	0.12	0.097	0.058 U	0.13	0.11	0.24
Chromium		mg/kg	7.1	8.5	14	11	9.2	5.7	7.2	3.1	7.1	9.0	11
Copper		mg/kg	5.0	6.8	9.9	9.6	7.6	6.0	5.9	2.7	6.0	5.1	11
Lead		mg/kg	7.0	8.4	5.0	8.0	11	11	6.7	5.0	13	7.0	39
Mercury		mg/kg	0.048 U	0.045 U	0.045 U	0.050 U	0.051 U	0.051 U	0.050 U	0.046 U	0.048 U	0.043	0.050 U
Selenium		mg/kg	0.20	0.38	0.45	0.40	0.31	0.23	0.26	0.16	0.24	0.17	0.31
Silver		mg/kg	0.086 U	0.082 U	0.079 U	0.079 U	0.089 U	0.065 U	0.072 U	0.058 U	0.066 U	0.080 U	0.089 U
Zinc		mg/kg	18	24	25	36	36	26	17	9.5	27	25	47
PCBs													
Aroclor-1016 (PCB-1016)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Aroclor-1221 (PCB-1221)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Aroclor-1232 (PCB-1232)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Aroclor-1242 (PCB-1242)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Aroclor-1248 (PCB-1248)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Aroclor-1254 (PCB-1254)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Aroclor-1260 (PCB-1260)		mg/kg	0.055 U	0.059 U	0.054 U	0.06 U	0.055 U	0.056 U	0.058 U	0.053 U	0.055 U	0.055 U	0.059 U
Pesticides													
4,4'-DDD		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
4,4'-DDE		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
4,4'-DDT		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Aldrin		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
alpha-BHC		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
alpha-Chlordane		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
beta-BHC		mg/kg	0.0055 U*	0.03 U*	0.0056 U*	0.0061 U*	0.0059 U	0.0056 U*	0.0059 U*	0.0053 U*	0.0057 U*	0.0056 U*	0.03 U*
delta-BHC		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Dieldrin		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Endosulfan I		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Endosulfan II		mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U

Table 1

Summary of Soil Sampling Results from Stockpiled Material- December 2017
RACER Nodular Industrial Land
Saginaw, MI

Sample Location:	Stockpile-10-17	Stockpile-11-17	Stockpile-12-17	Stockpile-13-17	Stockpile-14-17	Stockpile-15-17	Stockpile-16-17	Stockpile-17-17	Stockpile-18-17	Stockpile-19-17	Stockpile-20-17	Stockpile-20-17
Sample ID:	S-58502-121817-SSH-1010	S-58502-121817-SSH-1011	S-58502-121817-SSH-1012	S-58502-121817-SSH-1013	S-58502-121817-SSH-1014	S-58502-121817-SSH-1015	S-58502-121817-SSH-1016	S-58502-121817-SSH-1017	S-58502-121817-SSH-1018	S-58502-121817-SSH-1019	S-58502-121817-SSH-1020	S-58502-121817-SSH-1021
Sample Date:	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017	12/18/2017
Sample Depth:	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(2-3) ft BGS	(0-1) ft BGS	(1-2) ft BGS	(1-2) ft BGS (Duplicate)
Parameters	Units											
Endosulfan sulfate	mg/kg	0.0055 U*	0.03 U*	0.0056 U*	0.0061 U*	0.0059 U*	0.0056 U*	0.0059 U*	0.0053 U*	0.0057 U*	0.0056 U*	0.03 U*
Endrin	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Endrin aldehyde	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Endrin ketone	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
gamma-BHC (lindane)	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
gamma-Chlordane	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Heptachlor	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Heptachlor epoxide	mg/kg	0.0055 U	0.03 U	0.0056 U	0.0061 U	0.0059 U	0.0056 U	0.0059 U	0.0053 U	0.0057 U	0.0056 U	0.03 U
Methoxychlor	mg/kg	0.011 U	0.058 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U	0.01 U	0.011 U	0.011 U	0.058 U
Toxaphene	mg/kg	0.11 U	0.58 U	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.59 U
Herbicides												
2,4,5-T	mg/kg	0.014 U	0.0078 U	0.013 U	0.039 U	0.012 U	0.061 U	0.0083 U	0.0083 U	0.039 U	0.061 U	0.039 U
2,4,5-TP (Silvex)	mg/kg	0.014 U	0.0078 U	0.013 U	0.039 U	0.012 U	0.061 U	0.0083 U	0.0083 U	0.039 U	0.061 U	0.039 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	0.014 U	0.0078 U	0.013 U	0.039 U	0.012 U	0.061 U	0.0083 U	0.0083 U	0.039 U	0.061 U	0.039 U
Wet												
Total organic carbon (TOC)	mg/kg	3500	3600	4500	7200	5400	3800	2700	2200	3100	4100	9600
Footnotes:												
U Not detected at the associated reporting limit.												

Attachment A

Laboratory 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: 240-89576-1

Client Project/Site: 58502-019, RACER Nodular Iron

For:

GHD Services Inc.

26850 Haggerty Rd.

Farmington Hills, Michigan 48331

Attn: James Abston



Authorized for release by:

1/5/2018 2:02:21 PM

Denise Heckler, Project Manager II

(330)966-9477

denise.heckler@testamericainc.com

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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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Case Narrative

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Job ID: 240-89576-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative 240-89576-1

Comments

No additional comments.

Receipt

The samples were received on 12/19/2017 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 5.5° C.

GC/MS VOA

Method(s) 5035: All samples were received in pre-weighed containers with a label that was added in the field, which would cause a slight low bias in the final results.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-308903 and analytical batch 240-309086.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-308903 and analytical batch 240-309377.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-308992 and analytical batch 240-309377.

Method(s) 8260B: The laboratory control sample (LCS) for preparation batch 240-308992 and analytical batch 240-309377 recovered outside control limits for 2-butanone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The method blank for preparation batch 240-308992 contained Chlorobenzene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method(s) 5035: Insufficient sample volume was available to perform a client requested matrix spike/matrix spike duplicate (MS/MSD) for sample S-58502-121817-SSH-1011 (240-89576-11) associated with preparation batch 240-308903.

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 laboratory control sample (LCS) for prep batch 309572 recovered outside control limits for the following analytes: Atrazine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: S-58502-121817-SSH-1001 (240-89576-1), S-58502-121817-SSH-1002 (240-89576-2), S-58502-121817-SSH-1003 (240-89576-3), S-58502-121817-SSH-1004 (240-89576-4), S-58502-121817-SSH-1005 (240-89576-5), S-58502-121817-SSH-1006 (240-89576-6), S-58502-121817-SSH-1007 (240-89576-7), S-58502-121817-SSH-1008 (240-89576-8), S-58502-121817-SSH-1009 (240-89576-9), S-58502-121817-SSH-1010 (240-89576-10), S-58502-121817-SSH-1011 (240-89576-11), S-58502-121817-SSH-1011 (240-89576-11[MS]), S-58502-121817-SSH-1011 (240-89576-11[MSD]), S-58502-121817-SSH-1012 (240-89576-12), S-58502-121817-SSH-1013 (240-89576-13), S-58502-121817-SSH-1014 (240-89576-14) and S-58502-121817-SSH-1015 (240-89576-15).3394463, 3154249, 3361889.

Method(s) 8082A: 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 samples contained an allowable number of surrogate

Case Narrative

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Job ID: 240-89576-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

compounds outside limits: S-58502-121817-SSH-1001 (240-89576-1). These results have been reported and qualified.

Method(s) 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: S-58502-121817-SSH-1016 (240-89576-16) and S-58502-121817-SSH-1017 (240-89576-17).3414952, 3154249, 3361889.

Method(s) 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: S-58502-121817-SSH-1019 (240-89576-19) and S-58502-121817-SSH-1020 (240-89576-20).3414952, 3154249, 3361889.

Method(s) 8082A: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: S-58502-121817-SSH-1021 (240-89576-21).3414952, 3154249, 3361889.

Method(s) 8081A: The laboratory control sample (LCS) for preparation batch 240-309456 and analytical batch 240-309735 recovered outside control limits for the following analytes Endosulfan sulfate and beta-BHC: These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8081A: Surrogate Tetrachloro-m-xylene recovery for the following sample was outside the upper control limit: S-58502-121817-SSH-1005 (240-89576-5). This sample did not contain any target analytes; therefore, re-extraction and re-analysis was not performed.

Method(s) 8081A: The following samples were diluted due to the nature of the sample matrix : S-58502-121817-SSH-1020 (240-89576-20), S-58502-121817-SSH-1021 (240-89576-21) and (240-89578-E-4-G). As such, surrogate recoveries might be below the calibration range, and elevated reporting limits (RLs) are provided.

Method(s) 8081A: The laboratory control sample (LCS) for preparation batch 240-309456 and analytical batch 240-309842 recovered outside control limits for the following analytes: beta-BHC and Endosulfan sulfate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8081A: The following samples were diluted due to the nature of the sample matrix S-58502-121817-SSH-1005 (240-89576-5) and S-58502-121817-SSH-1011 (240-89576-11). As such, surrogate recoveries may be below the calibration range, and elevated reporting limits (RLs) are provided.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 600-228778 recovered above the upper control limit for 2,4-D(19.9%), and DCAA(24.8%),. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCV 600-228778/27).

Method(s) 8151A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 600-228696 and analytical batch 600-228778 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8151A: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 600-228696 and analytical batch 600-228778 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 600-228778 recovered above the upper control limit for 2,4-D(37.3%), DCAA(38.8%),and 2,4,5-TP(26.6%) The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 600-228778/51) and (CCV 600-228778/52).

Method(s) 8151A: Surrogate recovery for the following samples was outside control limits: S-58502-121817-SSH-1009 (240-89576-9), S-58502-121817-SSH-1011 (240-89576-11), S-58502-121817-SSH-1012 (240-89576-12), S-58502-121817-SSH-1019 (240-89576-19) and S-58502-121817-SSH-1020 (240-89576-20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8151A: The following samples was diluted due to dark color appearance: S-58502-121817-SSH-1008 (240-89576-8), S-58502-121817-SSH-1013 (240-89576-13), S-58502-121817-SSH-1015 (240-89576-15), S-58502-121817-SSH-1018 (240-89576-18) and S-58502-121817-SSH-1020 (240-89576-20). Elevated reporting limits (RL) are provided.

Case Narrative

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Job ID: 240-89576-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: S-58502-121817-SSH-1001 (240-89576-1), S-58502-121817-SSH-1002 (240-89576-2), S-58502-121817-SSH-1003 (240-89576-3), S-58502-121817-SSH-1004 (240-89576-4), S-58502-121817-SSH-1005 (240-89576-5), S-58502-121817-SSH-1006 (240-89576-6), S-58502-121817-SSH-1007 (240-89576-7), S-58502-121817-SSH-1008 (240-89576-8), S-58502-121817-SSH-1009 (240-89576-9), S-58502-121817-SSH-1010 (240-89576-10), S-58502-121817-SSH-1011 (240-89576-11), S-58502-121817-SSH-1012 (240-89576-12), S-58502-121817-SSH-1013 (240-89576-13), S-58502-121817-SSH-1014 (240-89576-14), S-58502-121817-SSH-1015 (240-89576-15), S-58502-121817-SSH-1016 (240-89576-16), S-58502-121817-SSH-1017 (240-89576-17), S-58502-121817-SSH-1018 (240-89576-18), S-58502-121817-SSH-1019 (240-89576-19) and S-58502-121817-SSH-1020 (240-89576-20). The continuing calibration blanks and method blanks may not support the lower PQL.

Method(s) 6020: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: S-58502-121817-SSH-1001 (240-89576-1), S-58502-121817-SSH-1002 (240-89576-2), S-58502-121817-SSH-1003 (240-89576-3), S-58502-121817-SSH-1004 (240-89576-4), S-58502-121817-SSH-1005 (240-89576-5), S-58502-121817-SSH-1006 (240-89576-6), S-58502-121817-SSH-1007 (240-89576-7), S-58502-121817-SSH-1008 (240-89576-8), S-58502-121817-SSH-1009 (240-89576-9), S-58502-121817-SSH-1010 (240-89576-10), S-58502-121817-SSH-1011 (240-89576-11), S-58502-121817-SSH-1012 (240-89576-12), S-58502-121817-SSH-1013 (240-89576-13), S-58502-121817-SSH-1014 (240-89576-14), S-58502-121817-SSH-1015 (240-89576-15), S-58502-121817-SSH-1016 (240-89576-16), S-58502-121817-SSH-1017 (240-89576-17), S-58502-121817-SSH-1018 (240-89576-18), S-58502-121817-SSH-1019 (240-89576-19) and S-58502-121817-SSH-1020 (240-89576-20). The continuing calibration blanks and method blanks may not support the lower PQL.

Method(s) 7471A, 7471B: The laboratory control sample (LCS) for preparation batch 240-308713 and analytical batch 240-308949 recovered outside control limits for the following analytes: mercury. These analytes were biased high in the LCS and were below the requested reporting limit in the associated samples; therefore, the data have been reported. S-58502-121817-SSH-1021 (240-89576-21)

Method(s) 200.7 Rev 4.4, 6010B, 6010C: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: S-58502-121817-SSH-1021 (240-89576-21). The continuing calibration blanks and method blanks may not support the lower PQL.

Method(s) 6020: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: S-58502-121817-SSH-1021 (240-89576-21). The continuing calibration blanks and method blanks may not support the lower PQL.

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) 8151A: Elevated reporting limits are provided for the following samples due to insufficient sample provided for preparation: S-58502-121817-SSH-1002 (240-89576-2), S-58502-121817-SSH-1004 (240-89576-4), S-58502-121817-SSH-1005 (240-89576-5), S-58502-121817-SSH-1006 (240-89576-6), S-58502-121817-SSH-1007 (240-89576-7), S-58502-121817-SSH-1010 (240-89576-10), S-58502-121817-SSH-1012 (240-89576-12), S-58502-121817-SSH-1013 (240-89576-13), S-58502-121817-SSH-1014 (240-89576-14), S-58502-121817-SSH-1015 (240-89576-15), S-58502-121817-SSH-1016 (240-89576-16), S-58502-121817-SSH-1017 (240-89576-17), S-58502-121817-SSH-1018 (240-89576-18) and S-58502-121817-SSH-1019 (240-89576-19).

Method(s) 8151A: Due to the matrix, the following samples could not be concentrated to the final method required volume: S-58502-121817-SSH-1007 (240-89576-7), S-58502-121817-SSH-1013 (240-89576-13) and S-58502-121817-SSH-1019 (240-89576-19). 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.

VOA 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: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD 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.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

TestAmerica Canton

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-89576-1	S-58502-121817-SSH-1001	Solid	12/18/17 09:30	12/19/17 10:30
240-89576-2	S-58502-121817-SSH-1002	Solid	12/18/17 09:40	12/19/17 10:30
240-89576-3	S-58502-121817-SSH-1003	Solid	12/18/17 09:55	12/19/17 10:30
240-89576-4	S-58502-121817-SSH-1004	Solid	12/18/17 10:05	12/19/17 10:30
240-89576-5	S-58502-121817-SSH-1005	Solid	12/18/17 10:15	12/19/17 10:30
240-89576-6	S-58502-121817-SSH-1006	Solid	12/18/17 10:30	12/19/17 10:30
240-89576-7	S-58502-121817-SSH-1007	Solid	12/18/17 10:40	12/19/17 10:30
240-89576-8	S-58502-121817-SSH-1008	Solid	12/18/17 10:50	12/19/17 10:30
240-89576-9	S-58502-121817-SSH-1009	Solid	12/18/17 11:05	12/19/17 10:30
240-89576-10	S-58502-121817-SSH-1010	Solid	12/18/17 11:20	12/19/17 10:30
240-89576-11	S-58502-121817-SSH-1011	Solid	12/18/17 11:30	12/19/17 10:30
240-89576-12	S-58502-121817-SSH-1012	Solid	12/18/17 11:45	12/19/17 10:30
240-89576-13	S-58502-121817-SSH-1013	Solid	12/18/17 12:15	12/19/17 10:30
240-89576-14	S-58502-121817-SSH-1014	Solid	12/18/17 12:25	12/19/17 10:30
240-89576-15	S-58502-121817-SSH-1015	Solid	12/18/17 12:40	12/19/17 10:30
240-89576-16	S-58502-121817-SSH-1016	Solid	12/18/17 12:50	12/19/17 10:30
240-89576-17	S-58502-121817-SSH-1017	Solid	12/18/17 13:00	12/19/17 10:30
240-89576-18	S-58502-121817-SSH-1018	Solid	12/18/17 13:15	12/19/17 10:30
240-89576-19	S-58502-121817-SSH-1019	Solid	12/18/17 13:25	12/19/17 10:30
240-89576-20	S-58502-121817-SSH-1020	Solid	12/18/17 13:40	12/19/17 10:30
240-89576-21	S-58502-121817-SSH-1021	Solid	12/18/17 13:41	12/19/17 10:30

Detection Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1001

Lab Sample ID: 240-89576-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	24		0.74	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.10		0.074	mg/Kg	1	✱	6010B	Total/NA
Chromium	8.5		0.74	mg/Kg	1	✱	6010B	Total/NA
Copper	6.9		0.74	mg/Kg	1	✱	6010B	Total/NA
Zinc	23		1.8	mg/Kg	1	✱	6010B	Total/NA
Lead	16		0.22	mg/Kg	1	✱	6010B	Total/NA
Arsenic	4.7		0.074	mg/Kg	2	✱	6020	Total/NA
Selenium	0.32		0.15	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	3500		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1002

Lab Sample ID: 240-89576-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	63		0.72	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.25		0.072	mg/Kg	1	✱	6010B	Total/NA
Chromium	22		0.72	mg/Kg	1	✱	6010B	Total/NA
Copper	20		0.72	mg/Kg	1	✱	6010B	Total/NA
Zinc	84		1.8	mg/Kg	1	✱	6010B	Total/NA
Lead	16		0.22	mg/Kg	1	✱	6010B	Total/NA
Arsenic	3.1		0.072	mg/Kg	2	✱	6020	Total/NA
Selenium	0.72		0.14	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	13000		1200	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1003

Lab Sample ID: 240-89576-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	25		0.65	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.11		0.065	mg/Kg	1	✱	6010B	Total/NA
Chromium	10		0.65	mg/Kg	1	✱	6010B	Total/NA
Copper	7.3		0.65	mg/Kg	1	✱	6010B	Total/NA
Zinc	45		1.6	mg/Kg	1	✱	6010B	Total/NA
Lead	4.3		0.20	mg/Kg	1	✱	6010B	Total/NA
Arsenic	4.8		0.065	mg/Kg	2	✱	6020	Total/NA
Selenium	0.32		0.13	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	3800		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1004

Lab Sample ID: 240-89576-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	25		0.73	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.12		0.073	mg/Kg	1	✱	6010B	Total/NA
Chromium	8.3		0.73	mg/Kg	1	✱	6010B	Total/NA
Copper	7.1		0.73	mg/Kg	1	✱	6010B	Total/NA
Zinc	21		1.8	mg/Kg	1	✱	6010B	Total/NA
Lead	3.6		0.22	mg/Kg	1	✱	6010B	Total/NA
Arsenic	2.0		0.073	mg/Kg	2	✱	6020	Total/NA
Selenium	0.39		0.15	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	4000		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1005

Lab Sample ID: 240-89576-5

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1005 (Continued)

Lab Sample ID: 240-89576-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	37		0.80	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.080	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.80	mg/Kg	1	☼	6010B	Total/NA
Copper	8.7		0.80	mg/Kg	1	☼	6010B	Total/NA
Zinc	24		2.0	mg/Kg	1	☼	6010B	Total/NA
Lead	5.3		0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.5		0.080	mg/Kg	2	☼	6020	Total/NA
Selenium	0.37		0.16	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	4500		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1006

Lab Sample ID: 240-89576-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	45		0.75	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18		0.075	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.75	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.75	mg/Kg	1	☼	6010B	Total/NA
Zinc	35		1.9	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.22	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.4		0.075	mg/Kg	2	☼	6020	Total/NA
Selenium	0.48		0.15	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	6000		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1007

Lab Sample ID: 240-89576-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	21		0.76	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.092		0.076	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.1		0.76	mg/Kg	1	☼	6010B	Total/NA
Copper	6.1		0.76	mg/Kg	1	☼	6010B	Total/NA
Zinc	31		1.9	mg/Kg	1	☼	6010B	Total/NA
Lead	9.4		0.23	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.3		0.076	mg/Kg	2	☼	6020	Total/NA
Selenium	0.27		0.15	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	3400		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1008

Lab Sample ID: 240-89576-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	8.7		0.65	mg/Kg	1	☼	6010B	Total/NA
Chromium	3.7		0.65	mg/Kg	1	☼	6010B	Total/NA
Copper	2.4		0.65	mg/Kg	1	☼	6010B	Total/NA
Zinc	11		1.6	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	1.4		0.065	mg/Kg	2	☼	6020	Total/NA
Selenium	0.14		0.13	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	2900		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1009

Lab Sample ID: 240-89576-9

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1009 (Continued)

Lab Sample ID: 240-89576-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	38		0.78	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.12		0.078	mg/Kg	1	✱	6010B	Total/NA
Chromium	12		0.78	mg/Kg	1	✱	6010B	Total/NA
Copper	8.0		0.78	mg/Kg	1	✱	6010B	Total/NA
Zinc	24		1.9	mg/Kg	1	✱	6010B	Total/NA
Lead	5.3		0.23	mg/Kg	1	✱	6010B	Total/NA
Arsenic	3.3		0.078	mg/Kg	2	✱	6020	Total/NA
Selenium	0.36		0.16	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	4100		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1010

Lab Sample ID: 240-89576-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	21		0.86	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.10		0.086	mg/Kg	1	✱	6010B	Total/NA
Chromium	7.1		0.86	mg/Kg	1	✱	6010B	Total/NA
Copper	5.0		0.86	mg/Kg	1	✱	6010B	Total/NA
Zinc	18		2.2	mg/Kg	1	✱	6010B	Total/NA
Lead	7.0		0.26	mg/Kg	1	✱	6010B	Total/NA
Arsenic	2.3		0.086	mg/Kg	2	✱	6020	Total/NA
Selenium	0.20		0.17	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	3500		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1011

Lab Sample ID: 240-89576-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	29		0.82	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.12		0.082	mg/Kg	1	✱	6010B	Total/NA
Chromium	8.5		0.82	mg/Kg	1	✱	6010B	Total/NA
Copper	6.8		0.82	mg/Kg	1	✱	6010B	Total/NA
Zinc	24		2.0	mg/Kg	1	✱	6010B	Total/NA
Lead	8.4		0.25	mg/Kg	1	✱	6010B	Total/NA
Arsenic	2.3		0.082	mg/Kg	2	✱	6020	Total/NA
Selenium	0.38		0.16	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	3600		1200	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1012

Lab Sample ID: 240-89576-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	47		0.79	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.12		0.079	mg/Kg	1	✱	6010B	Total/NA
Chromium	14		0.79	mg/Kg	1	✱	6010B	Total/NA
Copper	9.9		0.79	mg/Kg	1	✱	6010B	Total/NA
Zinc	25		2.0	mg/Kg	1	✱	6010B	Total/NA
Lead	5.0		0.24	mg/Kg	1	✱	6010B	Total/NA
Arsenic	2.1		0.079	mg/Kg	2	✱	6020	Total/NA
Selenium	0.45		0.16	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	4500		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1013

Lab Sample ID: 240-89576-13

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1013 (Continued)

Lab Sample ID: 240-89576-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	35		0.79	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.14		0.079	mg/Kg	1	✱	6010B	Total/NA
Chromium	11		0.79	mg/Kg	1	✱	6010B	Total/NA
Copper	9.6		1.6	mg/Kg	2	✱	6010B	Total/NA
Zinc	36		2.0	mg/Kg	1	✱	6010B	Total/NA
Lead	8.0		0.24	mg/Kg	1	✱	6010B	Total/NA
Arsenic	3.3		0.079	mg/Kg	2	✱	6020	Total/NA
Selenium	0.40		0.16	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	7200		1200	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1014

Lab Sample ID: 240-89576-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	30		0.89	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.15		0.089	mg/Kg	1	✱	6010B	Total/NA
Chromium	9.2		0.89	mg/Kg	1	✱	6010B	Total/NA
Copper	7.6		0.89	mg/Kg	1	✱	6010B	Total/NA
Zinc	36		2.2	mg/Kg	1	✱	6010B	Total/NA
Lead	11		0.27	mg/Kg	1	✱	6010B	Total/NA
Arsenic	3.3		0.089	mg/Kg	2	✱	6020	Total/NA
Selenium	0.31		0.18	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	5400		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1015

Lab Sample ID: 240-89576-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	22		0.65	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.12		0.065	mg/Kg	1	✱	6010B	Total/NA
Chromium	5.7		0.65	mg/Kg	1	✱	6010B	Total/NA
Copper	6.0		0.65	mg/Kg	1	✱	6010B	Total/NA
Zinc	26		1.6	mg/Kg	1	✱	6010B	Total/NA
Lead	11		0.19	mg/Kg	1	✱	6010B	Total/NA
Arsenic	3.1		0.065	mg/Kg	2	✱	6020	Total/NA
Selenium	0.23		0.13	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	3800		1100	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1016

Lab Sample ID: 240-89576-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	23		0.72	mg/Kg	1	✱	6010B	Total/NA
Cadmium	0.097		0.072	mg/Kg	1	✱	6010B	Total/NA
Chromium	7.2		0.72	mg/Kg	1	✱	6010B	Total/NA
Copper	5.9		0.72	mg/Kg	1	✱	6010B	Total/NA
Zinc	17		1.8	mg/Kg	1	✱	6010B	Total/NA
Lead	6.7		0.22	mg/Kg	1	✱	6010B	Total/NA
Arsenic	2.4		0.072	mg/Kg	2	✱	6020	Total/NA
Selenium	0.26		0.14	mg/Kg	2	✱	6020	Total/NA
Total Organic Carbon	2700		1200	mg/Kg	1	✱	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1017

Lab Sample ID: 240-89576-17

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1017 (Continued)

Lab Sample ID: 240-89576-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	8.0		0.58	mg/Kg	1	☼	6010B	Total/NA
Chromium	3.1		0.58	mg/Kg	1	☼	6010B	Total/NA
Copper	2.7		0.58	mg/Kg	1	☼	6010B	Total/NA
Zinc	9.5		1.4	mg/Kg	1	☼	6010B	Total/NA
Lead	5.0		0.17	mg/Kg	1	☼	6010B	Total/NA
Arsenic	1.7		0.058	mg/Kg	2	☼	6020	Total/NA
Selenium	0.16		0.12	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	2200		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1018

Lab Sample ID: 240-89576-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	27		0.66	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.13		0.066	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.1		0.66	mg/Kg	1	☼	6010B	Total/NA
Copper	6.0		0.66	mg/Kg	1	☼	6010B	Total/NA
Zinc	27		1.7	mg/Kg	1	☼	6010B	Total/NA
Lead	13		0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.8		0.066	mg/Kg	2	☼	6020	Total/NA
Selenium	0.24		0.13	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	3100		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1019

Lab Sample ID: 240-89576-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	320		290	ug/Kg	1	☼	8270C	Total/NA
Benzo[b]fluoranthene	430		290	ug/Kg	1	☼	8270C	Total/NA
Chrysene	310		290	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	870		290	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	550		290	ug/Kg	1	☼	8270C	Total/NA
Pyrene	760		290	ug/Kg	1	☼	8270C	Total/NA
Barium	21		0.80	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.080	mg/Kg	1	☼	6010B	Total/NA
Chromium	7.1		0.80	mg/Kg	1	☼	6010B	Total/NA
Copper	5.1		0.80	mg/Kg	1	☼	6010B	Total/NA
Zinc	25		2.0	mg/Kg	1	☼	6010B	Total/NA
Lead	7.0		0.24	mg/Kg	1	☼	6010B	Total/NA
Arsenic	2.4		0.080	mg/Kg	2	☼	6020	Total/NA
Selenium	0.17		0.16	mg/Kg	2	☼	6020	Total/NA
Mercury	0.043		0.041	mg/Kg	1	☼	7471A	Total/NA
Total Organic Carbon	4100		1100	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1020

Lab Sample ID: 240-89576-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	28		0.89	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.089	mg/Kg	1	☼	6010B	Total/NA
Chromium	9.0		0.89	mg/Kg	1	☼	6010B	Total/NA
Copper	11		0.89	mg/Kg	1	☼	6010B	Total/NA
Zinc	47		2.2	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1020 (Continued)

Lab Sample ID: 240-89576-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lead	39		0.27	mg/Kg	1	☼	6010B	Total/NA
Arsenic	3.7		0.089	mg/Kg	2	☼	6020	Total/NA
Selenium	0.31		0.18	mg/Kg	2	☼	6020	Total/NA
Total Organic Carbon	9600		1200	mg/Kg	1	☼	Walkley Black	Total/NA

Client Sample ID: S-58502-121817-SSH-1021

Lab Sample ID: 240-89576-21

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Barium	40		0.67	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.21		0.067	mg/Kg	1	☼	6010B	Total/NA
Chromium	11		0.67	mg/Kg	1	☼	6010B	Total/NA
Copper	14		0.67	mg/Kg	1	☼	6010B	Total/NA
Zinc	67		1.7	mg/Kg	1	☼	6010B	Total/NA
Lead	37		0.20	mg/Kg	1	☼	6010B	Total/NA
Arsenic	1.9		0.033	mg/Kg	1	☼	6020	Total/NA
Selenium	0.16		0.067	mg/Kg	1	☼	6020	Total/NA
Total Organic Carbon	8200		1100	mg/Kg	1	☼	Walkley Black	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8081A	Organochlorine Pesticides (GC)	SW846	TAL CAN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
8151	Herbicides	SW846	TAL HOU
6010B	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
7471A	Mercury (CVAA)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
Walkley Black	Organic Carbon, Total (TOC)	MSA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MSA = "Methods Of Soil Analysis, Chemical And Microbiological Properties", Part 2, 2nd Ed., 1982 And Subsequent Revisions.

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

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	780	U	780	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Benzene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Bromomethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
2-Butanone (MEK)	780	U	780	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Carbon disulfide	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Carbon tetrachloride	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Chlorobenzene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Chloroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Chloroform	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Chloromethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,1-Dichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,2-Dichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,1-Dichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,2-Dichloropropane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
cis-1,3-Dichloropropene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
trans-1,3-Dichloropropene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Ethylbenzene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
2-Hexanone	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Methylene Chloride	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
4-Methyl-2-pentanone (MIBK)	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Styrene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,1,2,2-Tetrachloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Tetrachloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Trichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Vinyl chloride	42	U	42	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Xylenes, Total	160	U	160	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,1,1-Trichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,1,2-Trichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Cyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,2-Dibromo-3-Chloropropane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,2-Dibromoethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
cis-1,2-Dichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
trans-1,2-Dichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Isopropylbenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Methyl acetate	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Methyl tert-butyl ether	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,2,4-Trichlorobenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Dibromochloromethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1
Methylcyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 15:33	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 144	12/22/17 11:39	12/26/17 15:33	1
4-Bromofluorobenzene (Surr)	93		58 - 142	12/22/17 11:39	12/26/17 15:33	1
Toluene-d8 (Surr)	96		61 - 137	12/22/17 11:39	12/26/17 15:33	1
Dibromofluoromethane (Surr)	105		31 - 155	12/22/17 11:39	12/26/17 15:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	800	U	800	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Benzene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Bromodichloromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Bromoform	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Bromomethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
2-Butanone (MEK)	800	U	800	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Carbon disulfide	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Carbon tetrachloride	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Chlorobenzene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Chloroethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Chloroform	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Chloromethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,1-Dichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,2-Dichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,1-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,2-Dichloropropane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
cis-1,3-Dichloropropene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
trans-1,3-Dichloropropene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Ethylbenzene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
2-Hexanone	2700	U	2700	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Methylene Chloride	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
4-Methyl-2-pentanone (MIBK)	2700	U	2700	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Styrene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,1,2,2-Tetrachloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Tetrachloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Toluene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Trichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Vinyl chloride	43	U	43	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Xylenes, Total	160	U	160	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,1,1-Trichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,1,2-Trichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Cyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,2-Dibromo-3-Chloropropane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,2-Dibromoethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Dichlorodifluoromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
cis-1,2-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
trans-1,2-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Isopropylbenzene	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Methyl acetate	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Methyl tert-butyl ether	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,2,4-Trichlorobenzene	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,2-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,3-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
1,4-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Trichlorofluoromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Dibromochloromethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1
Methylcyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 15:56	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		64 - 144	12/22/17 11:39	12/26/17 15:56	1
4-Bromofluorobenzene (Surr)	104		58 - 142	12/22/17 11:39	12/26/17 15:56	1
Toluene-d8 (Surr)	109		61 - 137	12/22/17 11:39	12/26/17 15:56	1
Dibromofluoromethane (Surr)	115		31 - 155	12/22/17 11:39	12/26/17 15:56	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	750	U	750	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Benzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Bromomethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
2-Butanone (MEK)	750	U	750	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Carbon disulfide	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Carbon tetrachloride	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Chlorobenzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Chloroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Chloroform	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Chloromethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,1-Dichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,2-Dichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,1-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,2-Dichloropropane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
cis-1,3-Dichloropropene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
trans-1,3-Dichloropropene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Ethylbenzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
2-Hexanone	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Methylene Chloride	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Styrene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,1,2,2-Tetrachloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Tetrachloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Trichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Vinyl chloride	40	U	40	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,1,1-Trichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,1,2-Trichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,2-Dibromo-3-Chloropropane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,2-Dibromoethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
cis-1,2-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
trans-1,2-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Isopropylbenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Methyl tert-butyl ether	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,2,4-Trichlorobenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Dibromochloromethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 16:19	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		64 - 144	12/22/17 11:39	12/26/17 16:19	1
4-Bromofluorobenzene (Surr)	97		58 - 142	12/22/17 11:39	12/26/17 16:19	1
Toluene-d8 (Surr)	103		61 - 137	12/22/17 11:39	12/26/17 16:19	1
Dibromofluoromethane (Surr)	107		31 - 155	12/22/17 11:39	12/26/17 16:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	740	U	740	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Benzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Bromodichloromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Bromoform	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Bromomethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
2-Butanone (MEK)	740	U	740	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Carbon disulfide	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Carbon tetrachloride	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Chlorobenzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Chloroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Chloroform	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Chloromethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,1-Dichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,2-Dichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,1-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,2-Dichloropropane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
cis-1,3-Dichloropropene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
trans-1,3-Dichloropropene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Ethylbenzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
2-Hexanone	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Methylene Chloride	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Styrene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,1,2,2-Tetrachloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Tetrachloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Toluene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Trichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Vinyl chloride	40	U	40	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,1,1-Trichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,1,2-Trichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,2-Dibromo-3-Chloropropane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,2-Dibromoethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Dichlorodifluoromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
cis-1,2-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
trans-1,2-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Isopropylbenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Methyl tert-butyl ether	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,2,4-Trichlorobenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,2-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,3-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
1,4-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Trichlorofluoromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Dibromochloromethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 16:41	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		64 - 144	12/22/17 11:39	12/26/17 16:41	1
4-Bromofluorobenzene (Surr)	101		58 - 142	12/22/17 11:39	12/26/17 16:41	1
Toluene-d8 (Surr)	106		61 - 137	12/22/17 11:39	12/26/17 16:41	1
Dibromofluoromethane (Surr)	107		31 - 155	12/22/17 11:39	12/26/17 16:41	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	740	U	740	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Benzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Bromodichloromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Bromoform	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Bromomethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
2-Butanone (MEK)	740	U	740	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Carbon disulfide	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Carbon tetrachloride	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Chlorobenzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Chloroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Chloroform	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Chloromethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,1-Dichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,2-Dichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,1-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,2-Dichloropropane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
cis-1,3-Dichloropropene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
trans-1,3-Dichloropropene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Ethylbenzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
2-Hexanone	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Methylene Chloride	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Styrene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,1,2,2-Tetrachloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Tetrachloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Toluene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Trichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Vinyl chloride	39	U	39	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,1,1-Trichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,1,2-Trichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,2-Dibromo-3-Chloropropane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,2-Dibromoethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Dichlorodifluoromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
cis-1,2-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
trans-1,2-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Isopropylbenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Methyl tert-butyl ether	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,2,4-Trichlorobenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,2-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,3-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
1,4-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Trichlorofluoromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Dibromochloromethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:03	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		64 - 144	12/22/17 11:39	12/26/17 17:03	1
4-Bromofluorobenzene (Surr)	95		58 - 142	12/22/17 11:39	12/26/17 17:03	1
Toluene-d8 (Surr)	101		61 - 137	12/22/17 11:39	12/26/17 17:03	1
Dibromofluoromethane (Surr)	104		31 - 155	12/22/17 11:39	12/26/17 17:03	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	770	U	770	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Benzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Bromomethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
2-Butanone (MEK)	770	U	770	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Carbon disulfide	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Carbon tetrachloride	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Chlorobenzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Chloroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Chloroform	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Chloromethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,1-Dichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,2-Dichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,1-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,2-Dichloropropane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
cis-1,3-Dichloropropene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
trans-1,3-Dichloropropene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Ethylbenzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
2-Hexanone	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Methylene Chloride	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
4-Methyl-2-pentanone (MIBK)	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Styrene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,1,2,2-Tetrachloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Tetrachloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Trichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Vinyl chloride	41	U	41	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,1,1-Trichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,1,2-Trichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,2-Dibromo-3-Chloropropane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,2-Dibromoethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
cis-1,2-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
trans-1,2-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Isopropylbenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Methyl tert-butyl ether	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,2,4-Trichlorobenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Dibromochloromethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:26	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 144	12/22/17 11:39	12/26/17 17:26	1
4-Bromofluorobenzene (Surr)	101		58 - 142	12/22/17 11:39	12/26/17 17:26	1
Toluene-d8 (Surr)	108		61 - 137	12/22/17 11:39	12/26/17 17:26	1
Dibromofluoromethane (Surr)	109		31 - 155	12/22/17 11:39	12/26/17 17:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	770	U	770	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Benzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Bromomethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
2-Butanone (MEK)	770	U	770	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Carbon disulfide	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Carbon tetrachloride	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Chlorobenzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Chloroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Chloroform	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Chloromethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,1-Dichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,2-Dichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,1-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,2-Dichloropropane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
cis-1,3-Dichloropropene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
trans-1,3-Dichloropropene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Ethylbenzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
2-Hexanone	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Methylene Chloride	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
4-Methyl-2-pentanone (MIBK)	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Styrene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,1,2,2-Tetrachloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Tetrachloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Trichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Vinyl chloride	41	U	41	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,1,1-Trichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,1,2-Trichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,2-Dibromo-3-Chloropropane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,2-Dibromoethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
cis-1,2-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
trans-1,2-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Isopropylbenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Methyl tert-butyl ether	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,2,4-Trichlorobenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Dibromochloromethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 17:49	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 144	12/22/17 11:39	12/26/17 17:49	1
4-Bromofluorobenzene (Surr)	98		58 - 142	12/22/17 11:39	12/26/17 17:49	1
Toluene-d8 (Surr)	103		61 - 137	12/22/17 11:39	12/26/17 17:49	1
Dibromofluoromethane (Surr)	106		31 - 155	12/22/17 11:39	12/26/17 17:49	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	760	U	760	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Benzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Bromomethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
2-Butanone (MEK)	760	U	760	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Carbon disulfide	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Carbon tetrachloride	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Chlorobenzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Chloroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Chloroform	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Chloromethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,1-Dichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,2-Dichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,1-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,2-Dichloropropane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
cis-1,3-Dichloropropene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
trans-1,3-Dichloropropene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Ethylbenzene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
2-Hexanone	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Methylene Chloride	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Styrene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,1,2,2-Tetrachloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Tetrachloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Trichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Vinyl chloride	41	U	41	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,1,1-Trichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,1,2-Trichloroethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,2-Dibromo-3-Chloropropane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,2-Dibromoethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
cis-1,2-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
trans-1,2-Dichloroethene	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Isopropylbenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Methyl tert-butyl ether	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,2,4-Trichlorobenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Dibromochloromethane	51	U	51	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 18:11	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 144	12/22/17 11:39	12/26/17 18:11	1
4-Bromofluorobenzene (Surr)	97		58 - 142	12/22/17 11:39	12/26/17 18:11	1
Toluene-d8 (Surr)	100		61 - 137	12/22/17 11:39	12/26/17 18:11	1
Dibromofluoromethane (Surr)	99		31 - 155	12/22/17 11:39	12/26/17 18:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	720	U	720	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Benzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Bromodichloromethane	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Bromoform	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Bromomethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
2-Butanone (MEK)	720	U	720	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Carbon disulfide	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Carbon tetrachloride	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Chlorobenzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Chloroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Chloroform	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Chloromethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,1-Dichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,2-Dichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,1-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,2-Dichloropropane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
cis-1,3-Dichloropropene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
trans-1,3-Dichloropropene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Ethylbenzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
2-Hexanone	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Methylene Chloride	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
4-Methyl-2-pentanone (MIBK)	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Styrene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,1,2,2-Tetrachloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Tetrachloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Toluene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Trichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Vinyl chloride	38	U	38	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Xylenes, Total	140	U	140	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,1,1-Trichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,1,2-Trichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,2-Dibromo-3-Chloropropane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,2-Dibromoethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Dichlorodifluoromethane	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
cis-1,2-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
trans-1,2-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Isopropylbenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Methyl tert-butyl ether	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,2,4-Trichlorobenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,2-Dichlorobenzene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,3-Dichlorobenzene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
1,4-Dichlorobenzene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Trichlorofluoromethane	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Dibromochloromethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 18:33	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 144	12/22/17 11:39	12/26/17 18:33	1
4-Bromofluorobenzene (Surr)	95		58 - 142	12/22/17 11:39	12/26/17 18:33	1
Toluene-d8 (Surr)	102		61 - 137	12/22/17 11:39	12/26/17 18:33	1
Dibromofluoromethane (Surr)	104		31 - 155	12/22/17 11:39	12/26/17 18:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	680	U	680	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Benzene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Bromodichloromethane	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Bromoform	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Bromomethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
2-Butanone (MEK)	680	U	680	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Carbon disulfide	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Carbon tetrachloride	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Chlorobenzene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Chloroethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Chloroform	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Chloromethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,1-Dichloroethane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,2-Dichloroethane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,1-Dichloroethene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,2-Dichloropropane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
cis-1,3-Dichloropropene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
trans-1,3-Dichloropropene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Ethylbenzene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
2-Hexanone	2300	U	2300	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Methylene Chloride	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Styrene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,1,2,2-Tetrachloroethane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Tetrachloroethene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Toluene	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Trichloroethene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Vinyl chloride	36	U	36	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Xylenes, Total	140	U	140	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,1,1-Trichloroethane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,1,2-Trichloroethane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Cyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,2-Dibromo-3-Chloropropane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,2-Dibromoethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Dichlorodifluoromethane	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
cis-1,2-Dichloroethene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
trans-1,2-Dichloroethene	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Isopropylbenzene	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Methyl acetate	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Methyl tert-butyl ether	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,2,4-Trichlorobenzene	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,2-Dichlorobenzene	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,3-Dichlorobenzene	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
1,4-Dichlorobenzene	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Trichlorofluoromethane	90	U	90	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Dibromochloromethane	45	U	45	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1
Methylcyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 18:56	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		64 - 144	12/22/17 11:39	12/26/17 18:56	1
4-Bromofluorobenzene (Surr)	94		58 - 142	12/22/17 11:39	12/26/17 18:56	1
Toluene-d8 (Surr)	97		61 - 137	12/22/17 11:39	12/26/17 18:56	1
Dibromofluoromethane (Surr)	96		31 - 155	12/22/17 11:39	12/26/17 18:56	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	780	U	780	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Benzene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Bromomethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
2-Butanone (MEK)	780	U	780	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Carbon disulfide	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Carbon tetrachloride	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Chlorobenzene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Chloroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Chloroform	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Chloromethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,1-Dichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,2-Dichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,1-Dichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,2-Dichloropropane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
cis-1,3-Dichloropropene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
trans-1,3-Dichloropropene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Ethylbenzene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
2-Hexanone	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Methylene Chloride	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
4-Methyl-2-pentanone (MIBK)	2600	U	2600	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Styrene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,1,2,2-Tetrachloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Tetrachloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Trichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Vinyl chloride	41	U	41	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Xylenes, Total	160	U	160	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,1,1-Trichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,1,2-Trichloroethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,2-Dibromo-3-Chloropropane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,2-Dibromoethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
cis-1,2-Dichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
trans-1,2-Dichloroethene	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Isopropylbenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Methyl tert-butyl ether	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,2,4-Trichlorobenzene	260	U	260	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Dibromochloromethane	52	U	52	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 19:19	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 144	12/22/17 11:39	12/26/17 19:19	1
4-Bromofluorobenzene (Surr)	105		58 - 142	12/22/17 11:39	12/26/17 19:19	1
Toluene-d8 (Surr)	109		61 - 137	12/22/17 11:39	12/26/17 19:19	1
Dibromofluoromethane (Surr)	106		31 - 155	12/22/17 11:39	12/26/17 19:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	750	U	750	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Benzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Bromodichloromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Bromoform	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Bromomethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
2-Butanone (MEK)	750	U	750	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Carbon disulfide	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Carbon tetrachloride	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Chlorobenzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Chloroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Chloroform	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Chloromethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,1-Dichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,2-Dichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,1-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,2-Dichloropropane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
cis-1,3-Dichloropropene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
trans-1,3-Dichloropropene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Ethylbenzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
2-Hexanone	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Methylene Chloride	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Styrene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,1,2,2-Tetrachloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Tetrachloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Toluene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Trichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Vinyl chloride	40	U	40	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,1,1-Trichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,1,2-Trichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,2-Dibromo-3-Chloropropane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,2-Dibromoethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Dichlorodifluoromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
cis-1,2-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
trans-1,2-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Isopropylbenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Methyl tert-butyl ether	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,2,4-Trichlorobenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,2-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,3-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
1,4-Dichlorobenzene	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Trichlorofluoromethane	99	U	99	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Dibromochloromethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 19:42	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		64 - 144	12/22/17 11:39	12/26/17 19:42	1
4-Bromofluorobenzene (Surr)	92		58 - 142	12/22/17 11:39	12/26/17 19:42	1
Toluene-d8 (Surr)	99		61 - 137	12/22/17 11:39	12/26/17 19:42	1
Dibromofluoromethane (Surr)	100		31 - 155	12/22/17 11:39	12/26/17 19:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	830	U	830	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Benzene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Bromodichloromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Bromoform	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Bromomethane	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
2-Butanone (MEK)	830	U	830	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Carbon disulfide	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Carbon tetrachloride	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Chlorobenzene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Chloroethane	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Chloroform	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Chloromethane	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,1-Dichloroethane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,2-Dichloroethane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,1-Dichloroethene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,2-Dichloropropane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
cis-1,3-Dichloropropene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
trans-1,3-Dichloropropene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Ethylbenzene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
2-Hexanone	2800	U	2800	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Methylene Chloride	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
4-Methyl-2-pentanone (MIBK)	2800	U	2800	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Styrene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,1,2,2-Tetrachloroethane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Tetrachloroethene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Toluene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Trichloroethene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Vinyl chloride	44	U	44	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Xylenes, Total	170	U	170	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,1,1-Trichloroethane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,1,2-Trichloroethane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Cyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,2-Dibromo-3-Chloropropane	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,2-Dibromoethane	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Dichlorodifluoromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
cis-1,2-Dichloroethene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
trans-1,2-Dichloroethene	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Isopropylbenzene	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Methyl acetate	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Methyl tert-butyl ether	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,2,4-Trichlorobenzene	280	U	280	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,2-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,3-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
1,4-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Trichlorofluoromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Dibromochloromethane	55	U	55	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1
Methylcyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 20:04	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 144	12/22/17 11:39	12/26/17 20:04	1
4-Bromofluorobenzene (Surr)	100		58 - 142	12/22/17 11:39	12/26/17 20:04	1
Toluene-d8 (Surr)	107		61 - 137	12/22/17 11:39	12/26/17 20:04	1
Dibromofluoromethane (Surr)	89		31 - 155	12/22/17 11:39	12/26/17 20:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	720	U	720	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Benzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Bromodichloromethane	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Bromoform	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Bromomethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
2-Butanone (MEK)	720	U	720	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Carbon disulfide	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Carbon tetrachloride	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Chlorobenzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Chloroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Chloroform	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Chloromethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,1-Dichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,2-Dichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,1-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,2-Dichloropropane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
cis-1,3-Dichloropropene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
trans-1,3-Dichloropropene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Ethylbenzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
2-Hexanone	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Methylene Chloride	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
4-Methyl-2-pentanone (MIBK)	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Styrene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,1,2,2-Tetrachloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Tetrachloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Toluene	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Trichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Vinyl chloride	38	U	38	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Xylenes, Total	140	U	140	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,1,1-Trichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,1,2-Trichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Cyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,2-Dibromo-3-Chloropropane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,2-Dibromoethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Dichlorodifluoromethane	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
cis-1,2-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
trans-1,2-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Isopropylbenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Methyl acetate	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Methyl tert-butyl ether	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,2,4-Trichlorobenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,2-Dichlorobenzene	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,3-Dichlorobenzene	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
1,4-Dichlorobenzene	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Trichlorofluoromethane	95	U	95	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Dibromochloromethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1
Methylcyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:25	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		64 - 144	12/22/17 11:39	12/26/17 20:25	1
4-Bromofluorobenzene (Surr)	94		58 - 142	12/22/17 11:39	12/26/17 20:25	1
Toluene-d8 (Surr)	99		61 - 137	12/22/17 11:39	12/26/17 20:25	1
Dibromofluoromethane (Surr)	89		31 - 155	12/22/17 11:39	12/26/17 20:25	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	750	U	750	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Benzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Bromodichloromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Bromoform	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Bromomethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
2-Butanone (MEK)	750	U	750	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Carbon disulfide	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Carbon tetrachloride	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Chlorobenzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Chloroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Chloroform	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Chloromethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,1-Dichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,2-Dichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,1-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,2-Dichloropropane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
cis-1,3-Dichloropropene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
trans-1,3-Dichloropropene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Ethylbenzene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
2-Hexanone	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Methylene Chloride	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
4-Methyl-2-pentanone (MIBK)	2500	U	2500	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Styrene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,1,2,2-Tetrachloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Tetrachloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Toluene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Trichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Vinyl chloride	40	U	40	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,1,1-Trichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,1,2-Trichloroethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,2-Dibromo-3-Chloropropane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,2-Dibromoethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Dichlorodifluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
cis-1,2-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
trans-1,2-Dichloroethene	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Isopropylbenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Methyl tert-butyl ether	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,2,4-Trichlorobenzene	250	U	250	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,2-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,3-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
1,4-Dichlorobenzene	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Trichlorofluoromethane	100	U	100	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Dibromochloromethane	50	U	50	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/26/17 20:48	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		64 - 144	12/22/17 11:39	12/26/17 20:48	1
4-Bromofluorobenzene (Surr)	95		58 - 142	12/22/17 11:39	12/26/17 20:48	1
Toluene-d8 (Surr)	102		61 - 137	12/22/17 11:39	12/26/17 20:48	1
Dibromofluoromethane (Surr)	98		31 - 155	12/22/17 11:39	12/26/17 20:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	800	U	800	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Benzene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Bromodichloromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Bromoform	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Bromomethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
2-Butanone (MEK)	800	U	800	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Carbon disulfide	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Carbon tetrachloride	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Chlorobenzene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Chloroethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Chloroform	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Chloromethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,1-Dichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,2-Dichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,1-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,2-Dichloropropane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
cis-1,3-Dichloropropene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
trans-1,3-Dichloropropene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Ethylbenzene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
2-Hexanone	2700	U	2700	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Methylene Chloride	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
4-Methyl-2-pentanone (MIBK)	2700	U	2700	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Styrene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,1,2,2-Tetrachloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Tetrachloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Toluene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Trichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Vinyl chloride	43	U	43	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Xylenes, Total	160	U	160	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,1,1-Trichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,1,2-Trichloroethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Cyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,2-Dibromo-3-Chloropropane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,2-Dibromoethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Dichlorodifluoromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
cis-1,2-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
trans-1,2-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Isopropylbenzene	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Methyl acetate	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Methyl tert-butyl ether	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,2,4-Trichlorobenzene	270	U	270	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,2-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,3-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
1,4-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Trichlorofluoromethane	110	U	110	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Dibromochloromethane	54	U	54	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1
Methylcyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 11:39	12/26/17 21:18	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		64 - 144	12/22/17 11:39	12/26/17 21:18	1
4-Bromofluorobenzene (Surr)	91		58 - 142	12/22/17 11:39	12/26/17 21:18	1
Toluene-d8 (Surr)	96		61 - 137	12/22/17 11:39	12/26/17 21:18	1
Dibromofluoromethane (Surr)	94		31 - 155	12/22/17 11:39	12/26/17 21:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	680	U	680	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Benzene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Bromodichloromethane	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Bromoform	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Bromomethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
2-Butanone (MEK)	680	U	680	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Carbon disulfide	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Carbon tetrachloride	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Chlorobenzene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Chloroethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Chloroform	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Chloromethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,1-Dichloroethane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,2-Dichloroethane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,1-Dichloroethene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,2-Dichloropropane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
cis-1,3-Dichloropropene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
trans-1,3-Dichloropropene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Ethylbenzene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
2-Hexanone	2300	U	2300	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Methylene Chloride	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Styrene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,1,2,2-Tetrachloroethane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Tetrachloroethene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Toluene	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Trichloroethene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Vinyl chloride	37	U	37	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Xylenes, Total	140	U	140	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,1,1-Trichloroethane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,1,2-Trichloroethane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Cyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,2-Dibromo-3-Chloropropane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,2-Dibromoethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Dichlorodifluoromethane	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
cis-1,2-Dichloroethene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
trans-1,2-Dichloroethene	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Isopropylbenzene	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Methyl acetate	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Methyl tert-butyl ether	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,2,4-Trichlorobenzene	230	U	230	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,2-Dichlorobenzene	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,3-Dichlorobenzene	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
1,4-Dichlorobenzene	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Trichlorofluoromethane	91	U	91	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Dibromochloromethane	46	U	46	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1
Methylcyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 21:41	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		64 - 144	12/22/17 11:39	12/26/17 21:41	1
4-Bromofluorobenzene (Surr)	97		58 - 142	12/22/17 11:39	12/26/17 21:41	1
Toluene-d8 (Surr)	102		61 - 137	12/22/17 11:39	12/26/17 21:41	1
Dibromofluoromethane (Surr)	100		31 - 155	12/22/17 11:39	12/26/17 21:41	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	720	U	720	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Benzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Bromodichloromethane	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Bromoform	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Bromomethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
2-Butanone (MEK)	720	U	720	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Carbon disulfide	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Carbon tetrachloride	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Chlorobenzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Chloroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Chloroform	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Chloromethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,1-Dichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,2-Dichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,1-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,2-Dichloropropane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
cis-1,3-Dichloropropene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
trans-1,3-Dichloropropene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Ethylbenzene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
2-Hexanone	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Methylene Chloride	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
4-Methyl-2-pentanone (MIBK)	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Styrene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,1,2,2-Tetrachloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Tetrachloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Toluene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Trichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Vinyl chloride	38	U	38	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Xylenes, Total	140	U	140	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,1,1-Trichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,1,2-Trichloroethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Cyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,2-Dibromo-3-Chloropropane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,2-Dibromoethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Dichlorodifluoromethane	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
cis-1,2-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
trans-1,2-Dichloroethene	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Isopropylbenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Methyl acetate	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Methyl tert-butyl ether	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,2,4-Trichlorobenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,2-Dichlorobenzene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,3-Dichlorobenzene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
1,4-Dichlorobenzene	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Trichlorofluoromethane	96	U	96	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Dibromochloromethane	48	U	48	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1
Methylcyclohexane	1100	U	1100	ug/Kg	☼	12/22/17 11:39	12/26/17 22:03	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		64 - 144	12/22/17 11:39	12/26/17 22:03	1
4-Bromofluorobenzene (Surr)	94		58 - 142	12/22/17 11:39	12/26/17 22:03	1
Toluene-d8 (Surr)	98		61 - 137	12/22/17 11:39	12/26/17 22:03	1
Dibromofluoromethane (Surr)	92		31 - 155	12/22/17 11:39	12/26/17 22:03	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	730	U	730	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Benzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Bromodichloromethane	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Bromoform	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Bromomethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
2-Butanone (MEK)	730	U	730	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Carbon disulfide	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Carbon tetrachloride	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Chlorobenzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Chloroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Chloroform	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Chloromethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,1-Dichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,2-Dichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,1-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,2-Dichloropropane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
cis-1,3-Dichloropropene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
trans-1,3-Dichloropropene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Ethylbenzene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
2-Hexanone	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Methylene Chloride	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
4-Methyl-2-pentanone (MIBK)	2400	U	2400	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Styrene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,1,2,2-Tetrachloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Tetrachloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Toluene	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Trichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Vinyl chloride	39	U	39	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Xylenes, Total	150	U	150	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,1,1-Trichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,1,2-Trichloroethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Cyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,2-Dibromo-3-Chloropropane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,2-Dibromoethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Dichlorodifluoromethane	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
cis-1,2-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
trans-1,2-Dichloroethene	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Isopropylbenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Methyl acetate	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Methyl tert-butyl ether	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,2,4-Trichlorobenzene	240	U	240	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,2-Dichlorobenzene	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,3-Dichlorobenzene	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
1,4-Dichlorobenzene	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Trichlorofluoromethane	97	U	97	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Dibromochloromethane	49	U	49	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1
Methylcyclohexane	1200	U	1200	ug/Kg	☼	12/22/17 11:39	12/28/17 11:22	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 144	12/22/17 11:39	12/28/17 11:22	1
4-Bromofluorobenzene (Surr)	97		58 - 142	12/22/17 11:39	12/28/17 11:22	1
Toluene-d8 (Surr)	102		61 - 137	12/22/17 11:39	12/28/17 11:22	1
Dibromofluoromethane (Surr)	75		31 - 155	12/22/17 11:39	12/28/17 11:22	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	810	U	810	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Benzene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Bromodichloromethane	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Bromoform	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Bromomethane	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
2-Butanone (MEK)	810	U	810	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Carbon disulfide	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Carbon tetrachloride	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Chlorobenzene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Chloroethane	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Chloroform	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Chloromethane	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,1-Dichloroethane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,2-Dichloroethane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,1-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,2-Dichloropropane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
cis-1,3-Dichloropropene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
trans-1,3-Dichloropropene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Ethylbenzene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
2-Hexanone	2700	U	2700	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Methylene Chloride	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
4-Methyl-2-pentanone (MIBK)	2700	U	2700	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Styrene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,1,2,2-Tetrachloroethane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Tetrachloroethene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Toluene	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Trichloroethene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Vinyl chloride	43	U	43	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Xylenes, Total	160	U	160	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,1,1-Trichloroethane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,1,2-Trichloroethane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Cyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,2-Dibromo-3-Chloropropane	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,2-Dibromoethane	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Dichlorodifluoromethane	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
cis-1,2-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
trans-1,2-Dichloroethene	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Isopropylbenzene	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Methyl acetate	1300	U	1300	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Methyl tert-butyl ether	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,2,4-Trichlorobenzene	270	U	270	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,2-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,3-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
1,4-Dichlorobenzene	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Trichlorofluoromethane	110	U	110	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Dibromochloromethane	54	U	54	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1
Methylcyclohexane	1300	U	1300	ug/Kg	☼	12/22/17 12:01	12/28/17 11:45	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		64 - 144	12/22/17 12:01	12/28/17 11:45	1
4-Bromofluorobenzene (Surr)	92		58 - 142	12/22/17 12:01	12/28/17 11:45	1
Toluene-d8 (Surr)	97		61 - 137	12/22/17 12:01	12/28/17 11:45	1
Dibromofluoromethane (Surr)	99		31 - 155	12/22/17 12:01	12/28/17 11:45	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	700	U	700	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Benzene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Bromodichloromethane	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Bromoform	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Bromomethane	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
2-Butanone (MEK)	700	U *	700	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Carbon disulfide	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Carbon tetrachloride	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Chlorobenzene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Chloroethane	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Chloroform	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Chloromethane	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,1-Dichloroethane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,2-Dichloroethane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,1-Dichloroethene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,2-Dichloropropane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
cis-1,3-Dichloropropene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
trans-1,3-Dichloropropene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Ethylbenzene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
2-Hexanone	2300	U	2300	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Methylene Chloride	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
4-Methyl-2-pentanone (MIBK)	2300	U	2300	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Styrene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,1,2,2-Tetrachloroethane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Tetrachloroethene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Toluene	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Trichloroethene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Vinyl chloride	37	U	37	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Xylenes, Total	140	U	140	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,1,1-Trichloroethane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,1,2-Trichloroethane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Cyclohexane	1100	U	1100	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,2-Dibromo-3-Chloropropane	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,2-Dibromoethane	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Dichlorodifluoromethane	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
cis-1,2-Dichloroethene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
trans-1,2-Dichloroethene	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Isopropylbenzene	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Methyl acetate	1100	U	1100	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Methyl tert-butyl ether	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,2,4-Trichlorobenzene	230	U	230	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,2-Dichlorobenzene	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,3-Dichlorobenzene	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
1,4-Dichlorobenzene	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Trichlorofluoromethane	93	U	93	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Dibromochloromethane	47	U	47	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1
Methylcyclohexane	1100	U	1100	ug/Kg	☼	12/23/17 09:35	12/28/17 12:55	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 144	12/23/17 09:35	12/28/17 12:55	1
4-Bromofluorobenzene (Surr)	99		58 - 142	12/23/17 09:35	12/28/17 12:55	1
Toluene-d8 (Surr)	103		61 - 137	12/23/17 09:35	12/28/17 12:55	1
Dibromofluoromethane (Surr)	107		31 - 155	12/23/17 09:35	12/28/17 12:55	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
4-Nitrophenol	380	U	380	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Acenaphthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Acetophenone	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Anthracene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Atrazine	46	U	46	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Bis(2-chloroethyl)ether	91	U	91	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Caprolactam	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Carbazole	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Chrysene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Fluoranthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Hexachlorobutadiene	46	U	46	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Isophorone	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Naphthalene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Phenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Phenanthrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
Pyrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	91		32 - 120	12/28/17 09:41	01/02/18 18:58	1
2-Fluorophenol (Surr)	78		29 - 120	12/28/17 09:41	01/02/18 18:58	1
2,4,6-Tribromophenol (Surr)	60		10 - 120	12/28/17 09:41	01/02/18 18:58	1
Nitrobenzene-d5 (Surr)	72		30 - 120	12/28/17 09:41	01/02/18 18:58	1
Phenol-d5 (Surr)	86		29 - 120	12/28/17 09:41	01/02/18 18:58	1
Terphenyl-d14 (Surr)	105		41 - 120	12/28/17 09:41	01/02/18 18:58	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,2'-oxybis[1-chloropropane]	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,4,5-Trichlorophenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,4,6-Trichlorophenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,4-Dichlorophenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,4-Dimethylphenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,4-Dinitrophenol	180	U	180	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,4-Dinitrotoluene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2,6-Dinitrotoluene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2-Chloronaphthalene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2-Chlorophenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2-Methylnaphthalene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2-Methylphenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2-Nitroaniline	240	U	240	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
2-Nitrophenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
3,3'-Dichlorobenzidine	1900	U	1900	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
3-Nitroaniline	240	U	240	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4,6-Dinitro-2-methylphenol	180	U	180	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4-Bromophenyl phenyl ether	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4-Chloro-3-methylphenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4-Chloroaniline	240	U	240	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4-Chlorophenyl phenyl ether	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4-Nitroaniline	240	U	240	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
4-Nitrophenol	400	U	400	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Acenaphthene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Acenaphthylene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Acetophenone	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Anthracene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Atrazine	48	U	48	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Benzaldehyde	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Benzo[a]anthracene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Benzo[a]pyrene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Benzo[b]fluoranthene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Benzo[g,h,i]perylene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Benzo[k]fluoranthene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Bis(2-chloroethoxy)methane	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Bis(2-chloroethyl)ether	96	U	96	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Bis(2-ethylhexyl) phthalate	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Butyl benzyl phthalate	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Caprolactam	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Carbazole	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Chrysene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Dibenz(a,h)anthracene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Dibenzofuran	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Diethyl phthalate	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Dimethyl phthalate	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Di-n-butyl phthalate	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Di-n-octyl phthalate	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Fluoranthene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Hexachlorobenzene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Hexachlorobutadiene	48	U	48	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Hexachlorocyclopentadiene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Hexachloroethane	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Indeno[1,2,3-cd]pyrene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Isophorone	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Naphthalene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Nitrobenzene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
N-Nitrosodi-n-propylamine	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
N-Nitrosodiphenylamine	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Pentachlorophenol	180	U	180	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Phenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Phenanthrene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
Pyrene	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1
3 & 4 Methylphenol	320	U	320	ug/Kg	☼	12/28/17 09:41	01/02/18 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	95		32 - 120	12/28/17 09:41	01/02/18 18:34	1
2-Fluorophenol (Surr)	76		29 - 120	12/28/17 09:41	01/02/18 18:34	1
2,4,6-Tribromophenol (Surr)	74		10 - 120	12/28/17 09:41	01/02/18 18:34	1
Nitrobenzene-d5 (Surr)	72		30 - 120	12/28/17 09:41	01/02/18 18:34	1
Phenol-d5 (Surr)	85		29 - 120	12/28/17 09:41	01/02/18 18:34	1
Terphenyl-d14 (Surr)	111		41 - 120	12/28/17 09:41	01/02/18 18:34	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,2'-oxybis[1-chloropropane]	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,4,5-Trichlorophenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,4,6-Trichlorophenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,4-Dichlorophenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,4-Dimethylphenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,4-Dinitrotoluene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2,6-Dinitrotoluene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2-Chloronaphthalene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2-Chlorophenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2-Methylnaphthalene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2-Methylphenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
2-Nitrophenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4-Bromophenyl phenyl ether	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4-Chloro-3-methylphenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4-Chlorophenyl phenyl ether	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Acenaphthene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Acenaphthylene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Acetophenone	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Anthracene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Atrazine	45	U	45	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Benzaldehyde	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Benzo[a]anthracene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Benzo[a]pyrene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Benzo[b]fluoranthene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Benzo[g,h,i]perylene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Benzo[k]fluoranthene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Bis(2-chloroethoxy)methane	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Bis(2-chloroethyl)ether	89	U	89	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Bis(2-ethylhexyl) phthalate	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Butyl benzyl phthalate	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Caprolactam	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Carbazole	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Chrysene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Dibenz(a,h)anthracene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Dibenzofuran	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Diethyl phthalate	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Dimethyl phthalate	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Di-n-butyl phthalate	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Di-n-octyl phthalate	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Fluoranthene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Hexachlorobenzene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Hexachlorocyclopentadiene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Hexachloroethane	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Indeno[1,2,3-cd]pyrene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Isophorone	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Naphthalene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Nitrobenzene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
N-Nitrosodi-n-propylamine	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
N-Nitrosodiphenylamine	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Phenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Phenanthrene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
Pyrene	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1
3 & 4 Methylphenol	290	U	290	ug/Kg	☼	12/28/17 09:41	01/02/18 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	87		32 - 120	12/28/17 09:41	01/02/18 18:10	1
2-Fluorophenol (Surr)	75		29 - 120	12/28/17 09:41	01/02/18 18:10	1
2,4,6-Tribromophenol (Surr)	51		10 - 120	12/28/17 09:41	01/02/18 18:10	1
Nitrobenzene-d5 (Surr)	70		30 - 120	12/28/17 09:41	01/02/18 18:10	1
Phenol-d5 (Surr)	79		29 - 120	12/28/17 09:41	01/02/18 18:10	1
Terphenyl-d14 (Surr)	99		41 - 120	12/28/17 09:41	01/02/18 18:10	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Acenaphthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Acetophenone	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Anthracene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Atrazine	45	U	45	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Bis(2-chloroethyl)ether	90	U	90	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Bis(2-ethylhexyl) phthalate	300	U F1	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Caprolactam	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Carbazole	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Chrysene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Fluoranthene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Hexachlorocyclopentadiene	300	U F2 F1	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Isophorone	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Naphthalene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Phenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Phenanthrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
Pyrene	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/28/17 09:41	01/02/18 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		32 - 120	12/28/17 09:41	01/02/18 16:59	1
2-Fluorophenol (Surr)	71		29 - 120	12/28/17 09:41	01/02/18 16:59	1
2,4,6-Tribromophenol (Surr)	52		10 - 120	12/28/17 09:41	01/02/18 16:59	1
Nitrobenzene-d5 (Surr)	67		30 - 120	12/28/17 09:41	01/02/18 16:59	1
Phenol-d5 (Surr)	80		29 - 120	12/28/17 09:41	01/02/18 16:59	1
Terphenyl-d14 (Surr)	98		41 - 120	12/28/17 09:41	01/02/18 16:59	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,2'-oxybis[1-chloropropane]	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,4,5-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,4,6-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,4-Dichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,4-Dimethylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,4-Dinitrophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,4-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2,6-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2-Chloronaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2-Chlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2-Methylnaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2-Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
2-Nitrophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4,6-Dinitro-2-methylphenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4-Bromophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4-Chloro-3-methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4-Chlorophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
4-Nitrophenol	360	U	360	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Acenaphthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Acenaphthylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Acetophenone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Atrazine	44	U *	44	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Benzaldehyde	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Benzo[a]anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Benzo[a]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Benzo[b]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Benzo[g,h,i]perylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Benzo[k]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Bis(2-chloroethoxy)methane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Bis(2-chloroethyl)ether	88	U	88	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Bis(2-ethylhexyl) phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Butyl benzyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Caprolactam	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Carbazole	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Chrysene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Dibenz(a,h)anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Dibenzofuran	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Diethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Dimethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Di-n-butyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Di-n-octyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Hexachlorobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Hexachlorobutadiene	44	U	44	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Hexachlorocyclopentadiene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Hexachloroethane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Indeno[1,2,3-cd]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Isophorone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Naphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Nitrobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
N-Nitrosodi-n-propylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
N-Nitrosodiphenylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Pentachlorophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Phenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Phenanthrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
Pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1
3 & 4 Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		32 - 120	12/29/17 10:29	01/04/18 14:51	1
2-Fluorophenol (Surr)	72		29 - 120	12/29/17 10:29	01/04/18 14:51	1
2,4,6-Tribromophenol (Surr)	75		10 - 120	12/29/17 10:29	01/04/18 14:51	1
Nitrobenzene-d5 (Surr)	66		30 - 120	12/29/17 10:29	01/04/18 14:51	1
Phenol-d5 (Surr)	73		29 - 120	12/29/17 10:29	01/04/18 14:51	1
Terphenyl-d14 (Surr)	98		41 - 120	12/29/17 10:29	01/04/18 14:51	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
4-Nitrophenol	380	U	380	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Atrazine	46	U *	46	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Bis(2-chloroethyl)ether	92	U	92	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Hexachlorobutadiene	46	U	46	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		32 - 120	12/29/17 10:29	01/04/18 15:38	1
2-Fluorophenol (Surr)	64		29 - 120	12/29/17 10:29	01/04/18 15:38	1
2,4,6-Tribromophenol (Surr)	80		10 - 120	12/29/17 10:29	01/04/18 15:38	1
Nitrobenzene-d5 (Surr)	58		30 - 120	12/29/17 10:29	01/04/18 15:38	1
Phenol-d5 (Surr)	70		29 - 120	12/29/17 10:29	01/04/18 15:38	1
Terphenyl-d14 (Surr)	101		41 - 120	12/29/17 10:29	01/04/18 15:38	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Bis(2-chloroethyl)ether	90	U	90	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		32 - 120	12/29/17 10:29	01/04/18 15:15	1
2-Fluorophenol (Surr)	68		29 - 120	12/29/17 10:29	01/04/18 15:15	1
2,4,6-Tribromophenol (Surr)	58		10 - 120	12/29/17 10:29	01/04/18 15:15	1
Nitrobenzene-d5 (Surr)	60		30 - 120	12/29/17 10:29	01/04/18 15:15	1
Phenol-d5 (Surr)	69		29 - 120	12/29/17 10:29	01/04/18 15:15	1
Terphenyl-d14 (Surr)	101		41 - 120	12/29/17 10:29	01/04/18 15:15	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,2'-oxybis[1-chloropropane]	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,4,5-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,4,6-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,4-Dichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,4-Dimethylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,4-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2,6-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2-Chloronaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2-Chlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2-Methylnaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2-Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
2-Nitrophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4-Bromophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4-Chloro-3-methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4-Chlorophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Acenaphthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Acenaphthylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Acetophenone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Benzaldehyde	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Benzo[a]anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Benzo[a]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Benzo[b]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Benzo[g,h,i]perylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Benzo[k]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Bis(2-chloroethoxy)methane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Bis(2-chloroethyl)ether	89	U	89	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Bis(2-ethylhexyl) phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Butyl benzyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Caprolactam	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Carbazole	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Chrysene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Dibenz(a,h)anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Dibenzofuran	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Diethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Dimethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Di-n-butyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Di-n-octyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Hexachlorobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Hexachlorocyclopentadiene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Hexachloroethane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Indeno[1,2,3-cd]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Isophorone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Naphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Nitrobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
N-Nitrosodi-n-propylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
N-Nitrosodiphenylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Phenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Phenanthrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
Pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1
3 & 4 Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		32 - 120	12/29/17 10:29	01/04/18 18:48	1
2-Fluorophenol (Surr)	67		29 - 120	12/29/17 10:29	01/04/18 18:48	1
2,4,6-Tribromophenol (Surr)	56		10 - 120	12/29/17 10:29	01/04/18 18:48	1
Nitrobenzene-d5 (Surr)	59		30 - 120	12/29/17 10:29	01/04/18 18:48	1
Phenol-d5 (Surr)	69		29 - 120	12/29/17 10:29	01/04/18 18:48	1
Terphenyl-d14 (Surr)	94		41 - 120	12/29/17 10:29	01/04/18 18:48	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,2'-oxybis[1-chloropropane]	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,4,5-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,4,6-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,4-Dichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,4-Dimethylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,4-Dinitrophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,4-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2,6-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2-Chloronaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2-Chlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2-Methylnaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2-Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
2-Nitrophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4,6-Dinitro-2-methylphenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4-Bromophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4-Chloro-3-methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4-Chlorophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
4-Nitrophenol	360	U	360	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Acenaphthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Acenaphthylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Acetophenone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Atrazine	44	U *	44	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Benzaldehyde	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Benzo[a]anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Benzo[a]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Benzo[b]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Benzo[g,h,i]perylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Benzo[k]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Bis(2-chloroethoxy)methane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Bis(2-chloroethyl)ether	88	U	88	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Bis(2-ethylhexyl) phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Butyl benzyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Caprolactam	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Carbazole	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Chrysene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Dibenz(a,h)anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Dibenzofuran	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Diethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Dimethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Di-n-butyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Di-n-octyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Hexachlorobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Hexachlorobutadiene	44	U	44	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Hexachlorocyclopentadiene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Hexachloroethane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Indeno[1,2,3-cd]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Isophorone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Naphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Nitrobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
N-Nitrosodi-n-propylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
N-Nitrosodiphenylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Pentachlorophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Phenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Phenanthrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
Pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1
3 & 4 Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	79		32 - 120	12/29/17 10:29	01/04/18 16:02	1
2-Fluorophenol (Surr)	64		29 - 120	12/29/17 10:29	01/04/18 16:02	1
2,4,6-Tribromophenol (Surr)	54		10 - 120	12/29/17 10:29	01/04/18 16:02	1
Nitrobenzene-d5 (Surr)	58		30 - 120	12/29/17 10:29	01/04/18 16:02	1
Phenol-d5 (Surr)	67		29 - 120	12/29/17 10:29	01/04/18 16:02	1
Terphenyl-d14 (Surr)	99		41 - 120	12/29/17 10:29	01/04/18 16:02	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,2'-oxybis[1-chloropropane]	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,4,5-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,4,6-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,4-Dichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,4-Dimethylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,4-Dinitrophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,4-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2,6-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2-Chloronaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2-Chlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2-Methylnaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2-Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
2-Nitrophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
3,3'-Dichlorobenzidine	1700	U	1700	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4,6-Dinitro-2-methylphenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4-Bromophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4-Chloro-3-methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4-Chlorophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
4-Nitrophenol	360	U	360	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Acenaphthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Acenaphthylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Acetophenone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Atrazine	44	U *	44	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Benzaldehyde	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Benzo[a]anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Benzo[a]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Benzo[b]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Benzo[g,h,i]perylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Benzo[k]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Bis(2-chloroethoxy)methane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Bis(2-chloroethyl)ether	87	U	87	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Bis(2-ethylhexyl) phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Butyl benzyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Caprolactam	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Carbazole	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Chrysene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Dibenz(a,h)anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Dibenzofuran	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Diethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Dimethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Di-n-butyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Di-n-octyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Hexachlorobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Hexachlorobutadiene	44	U	44	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Hexachlorocyclopentadiene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Hexachloroethane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Indeno[1,2,3-cd]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Isophorone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Naphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Nitrobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
N-Nitrosodi-n-propylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
N-Nitrosodiphenylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Pentachlorophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Phenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Phenanthrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
Pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1
3 & 4 Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/04/18 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		32 - 120	12/29/17 10:29	01/04/18 16:26	1
2-Fluorophenol (Surr)	67		29 - 120	12/29/17 10:29	01/04/18 16:26	1
2,4,6-Tribromophenol (Surr)	51		10 - 120	12/29/17 10:29	01/04/18 16:26	1
Nitrobenzene-d5 (Surr)	62		30 - 120	12/29/17 10:29	01/04/18 16:26	1
Phenol-d5 (Surr)	69		29 - 120	12/29/17 10:29	01/04/18 16:26	1
Terphenyl-d14 (Surr)	91		41 - 120	12/29/17 10:29	01/04/18 16:26	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,2'-oxybis[1-chloropropane]	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,4,5-Trichlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,4,6-Trichlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,4-Dichlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,4-Dimethylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,4-Dinitrophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,4-Dinitrotoluene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2,6-Dinitrotoluene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2-Chloronaphthalene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2-Chlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2-Methylnaphthalene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2-Methylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
2-Nitrophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
3,3'-Dichlorobenzidine	1900	U	1900	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
3-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4,6-Dinitro-2-methylphenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4-Bromophenyl phenyl ether	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4-Chloro-3-methylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4-Chloroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4-Chlorophenyl phenyl ether	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
4-Nitrophenol	390	U	390	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Acenaphthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Acenaphthylene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Acetophenone	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Anthracene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Atrazine	47	U *	47	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Benzaldehyde	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Benzo[a]anthracene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Benzo[a]pyrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Benzo[b]fluoranthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Benzo[g,h,i]perylene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Benzo[k]fluoranthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Bis(2-chloroethoxy)methane	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Bis(2-chloroethyl)ether	94	U	94	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Bis(2-ethylhexyl) phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Butyl benzyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Caprolactam	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Carbazole	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Chrysene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Dibenz(a,h)anthracene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Dibenzofuran	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Diethyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Dimethyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Di-n-butyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Di-n-octyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Fluoranthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Hexachlorobenzene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Hexachlorobutadiene	47	U	47	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Hexachlorocyclopentadiene	310	U F1	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Hexachloroethane	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Indeno[1,2,3-cd]pyrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Isophorone	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Naphthalene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Nitrobenzene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
N-Nitrosodi-n-propylamine	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
N-Nitrosodiphenylamine	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Pentachlorophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Phenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Phenanthrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
Pyrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1
3 & 4 Methylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/04/18 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		32 - 120	12/29/17 10:29	01/04/18 16:49	1
2-Fluorophenol (Surr)	59		29 - 120	12/29/17 10:29	01/04/18 16:49	1
2,4,6-Tribromophenol (Surr)	63		10 - 120	12/29/17 10:29	01/04/18 16:49	1
Nitrobenzene-d5 (Surr)	55		30 - 120	12/29/17 10:29	01/04/18 16:49	1
Phenol-d5 (Surr)	61		29 - 120	12/29/17 10:29	01/04/18 16:49	1
Terphenyl-d14 (Surr)	86		41 - 120	12/29/17 10:29	01/04/18 16:49	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Bis(2-chloroethyl)ether	91	U	91	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/02/18 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	85		32 - 120	12/29/17 10:29	01/02/18 14:55	1
2-Fluorophenol (Surr)	75		29 - 120	12/29/17 10:29	01/02/18 14:55	1
2,4,6-Tribromophenol (Surr)	66		10 - 120	12/29/17 10:29	01/02/18 14:55	1
Nitrobenzene-d5 (Surr)	71		30 - 120	12/29/17 10:29	01/02/18 14:55	1
Phenol-d5 (Surr)	76		29 - 120	12/29/17 10:29	01/02/18 14:55	1
Terphenyl-d14 (Surr)	104		41 - 120	12/29/17 10:29	01/02/18 14:55	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,2'-oxybis[1-chloropropane]	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,4,5-Trichlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,4,6-Trichlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,4-Dichlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,4-Dimethylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,4-Dinitrophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,4-Dinitrotoluene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2,6-Dinitrotoluene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2-Chloronaphthalene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2-Chlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2-Methylnaphthalene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2-Methylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
2-Nitrophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
3,3'-Dichlorobenzidine	1900	U	1900	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
3-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4,6-Dinitro-2-methylphenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4-Bromophenyl phenyl ether	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4-Chloro-3-methylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4-Chloroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4-Chlorophenyl phenyl ether	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
4-Nitrophenol	400	U	400	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Acenaphthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Acenaphthylene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Acetophenone	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Anthracene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Atrazine	48	U *	48	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Benzaldehyde	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Benzo[a]anthracene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Benzo[a]pyrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Benzo[b]fluoranthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Benzo[g,h,i]perylene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Benzo[k]fluoranthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Bis(2-chloroethoxy)methane	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Bis(2-chloroethyl)ether	97	U	97	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Bis(2-ethylhexyl) phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Butyl benzyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Caprolactam	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Carbazole	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Chrysene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Dibenz(a,h)anthracene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Dibenzofuran	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Diethyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Dimethyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Di-n-butyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Di-n-octyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Fluoranthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Hexachlorobenzene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Hexachlorobutadiene	48	U	48	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Hexachlorocyclopentadiene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Hexachloroethane	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Indeno[1,2,3-cd]pyrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Isophorone	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Naphthalene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Nitrobenzene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
N-Nitrosodi-n-propylamine	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
N-Nitrosodiphenylamine	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Pentachlorophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Phenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Phenanthrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
Pyrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1
3 & 4 Methylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/04/18 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		32 - 120	12/29/17 10:29	01/04/18 18:24	1
2-Fluorophenol (Surr)	69		29 - 120	12/29/17 10:29	01/04/18 18:24	1
2,4,6-Tribromophenol (Surr)	56		10 - 120	12/29/17 10:29	01/04/18 18:24	1
Nitrobenzene-d5 (Surr)	61		30 - 120	12/29/17 10:29	01/04/18 18:24	1
Phenol-d5 (Surr)	72		29 - 120	12/29/17 10:29	01/04/18 18:24	1
Terphenyl-d14 (Surr)	96		41 - 120	12/29/17 10:29	01/04/18 18:24	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Bis(2-chloroethyl)ether	91	U	91	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		32 - 120	12/29/17 10:29	01/03/18 12:17	1
2-Fluorophenol (Surr)	80		29 - 120	12/29/17 10:29	01/03/18 12:17	1
2,4,6-Tribromophenol (Surr)	56		10 - 120	12/29/17 10:29	01/03/18 12:17	1
Nitrobenzene-d5 (Surr)	72		30 - 120	12/29/17 10:29	01/03/18 12:17	1
Phenol-d5 (Surr)	82		29 - 120	12/29/17 10:29	01/03/18 12:17	1
Terphenyl-d14 (Surr)	110		41 - 120	12/29/17 10:29	01/03/18 12:17	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Bis(2-chloroethyl)ether	90	U	90	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		32 - 120	12/29/17 10:29	01/04/18 18:00	1
2-Fluorophenol (Surr)	55		29 - 120	12/29/17 10:29	01/04/18 18:00	1
2,4,6-Tribromophenol (Surr)	56		10 - 120	12/29/17 10:29	01/04/18 18:00	1
Nitrobenzene-d5 (Surr)	48		30 - 120	12/29/17 10:29	01/04/18 18:00	1
Phenol-d5 (Surr)	59		29 - 120	12/29/17 10:29	01/04/18 18:00	1
Terphenyl-d14 (Surr)	82		41 - 120	12/29/17 10:29	01/04/18 18:00	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,2'-oxybis[1-chloropropane]	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,4,5-Trichlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,4,6-Trichlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,4-Dichlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,4-Dimethylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,4-Dinitrophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,4-Dinitrotoluene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2,6-Dinitrotoluene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2-Chloronaphthalene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2-Chlorophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2-Methylnaphthalene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2-Methylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
2-Nitrophenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
3,3'-Dichlorobenzidine	1900	U	1900	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4,6-Dinitro-2-methylphenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4-Bromophenyl phenyl ether	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4-Chloro-3-methylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4-Chlorophenyl phenyl ether	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
4-Nitrophenol	390	U	390	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Acenaphthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Acenaphthylene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Acetophenone	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Anthracene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Atrazine	47	U *	47	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Benzaldehyde	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Benzo[a]anthracene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Benzo[a]pyrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Benzo[b]fluoranthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Benzo[g,h,i]perylene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Benzo[k]fluoranthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Bis(2-chloroethoxy)methane	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Bis(2-chloroethyl)ether	94	U	94	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Bis(2-ethylhexyl) phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Butyl benzyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Caprolactam	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Carbazole	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Chrysene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Dibenz(a,h)anthracene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Dibenzofuran	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Diethyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Dimethyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Di-n-butyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Di-n-octyl phthalate	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Fluoranthene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Hexachlorobenzene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Hexachlorobutadiene	47	U	47	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Hexachlorocyclopentadiene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Hexachloroethane	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Indeno[1,2,3-cd]pyrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Isophorone	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Naphthalene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Nitrobenzene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
N-Nitrosodi-n-propylamine	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
N-Nitrosodiphenylamine	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Pentachlorophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Phenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Phenanthrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
Pyrene	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1
3 & 4 Methylphenol	310	U	310	ug/Kg	☼	12/29/17 10:29	01/02/18 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	91		32 - 120	12/29/17 10:29	01/02/18 15:43	1
2-Fluorophenol (Surr)	78		29 - 120	12/29/17 10:29	01/02/18 15:43	1
2,4,6-Tribromophenol (Surr)	60		10 - 120	12/29/17 10:29	01/02/18 15:43	1
Nitrobenzene-d5 (Surr)	73		30 - 120	12/29/17 10:29	01/02/18 15:43	1
Phenol-d5 (Surr)	81		29 - 120	12/29/17 10:29	01/02/18 15:43	1
Terphenyl-d14 (Surr)	107		41 - 120	12/29/17 10:29	01/02/18 15:43	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,2'-oxybis[1-chloropropane]	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,4,5-Trichlorophenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,4,6-Trichlorophenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,4-Dichlorophenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,4-Dimethylphenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,4-Dinitrophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,4-Dinitrotoluene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2,6-Dinitrotoluene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2-Chloronaphthalene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2-Chlorophenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2-Methylnaphthalene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2-Methylphenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2-Nitroaniline	210	U	210	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
2-Nitrophenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
3,3'-Dichlorobenzidine	1700	U	1700	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
3-Nitroaniline	210	U	210	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4,6-Dinitro-2-methylphenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4-Bromophenyl phenyl ether	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4-Chloro-3-methylphenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4-Chloroaniline	210	U	210	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4-Chlorophenyl phenyl ether	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4-Nitroaniline	210	U	210	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
4-Nitrophenol	350	U	350	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Acenaphthene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Acenaphthylene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Acetophenone	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Anthracene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Atrazine	42	U *	42	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Benzaldehyde	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Benzo[a]anthracene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Benzo[a]pyrene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Benzo[b]fluoranthene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Benzo[g,h,i]perylene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Benzo[k]fluoranthene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Bis(2-chloroethoxy)methane	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Bis(2-chloroethyl)ether	84	U	84	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Bis(2-ethylhexyl) phthalate	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Butyl benzyl phthalate	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Caprolactam	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Carbazole	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Chrysene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Dibenz(a,h)anthracene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Dibenzofuran	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Diethyl phthalate	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Dimethyl phthalate	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Di-n-butyl phthalate	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Di-n-octyl phthalate	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Fluoranthene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Hexachlorobenzene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Hexachlorobutadiene	42	U	42	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Hexachlorocyclopentadiene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Hexachloroethane	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Indeno[1,2,3-cd]pyrene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Isophorone	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Naphthalene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Nitrobenzene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
N-Nitrosodi-n-propylamine	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
N-Nitrosodiphenylamine	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Pentachlorophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Phenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Phenanthrene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
Pyrene	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1
3 & 4 Methylphenol	280	U	280	ug/Kg	☼	12/29/17 10:29	01/02/18 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		32 - 120	12/29/17 10:29	01/02/18 15:19	1
2-Fluorophenol (Surr)	77		29 - 120	12/29/17 10:29	01/02/18 15:19	1
2,4,6-Tribromophenol (Surr)	63		10 - 120	12/29/17 10:29	01/02/18 15:19	1
Nitrobenzene-d5 (Surr)	72		30 - 120	12/29/17 10:29	01/02/18 15:19	1
Phenol-d5 (Surr)	78		29 - 120	12/29/17 10:29	01/02/18 15:19	1
Terphenyl-d14 (Surr)	109		41 - 120	12/29/17 10:29	01/02/18 15:19	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Bis(2-chloroethyl)ether	89	U	89	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/04/18 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		32 - 120	12/29/17 10:29	01/04/18 19:11	1
2-Fluorophenol (Surr)	57		29 - 120	12/29/17 10:29	01/04/18 19:11	1
2,4,6-Tribromophenol (Surr)	41		10 - 120	12/29/17 10:29	01/04/18 19:11	1
Nitrobenzene-d5 (Surr)	52		30 - 120	12/29/17 10:29	01/04/18 19:11	1
Phenol-d5 (Surr)	59		29 - 120	12/29/17 10:29	01/04/18 19:11	1
Terphenyl-d14 (Surr)	87		41 - 120	12/29/17 10:29	01/04/18 19:11	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,2'-oxybis[1-chloropropane]	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,4,5-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,4,6-Trichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,4-Dichlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,4-Dimethylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,4-Dinitrophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,4-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2,6-Dinitrotoluene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2-Chloronaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2-Chlorophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2-Methylnaphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2-Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
2-Nitrophenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
3,3'-Dichlorobenzidine	1700	U	1700	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
3-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4,6-Dinitro-2-methylphenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4-Bromophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4-Chloro-3-methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4-Chloroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4-Chlorophenyl phenyl ether	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4-Nitroaniline	220	U	220	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
4-Nitrophenol	360	U	360	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Acenaphthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Acenaphthylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Acetophenone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Atrazine	44	U *	44	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Benzaldehyde	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Benzo[a]anthracene	320		290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Benzo[a]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Benzo[b]fluoranthene	430		290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Benzo[g,h,i]perylene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Benzo[k]fluoranthene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Bis(2-chloroethoxy)methane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Bis(2-chloroethyl)ether	87	U	87	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Bis(2-ethylhexyl) phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Butyl benzyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Caprolactam	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Carbazole	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Chrysene	310		290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Dibenz(a,h)anthracene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Dibenzofuran	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Diethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Dimethyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Di-n-butyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Di-n-octyl phthalate	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Fluoranthene	870		290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Hexachlorobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Hexachlorobutadiene	44	U	44	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Hexachlorocyclopentadiene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Hexachloroethane	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Indeno[1,2,3-cd]pyrene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Isophorone	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Naphthalene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Nitrobenzene	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
N-Nitrosodi-n-propylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
N-Nitrosodiphenylamine	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Pentachlorophenol	160	U	160	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Phenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Phenanthrene	550		290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
Pyrene	760		290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1
3 & 4 Methylphenol	290	U	290	ug/Kg	☼	12/29/17 10:29	01/03/18 11:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	91		32 - 120	12/29/17 10:29	01/03/18 11:06	1
2-Fluorophenol (Surr)	79		29 - 120	12/29/17 10:29	01/03/18 11:06	1
2,4,6-Tribromophenol (Surr)	54		10 - 120	12/29/17 10:29	01/03/18 11:06	1
Nitrobenzene-d5 (Surr)	71		30 - 120	12/29/17 10:29	01/03/18 11:06	1
Phenol-d5 (Surr)	81		29 - 120	12/29/17 10:29	01/03/18 11:06	1
Terphenyl-d14 (Surr)	108		41 - 120	12/29/17 10:29	01/03/18 11:06	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,2'-oxybis[1-chloropropane]	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,4,5-Trichlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,4,6-Trichlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,4-Dichlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,4-Dimethylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,4-Dinitrophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,4-Dinitrotoluene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2,6-Dinitrotoluene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2-Chloronaphthalene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2-Chlorophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2-Methylnaphthalene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2-Methylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
2-Nitrophenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
3,3'-Dichlorobenzidine	1900	U	1900	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
3-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4,6-Dinitro-2-methylphenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4-Bromophenyl phenyl ether	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4-Chloro-3-methylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4-Chloroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4-Chlorophenyl phenyl ether	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4-Nitroaniline	240	U	240	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
4-Nitrophenol	390	U	390	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Acenaphthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Acenaphthylene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Acetophenone	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Anthracene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Atrazine	48	U *	48	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Benzaldehyde	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Benzo[a]anthracene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Benzo[a]pyrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Benzo[b]fluoranthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Benzo[g,h,i]perylene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Benzo[k]fluoranthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Bis(2-chloroethoxy)methane	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Bis(2-chloroethyl)ether	95	U	95	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Bis(2-ethylhexyl) phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Butyl benzyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Caprolactam	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Carbazole	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Chrysene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Dibenz(a,h)anthracene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Dibenzofuran	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Diethyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Dimethyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Di-n-butyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Di-n-octyl phthalate	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Fluoranthene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Hexachlorobenzene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Hexachlorobutadiene	48	U	48	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Hexachlorocyclopentadiene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Hexachloroethane	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Indeno[1,2,3-cd]pyrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Isophorone	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Naphthalene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Nitrobenzene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
N-Nitrosodi-n-propylamine	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
N-Nitrosodiphenylamine	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Pentachlorophenol	180	U	180	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Phenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Phenanthrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
Pyrene	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1
3 & 4 Methylphenol	320	U	320	ug/Kg	☼	12/29/17 10:29	01/03/18 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	95		32 - 120	12/29/17 10:29	01/03/18 10:43	1
2-Fluorophenol (Surr)	82		29 - 120	12/29/17 10:29	01/03/18 10:43	1
2,4,6-Tribromophenol (Surr)	82		10 - 120	12/29/17 10:29	01/03/18 10:43	1
Nitrobenzene-d5 (Surr)	74		30 - 120	12/29/17 10:29	01/03/18 10:43	1
Phenol-d5 (Surr)	86		29 - 120	12/29/17 10:29	01/03/18 10:43	1
Terphenyl-d14 (Surr)	111		41 - 120	12/29/17 10:29	01/03/18 10:43	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,2'-oxybis[1-chloropropane]	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,4,5-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,4,6-Trichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,4-Dichlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,4-Dimethylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,4-Dinitrophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,4-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2,6-Dinitrotoluene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2-Chloronaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2-Chlorophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2-Methylnaphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2-Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
2-Nitrophenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
3,3'-Dichlorobenzidine	1800	U	1800	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
3-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4,6-Dinitro-2-methylphenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4-Bromophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4-Chloro-3-methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4-Chloroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4-Chlorophenyl phenyl ether	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4-Nitroaniline	230	U	230	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
4-Nitrophenol	370	U	370	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Acenaphthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Acenaphthylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Acetophenone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Atrazine	45	U *	45	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Benzaldehyde	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Benzo[a]anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Benzo[a]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Benzo[b]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Benzo[g,h,i]perylene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Benzo[k]fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Bis(2-chloroethoxy)methane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Bis(2-chloroethyl)ether	90	U	90	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Bis(2-ethylhexyl) phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Butyl benzyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Caprolactam	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Carbazole	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Chrysene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Dibenz(a,h)anthracene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Dibenzofuran	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Diethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Dimethyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Di-n-butyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Di-n-octyl phthalate	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Fluoranthene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Hexachlorobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Hexachlorobutadiene	45	U	45	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Hexachlorocyclopentadiene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Hexachloroethane	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Indeno[1,2,3-cd]pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Isophorone	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Naphthalene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Nitrobenzene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
N-Nitrosodi-n-propylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
N-Nitrosodiphenylamine	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Pentachlorophenol	170	U	170	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Phenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Phenanthrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
Pyrene	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1
3 & 4 Methylphenol	300	U	300	ug/Kg	☼	12/29/17 10:29	01/03/18 10:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	98		32 - 120	12/29/17 10:29	01/03/18 10:19	1
2-Fluorophenol (Surr)	84		29 - 120	12/29/17 10:29	01/03/18 10:19	1
2,4,6-Tribromophenol (Surr)	96		10 - 120	12/29/17 10:29	01/03/18 10:19	1
Nitrobenzene-d5 (Surr)	79		30 - 120	12/29/17 10:29	01/03/18 10:19	1
Phenol-d5 (Surr)	88		29 - 120	12/29/17 10:29	01/03/18 10:19	1
Terphenyl-d14 (Surr)	119		41 - 120	12/29/17 10:29	01/03/18 10:19	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
4,4'-DDE	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
4,4'-DDT	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Aldrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
alpha-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
alpha-Chlordane	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
beta-BHC	5.9	U *	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
delta-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Dieldrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Endosulfan I	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Endosulfan II	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Endosulfan sulfate	5.9	U *	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Endrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Endrin aldehyde	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Endrin ketone	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
gamma-BHC (Lindane)	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
gamma-Chlordane	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Heptachlor	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Heptachlor epoxide	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Toxaphene	120	U	120	ug/Kg	☼	12/28/17 12:15	01/02/18 11:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	72		13 - 135			12/28/17 12:15	01/02/18 11:31	1
Tetrachloro-m-xylene	74		30 - 120			12/28/17 12:15	01/02/18 11:31	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
4,4'-DDE	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
4,4'-DDT	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Aldrin	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
alpha-BHC	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
alpha-Chlordane	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
beta-BHC	6.2	U *	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
delta-BHC	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Dieldrin	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Endosulfan I	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Endosulfan II	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Endosulfan sulfate	6.2	U *	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Endrin	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Endrin aldehyde	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Endrin ketone	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
gamma-BHC (Lindane)	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
gamma-Chlordane	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Heptachlor	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Heptachlor epoxide	6.2	U	6.2	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Methoxychlor	12	U	12	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1
Toxaphene	120	U	120	ug/Kg	☼	12/28/17 12:15	01/02/18 11:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	69		13 - 135	12/28/17 12:15	01/02/18 11:43	1
Tetrachloro-m-xylene	74		30 - 120	12/28/17 12:15	01/02/18 11:43	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
4,4'-DDE	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
4,4'-DDT	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Aldrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
alpha-BHC	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
alpha-Chlordane	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
beta-BHC	5.8	U *	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
delta-BHC	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Dieldrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Endosulfan I	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Endosulfan II	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Endosulfan sulfate	5.8	U *	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Endrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Endrin aldehyde	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Endrin ketone	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
gamma-BHC (Lindane)	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
gamma-Chlordane	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Heptachlor	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Heptachlor epoxide	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 11:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		13 - 135	12/28/17 12:15	01/02/18 11:56	1
Tetrachloro-m-xylene	75		30 - 120	12/28/17 12:15	01/02/18 11:56	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
4,4'-DDE	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
4,4'-DDT	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Aldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
alpha-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
alpha-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
beta-BHC	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
delta-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Dieldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Endosulfan I	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Endosulfan II	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Endosulfan sulfate	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Endrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Endrin aldehyde	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Endrin ketone	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
gamma-BHC (Lindane)	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
gamma-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Heptachlor	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Heptachlor epoxide	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		13 - 135	12/28/17 12:15	01/02/18 12:08	1
Tetrachloro-m-xylene	83		30 - 120	12/28/17 12:15	01/02/18 12:08	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
4,4'-DDE	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
4,4'-DDT	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Aldrin	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
alpha-BHC	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
alpha-Chlordane	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
beta-BHC	29	U *	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
delta-BHC	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Dieldrin	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Endosulfan I	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Endosulfan II	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Endosulfan sulfate	29	U *	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Endrin	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Endrin aldehyde	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Endrin ketone	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
gamma-BHC (Lindane)	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
gamma-Chlordane	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Heptachlor	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Heptachlor epoxide	29	U	29	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Methoxychlor	56	U	56	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5
Toxaphene	560	U	560	ug/Kg	☼	12/28/17 12:15	01/02/18 12:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	116		13 - 135	12/28/17 12:15	01/02/18 12:21	5
Tetrachloro-m-xylene	126	X	30 - 120	12/28/17 12:15	01/02/18 12:21	5

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
4,4'-DDE	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
4,4'-DDT	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Aldrin	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
alpha-BHC	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
alpha-Chlordane	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
beta-BHC	5.7	U *	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
delta-BHC	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Dieldrin	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Endosulfan I	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Endosulfan II	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Endosulfan sulfate	5.7	U *	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Endrin	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Endrin aldehyde	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Endrin ketone	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
gamma-BHC (Lindane)	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
gamma-Chlordane	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Heptachlor	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Heptachlor epoxide	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		13 - 135	12/28/17 12:15	01/02/18 12:33	1
Tetrachloro-m-xylene	73		30 - 120	12/28/17 12:15	01/02/18 12:33	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
4,4'-DDE	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
4,4'-DDT	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Aldrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
alpha-BHC	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
alpha-Chlordane	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
beta-BHC	5.8	U *	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
delta-BHC	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Dieldrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Endosulfan I	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Endosulfan II	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Endosulfan sulfate	5.8	U *	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Endrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Endrin aldehyde	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Endrin ketone	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
gamma-BHC (Lindane)	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
gamma-Chlordane	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Heptachlor	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Heptachlor epoxide	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		13 - 135	12/28/17 12:15	01/02/18 12:46	1
Tetrachloro-m-xylene	74		30 - 120	12/28/17 12:15	01/02/18 12:46	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
4,4'-DDE	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
4,4'-DDT	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Aldrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
alpha-BHC	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
alpha-Chlordane	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
beta-BHC	5.8	U *	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
delta-BHC	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Dieldrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Endosulfan I	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Endosulfan II	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Endosulfan sulfate	5.8	U *	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Endrin	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Endrin aldehyde	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Endrin ketone	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
gamma-BHC (Lindane)	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
gamma-Chlordane	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Heptachlor	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Heptachlor epoxide	5.8	U	5.8	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		13 - 135	12/28/17 12:15	01/02/18 12:58	1
Tetrachloro-m-xylene	70		30 - 120	12/28/17 12:15	01/02/18 12:58	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
4,4'-DDE	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
4,4'-DDT	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Aldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
alpha-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
alpha-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
beta-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
delta-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Dieldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Endosulfan I	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Endosulfan II	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Endosulfan sulfate	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Endrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Endrin aldehyde	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Endrin ketone	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
gamma-BHC (Lindane)	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
gamma-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Heptachlor	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Heptachlor epoxide	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		13 - 135	12/28/17 12:15	01/02/18 13:11	1
Tetrachloro-m-xylene	80		30 - 120	12/28/17 12:15	01/02/18 13:11	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
4,4'-DDE	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
4,4'-DDT	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Aldrin	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
alpha-BHC	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
alpha-Chlordane	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
beta-BHC	5.5	U *	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
delta-BHC	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Dieldrin	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Endosulfan I	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Endosulfan II	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Endosulfan sulfate	5.5	U *	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Endrin	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Endrin aldehyde	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Endrin ketone	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
gamma-BHC (Lindane)	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
gamma-Chlordane	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Heptachlor	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Heptachlor epoxide	5.5	U	5.5	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		13 - 135	12/28/17 12:15	01/02/18 13:23	1
Tetrachloro-m-xylene	73		30 - 120	12/28/17 12:15	01/02/18 13:23	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
4,4'-DDE	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
4,4'-DDT	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Aldrin	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
alpha-BHC	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
alpha-Chlordane	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
beta-BHC	30	U *	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
delta-BHC	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Dieldrin	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Endosulfan I	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Endosulfan II	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Endosulfan sulfate	30	U *	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Endrin	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Endrin aldehyde	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Endrin ketone	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
gamma-BHC (Lindane)	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
gamma-Chlordane	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Heptachlor	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Heptachlor epoxide	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Methoxychlor	58	U	58	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5
Toxaphene	580	U	580	ug/Kg	☼	12/28/17 12:15	01/02/18 13:36	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		13 - 135	12/28/17 12:15	01/02/18 13:36	5
Tetrachloro-m-xylene	79		30 - 120	12/28/17 12:15	01/02/18 13:36	5

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
4,4'-DDE	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
4,4'-DDT	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Aldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
alpha-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
alpha-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
beta-BHC	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
delta-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Dieldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Endosulfan I	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Endosulfan II	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Endosulfan sulfate	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Endrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Endrin aldehyde	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Endrin ketone	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
gamma-BHC (Lindane)	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
gamma-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Heptachlor	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Heptachlor epoxide	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	69		13 - 135	12/28/17 12:15	01/02/18 13:48	1
Tetrachloro-m-xylene	82		30 - 120	12/28/17 12:15	01/02/18 13:48	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
4,4'-DDE	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
4,4'-DDT	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Aldrin	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
alpha-BHC	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
alpha-Chlordane	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
beta-BHC	6.1	U *	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
delta-BHC	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Dieldrin	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Endosulfan I	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Endosulfan II	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Endosulfan sulfate	6.1	U *	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Endrin	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Endrin aldehyde	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Endrin ketone	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
gamma-BHC (Lindane)	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
gamma-Chlordane	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Heptachlor	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Heptachlor epoxide	6.1	U	6.1	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Methoxychlor	12	U	12	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1
Toxaphene	120	U	120	ug/Kg	☼	12/28/17 12:15	01/02/18 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	58		13 - 135	12/28/17 12:15	01/02/18 14:01	1
Tetrachloro-m-xylene	58		30 - 120	12/28/17 12:15	01/02/18 14:01	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
4,4'-DDE	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
4,4'-DDT	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Aldrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
alpha-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
alpha-Chlordane	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
beta-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
delta-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Dieldrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Endosulfan I	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Endosulfan II	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Endosulfan sulfate	5.9	U *	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Endrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Endrin aldehyde	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Endrin ketone	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
gamma-BHC (Lindane)	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
gamma-Chlordane	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Heptachlor	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Heptachlor epoxide	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 14:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		13 - 135	12/28/17 12:15	01/02/18 14:13	1
Tetrachloro-m-xylene	76		30 - 120	12/28/17 12:15	01/02/18 14:13	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
4,4'-DDE	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
4,4'-DDT	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Aldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
alpha-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
alpha-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
beta-BHC	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
delta-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Dieldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Endosulfan I	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Endosulfan II	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Endosulfan sulfate	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Endrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Endrin aldehyde	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Endrin ketone	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
gamma-BHC (Lindane)	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
gamma-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Heptachlor	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Heptachlor epoxide	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		13 - 135	12/28/17 12:15	01/02/18 14:26	1
Tetrachloro-m-xylene	69		30 - 120	12/28/17 12:15	01/02/18 14:26	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
4,4'-DDE	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
4,4'-DDT	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Aldrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
alpha-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
alpha-Chlordane	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
beta-BHC	5.9	U *	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
delta-BHC	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Dieldrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Endosulfan I	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Endosulfan II	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Endosulfan sulfate	5.9	U *	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Endrin	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Endrin aldehyde	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Endrin ketone	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
gamma-BHC (Lindane)	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
gamma-Chlordane	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Heptachlor	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Heptachlor epoxide	5.9	U	5.9	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1
Toxaphene	120	U	120	ug/Kg	☼	12/28/17 12:15	01/02/18 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		13 - 135	12/28/17 12:15	01/02/18 14:38	1
Tetrachloro-m-xylene	79		30 - 120	12/28/17 12:15	01/02/18 14:38	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
4,4'-DDE	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
4,4'-DDT	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Aldrin	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
alpha-BHC	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
alpha-Chlordane	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
beta-BHC	5.3	U *	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
delta-BHC	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Dieldrin	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Endosulfan I	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Endosulfan II	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Endosulfan sulfate	5.3	U *	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Endrin	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Endrin aldehyde	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Endrin ketone	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
gamma-BHC (Lindane)	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
gamma-Chlordane	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Heptachlor	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Heptachlor epoxide	5.3	U	5.3	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Methoxychlor	10	U	10	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1
Toxaphene	100	U	100	ug/Kg	☼	12/28/17 12:15	01/02/18 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		13 - 135	12/28/17 12:15	01/02/18 14:51	1
Tetrachloro-m-xylene	76		30 - 120	12/28/17 12:15	01/02/18 14:51	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
4,4'-DDE	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
4,4'-DDT	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Aldrin	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
alpha-BHC	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
alpha-Chlordane	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
beta-BHC	5.7	U *	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
delta-BHC	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Dieldrin	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Endosulfan I	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Endosulfan II	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Endosulfan sulfate	5.7	U *	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Endrin	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Endrin aldehyde	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Endrin ketone	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
gamma-BHC (Lindane)	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
gamma-Chlordane	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Heptachlor	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Heptachlor epoxide	5.7	U	5.7	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	66		13 - 135	12/28/17 12:15	01/02/18 15:03	1
Tetrachloro-m-xylene	63		30 - 120	12/28/17 12:15	01/02/18 15:03	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
4,4'-DDE	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
4,4'-DDT	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Aldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
alpha-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
alpha-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
beta-BHC	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
delta-BHC	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Dieldrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Endosulfan I	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Endosulfan II	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Endosulfan sulfate	5.6	U *	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Endrin	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Endrin aldehyde	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Endrin ketone	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
gamma-BHC (Lindane)	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
gamma-Chlordane	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Heptachlor	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Heptachlor epoxide	5.6	U	5.6	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Methoxychlor	11	U	11	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1
Toxaphene	110	U	110	ug/Kg	☼	12/28/17 12:15	01/02/18 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		13 - 135	12/28/17 12:15	01/02/18 18:02	1
Tetrachloro-m-xylene	90		30 - 120	12/28/17 12:15	01/02/18 18:02	1

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
4,4'-DDE	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
4,4'-DDT	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Aldrin	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
alpha-BHC	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
alpha-Chlordane	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
beta-BHC	30	U *	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
delta-BHC	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Dieldrin	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Endosulfan I	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Endosulfan II	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Endosulfan sulfate	30	U *	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Endrin	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Endrin aldehyde	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Endrin ketone	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
gamma-BHC (Lindane)	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
gamma-Chlordane	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Heptachlor	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Heptachlor epoxide	30	U	30	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Methoxychlor	58	U	58	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5
Toxaphene	590	U	590	ug/Kg	☼	12/28/17 12:15	01/02/18 18:15	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	126		13 - 135	12/28/17 12:15	01/02/18 18:15	5
Tetrachloro-m-xylene	122	X	30 - 120	12/28/17 12:15	01/02/18 18:15	5

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
4,4'-DDE	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
4,4'-DDT	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Aldrin	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
alpha-BHC	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
alpha-Chlordane	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
beta-BHC	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
delta-BHC	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Dieldrin	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Endosulfan I	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Endosulfan II	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Endosulfan sulfate	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Endrin	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Endrin aldehyde	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Endrin ketone	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
gamma-BHC (Lindane)	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
gamma-Chlordane	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Heptachlor	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Heptachlor epoxide	28	U	28	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Methoxychlor	55	U	55	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Toxaphene	560	U	560	ug/Kg	☼	12/29/17 10:04	01/02/18 19:18	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	130		13 - 135			12/29/17 10:04	01/02/18 19:18	5
Tetrachloro-m-xylene	88		30 - 120			12/29/17 10:04	01/02/18 19:18	5

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1
Aroclor-1221	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1
Aroclor-1232	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1
Aroclor-1242	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1
Aroclor-1248	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1
Aroclor-1254	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1
Aroclor-1260	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 12:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	124		14 - 128	12/21/17 09:03	12/22/17 12:04	1
DCB Decachlorobiphenyl	143	X	10 - 132	12/21/17 09:03	12/22/17 12:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1
Aroclor-1221	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1
Aroclor-1232	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1
Aroclor-1242	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1
Aroclor-1248	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1
Aroclor-1254	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1
Aroclor-1260	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		14 - 128	12/21/17 09:03	12/22/17 12:24	1
DCB Decachlorobiphenyl	112		10 - 132	12/21/17 09:03	12/22/17 12:24	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1
Aroclor-1221	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1
Aroclor-1232	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1
Aroclor-1242	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1
Aroclor-1248	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1
Aroclor-1254	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1
Aroclor-1260	57	U	57	ug/Kg	☼	12/21/17 09:03	12/22/17 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		14 - 128	12/21/17 09:03	12/22/17 12:44	1
DCB Decachlorobiphenyl	113		10 - 132	12/21/17 09:03	12/22/17 12:44	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1
Aroclor-1221	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1
Aroclor-1232	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1
Aroclor-1242	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1
Aroclor-1248	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1
Aroclor-1254	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1
Aroclor-1260	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		14 - 128	12/21/17 09:03	12/22/17 13:04	1
DCB Decachlorobiphenyl	108		10 - 132	12/21/17 09:03	12/22/17 13:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1
Aroclor-1221	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1
Aroclor-1232	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1
Aroclor-1242	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1
Aroclor-1248	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1
Aroclor-1254	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1
Aroclor-1260	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 13:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		14 - 128	12/21/17 09:03	12/22/17 13:24	1
DCB Decachlorobiphenyl	95		10 - 132	12/21/17 09:03	12/22/17 13:24	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1
Aroclor-1221	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1
Aroclor-1232	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1
Aroclor-1242	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1
Aroclor-1248	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1
Aroclor-1254	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1
Aroclor-1260	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 13:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		14 - 128	12/21/17 09:03	12/22/17 13:43	1
DCB Decachlorobiphenyl	96		10 - 132	12/21/17 09:03	12/22/17 13:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1
Aroclor-1221	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1
Aroclor-1232	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1
Aroclor-1242	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1
Aroclor-1248	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1
Aroclor-1254	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1
Aroclor-1260	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		14 - 128	12/21/17 09:03	12/22/17 14:03	1
DCB Decachlorobiphenyl	93		10 - 132	12/21/17 09:03	12/22/17 14:03	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Aroclor-1221	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Aroclor-1232	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Aroclor-1242	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Aroclor-1248	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Aroclor-1254	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Aroclor-1260	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 14:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	106		14 - 128			12/21/17 09:03	12/22/17 14:23	1
DCB Decachlorobiphenyl	102		10 - 132			12/21/17 09:03	12/22/17 14:23	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1
Aroclor-1221	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1
Aroclor-1232	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1
Aroclor-1242	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1
Aroclor-1248	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1
Aroclor-1254	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1
Aroclor-1260	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		14 - 128	12/21/17 09:03	12/22/17 14:42	1
DCB Decachlorobiphenyl	97		10 - 132	12/21/17 09:03	12/22/17 14:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1
Aroclor-1221	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1
Aroclor-1232	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1
Aroclor-1242	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1
Aroclor-1248	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1
Aroclor-1254	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1
Aroclor-1260	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	109		14 - 128	12/21/17 09:03	12/22/17 15:02	1
DCB Decachlorobiphenyl	115		10 - 132	12/21/17 09:03	12/22/17 15:02	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1
Aroclor-1221	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1
Aroclor-1232	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1
Aroclor-1242	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1
Aroclor-1248	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1
Aroclor-1254	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1
Aroclor-1260	59	U	59	ug/Kg	☼	12/21/17 09:03	12/22/17 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		14 - 128	12/21/17 09:03	12/22/17 15:21	1
DCB Decachlorobiphenyl	104		10 - 132	12/21/17 09:03	12/22/17 15:21	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1
Aroclor-1221	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1
Aroclor-1232	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1
Aroclor-1242	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1
Aroclor-1248	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1
Aroclor-1254	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1
Aroclor-1260	54	U	54	ug/Kg	☼	12/21/17 09:03	12/22/17 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		14 - 128	12/21/17 09:03	12/22/17 16:20	1
DCB Decachlorobiphenyl	87		10 - 132	12/21/17 09:03	12/22/17 16:20	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1
Aroclor-1221	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1
Aroclor-1232	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1
Aroclor-1242	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1
Aroclor-1248	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1
Aroclor-1254	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1
Aroclor-1260	60	U	60	ug/Kg	☼	12/21/17 09:03	12/22/17 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		14 - 128	12/21/17 09:03	12/22/17 16:40	1
DCB Decachlorobiphenyl	100		10 - 132	12/21/17 09:03	12/22/17 16:40	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1
Aroclor-1221	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1
Aroclor-1232	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1
Aroclor-1242	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1
Aroclor-1248	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1
Aroclor-1254	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1
Aroclor-1260	55	U	55	ug/Kg	☼	12/21/17 09:03	12/22/17 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		14 - 128	12/21/17 09:03	12/22/17 17:00	1
DCB Decachlorobiphenyl	88		10 - 132	12/21/17 09:03	12/22/17 17:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1
Aroclor-1221	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1
Aroclor-1232	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1
Aroclor-1242	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1
Aroclor-1248	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1
Aroclor-1254	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1
Aroclor-1260	56	U	56	ug/Kg	☼	12/21/17 09:03	12/22/17 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		14 - 128	12/21/17 09:03	12/22/17 17:19	1
DCB Decachlorobiphenyl	96		10 - 132	12/21/17 09:03	12/22/17 17:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1
Aroclor-1221	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1
Aroclor-1232	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1
Aroclor-1242	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1
Aroclor-1248	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1
Aroclor-1254	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1
Aroclor-1260	58	U	58	ug/Kg	☼	12/28/17 12:57	12/30/17 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		14 - 128	12/28/17 12:57	12/30/17 17:13	1
DCB Decachlorobiphenyl	75		10 - 132	12/28/17 12:57	12/30/17 17:13	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1
Aroclor-1221	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1
Aroclor-1232	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1
Aroclor-1242	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1
Aroclor-1248	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1
Aroclor-1254	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1
Aroclor-1260	53	U	53	ug/Kg	☼	12/28/17 12:57	12/30/17 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		14 - 128	12/28/17 12:57	12/30/17 17:32	1
DCB Decachlorobiphenyl	82		10 - 132	12/28/17 12:57	12/30/17 17:32	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1
Aroclor-1221	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1
Aroclor-1232	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1
Aroclor-1242	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1
Aroclor-1248	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1
Aroclor-1254	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1
Aroclor-1260	55	U	55	ug/Kg	☼	12/28/17 12:57	12/30/17 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		14 - 128	12/28/17 12:57	12/30/17 17:51	1
DCB Decachlorobiphenyl	71		10 - 132	12/28/17 12:57	12/30/17 17:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1
Aroclor-1221	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1
Aroclor-1232	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1
Aroclor-1242	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1
Aroclor-1248	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1
Aroclor-1254	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1
Aroclor-1260	55	U	55	ug/Kg	☼	12/29/17 09:08	01/02/18 23:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		14 - 128	12/29/17 09:08	01/02/18 23:54	1
DCB Decachlorobiphenyl	91		10 - 132	12/29/17 09:08	01/02/18 23:54	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1
Aroclor-1221	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1
Aroclor-1232	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1
Aroclor-1242	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1
Aroclor-1248	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1
Aroclor-1254	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1
Aroclor-1260	59	U	59	ug/Kg	☼	12/29/17 09:08	01/03/18 00:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		14 - 128	12/29/17 09:08	01/03/18 00:16	1
DCB Decachlorobiphenyl	87		10 - 132	12/29/17 09:08	01/03/18 00:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1
Aroclor-1221	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1
Aroclor-1232	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1
Aroclor-1242	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1
Aroclor-1248	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1
Aroclor-1254	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1
Aroclor-1260	57	U	57	ug/Kg	☼	12/29/17 09:08	01/03/18 09:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		14 - 128	12/29/17 09:08	01/03/18 09:59	1
DCB Decachlorobiphenyl	113		10 - 132	12/29/17 09:08	01/03/18 09:59	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.7	U	7.7	ug/Kg	☼	12/29/17 12:54	01/02/18 23:13	1
2,4,5-T	7.7	U	7.7	ug/Kg	☼	12/29/17 12:54	01/02/18 23:13	1
Silvex (2,4,5-TP)	7.7	U	7.7	ug/Kg	☼	12/29/17 12:54	01/02/18 23:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	36		22 - 130			12/29/17 12:54	01/02/18 23:13	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	10	U	10	ug/Kg	☼	12/29/17 12:54	01/02/18 23:37	1
2,4,5-T	10	U	10	ug/Kg	☼	12/29/17 12:54	01/02/18 23:37	1
Silvex (2,4,5-TP)	10	U	10	ug/Kg	☼	12/29/17 12:54	01/02/18 23:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	32		22 - 130			12/29/17 12:54	01/02/18 23:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.5	U	7.5	ug/Kg	☼	12/29/17 12:54	01/03/18 00:01	1
2,4,5-T	7.5	U	7.5	ug/Kg	☼	12/29/17 12:54	01/03/18 00:01	1
Silvex (2,4,5-TP)	7.5	U	7.5	ug/Kg	☼	12/29/17 12:54	01/03/18 00:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	92		22 - 130			12/29/17 12:54	01/03/18 00:01	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 00:26	1
2,4,5-T	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 00:26	1
Silvex (2,4,5-TP)	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 00:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	93		22 - 130			12/29/17 12:54	01/03/18 00:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	9.6	U	9.6	ug/Kg	☼	12/29/17 12:54	01/03/18 00:50	1
2,4,5-T	9.6	U	9.6	ug/Kg	☼	12/29/17 12:54	01/03/18 00:50	1
Silvex (2,4,5-TP)	9.6	U	9.6	ug/Kg	☼	12/29/17 12:54	01/03/18 00:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	91		22 - 130			12/29/17 12:54	01/03/18 00:50	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 01:14	1
2,4,5-T	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 01:14	1
Silvex (2,4,5-TP)	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 01:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	37		22 - 130			12/29/17 12:54	01/03/18 01:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	17	U	17	ug/Kg	☼	12/29/17 12:54	01/03/18 01:39	1
2,4,5-T	17	U	17	ug/Kg	☼	12/29/17 12:54	01/03/18 01:39	1
Silvex (2,4,5-TP)	17	U	17	ug/Kg	☼	12/29/17 12:54	01/03/18 01:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	63		22 - 130			12/29/17 12:54	01/03/18 01:39	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	38	U	38	ug/Kg	☼	12/29/17 12:54	01/03/18 02:03	5
2,4,5-T	38	U	38	ug/Kg	☼	12/29/17 12:54	01/03/18 02:03	5
Silvex (2,4,5-TP)	38	U	38	ug/Kg	☼	12/29/17 12:54	01/03/18 02:03	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		22 - 130			12/29/17 12:54	01/03/18 02:03	5

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.3	U	7.3	ug/Kg	☼	12/29/17 12:54	01/03/18 02:27	1
2,4,5-T	7.3	U	7.3	ug/Kg	☼	12/29/17 12:54	01/03/18 02:27	1
Silvex (2,4,5-TP)	7.3	U	7.3	ug/Kg	☼	12/29/17 12:54	01/03/18 02:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	289	X	22 - 130			12/29/17 12:54	01/03/18 02:27	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	14	U	14	ug/Kg	☼	12/29/17 12:54	01/03/18 02:52	1
2,4,5-T	14	U	14	ug/Kg	☼	12/29/17 12:54	01/03/18 02:52	1
Silvex (2,4,5-TP)	14	U	14	ug/Kg	☼	12/29/17 12:54	01/03/18 02:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	112		22 - 130			12/29/17 12:54	01/03/18 02:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.8	U	7.8	ug/Kg	☼	12/29/17 12:54	01/03/18 03:40	1
2,4,5-T	7.8	U	7.8	ug/Kg	☼	12/29/17 12:54	01/03/18 03:40	1
Silvex (2,4,5-TP)	7.8	U	7.8	ug/Kg	☼	12/29/17 12:54	01/03/18 03:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	137	X	22 - 130			12/29/17 12:54	01/03/18 03:40	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 04:05	1
2,4,5-T	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 04:05	1
Silvex (2,4,5-TP)	13	U	13	ug/Kg	☼	12/29/17 12:54	01/03/18 04:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	305	X	22 - 130			12/29/17 12:54	01/03/18 04:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 04:29	5
2,4,5-T	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 04:29	5
Silvex (2,4,5-TP)	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 04:29	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	85		22 - 130			12/29/17 12:54	01/03/18 04:29	5

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	12	U	12	ug/Kg	☼	12/29/17 12:54	01/03/18 04:54	1
2,4,5-T	12	U	12	ug/Kg	☼	12/29/17 12:54	01/03/18 04:54	1
Silvex (2,4,5-TP)	12	U	12	ug/Kg	☼	12/29/17 12:54	01/03/18 04:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	92		22 - 130			12/29/17 12:54	01/03/18 04:54	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	61	U	61	ug/Kg	☼	12/29/17 12:54	01/03/18 05:18	5
2,4,5-T	61	U	61	ug/Kg	☼	12/29/17 12:54	01/03/18 05:18	5
Silvex (2,4,5-TP)	61	U	61	ug/Kg	☼	12/29/17 12:54	01/03/18 05:18	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	81		22 - 130			12/29/17 12:54	01/03/18 05:18	5

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	8.3	U	8.3	ug/Kg	☼	12/29/17 12:54	01/03/18 05:42	1
2,4,5-T	8.3	U	8.3	ug/Kg	☼	12/29/17 12:54	01/03/18 05:42	1
Silvex (2,4,5-TP)	8.3	U	8.3	ug/Kg	☼	12/29/17 12:54	01/03/18 05:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	109		22 - 130			12/29/17 12:54	01/03/18 05:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	8.3	U	8.3	ug/Kg	☼	12/29/17 12:54	01/03/18 06:07	1
2,4,5-T	8.3	U	8.3	ug/Kg	☼	12/29/17 12:54	01/03/18 06:07	1
Silvex (2,4,5-TP)	8.3	U	8.3	ug/Kg	☼	12/29/17 12:54	01/03/18 06:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	59		22 - 130			12/29/17 12:54	01/03/18 06:07	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 06:31	5
2,4,5-T	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 06:31	5
Silvex (2,4,5-TP)	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 06:31	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		22 - 130			12/29/17 12:54	01/03/18 06:31	5

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	61	U	61	ug/Kg	☼	12/29/17 12:54	01/03/18 06:55	1
2,4,5-T	61	U	61	ug/Kg	☼	12/29/17 12:54	01/03/18 06:55	1
Silvex (2,4,5-TP)	61	U	61	ug/Kg	☼	12/29/17 12:54	01/03/18 06:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	138	X	22 - 130			12/29/17 12:54	01/03/18 06:55	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 07:20	5
2,4,5-T	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 07:20	5
Silvex (2,4,5-TP)	39	U	39	ug/Kg	☼	12/29/17 12:54	01/03/18 07:20	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	147	X	22 - 130			12/29/17 12:54	01/03/18 07:20	5

TestAmerica Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	7.6	U	7.6	ug/Kg	☼	12/29/17 14:30	01/02/18 21:11	1
2,4,5-T	7.6	U	7.6	ug/Kg	☼	12/29/17 14:30	01/02/18 21:11	1
Silvex (2,4,5-TP)	7.6	U	7.6	ug/Kg	☼	12/29/17 14:30	01/02/18 21:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	105		22 - 130			12/29/17 14:30	01/02/18 21:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	24		0.74	mg/Kg	☼	12/20/17 14:00	12/21/17 18:23	1
Cadmium	0.10		0.074	mg/Kg	☼	12/20/17 14:00	12/21/17 18:23	1
Chromium	8.5		0.74	mg/Kg	☼	12/20/17 14:00	12/21/17 18:23	1
Copper	6.9		0.74	mg/Kg	☼	12/20/17 14:00	12/21/17 18:23	1
Zinc	23		1.8	mg/Kg	☼	12/20/17 14:00	12/21/17 18:23	1
Lead	16		0.22	mg/Kg	☼	12/20/17 14:00	12/21/17 18:23	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	63		0.72	mg/Kg	☼	12/20/17 14:00	12/21/17 18:28	1
Cadmium	0.25		0.072	mg/Kg	☼	12/20/17 14:00	12/21/17 18:28	1
Chromium	22		0.72	mg/Kg	☼	12/20/17 14:00	12/21/17 18:28	1
Copper	20		0.72	mg/Kg	☼	12/20/17 14:00	12/21/17 18:28	1
Zinc	84		1.8	mg/Kg	☼	12/20/17 14:00	12/21/17 18:28	1
Lead	16		0.22	mg/Kg	☼	12/20/17 14:00	12/21/17 18:28	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	25		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 18:33	1
Cadmium	0.11		0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 18:33	1
Chromium	10		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 18:33	1
Copper	7.3		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 18:33	1
Zinc	45		1.6	mg/Kg	☼	12/20/17 14:00	12/21/17 18:33	1
Lead	4.3		0.20	mg/Kg	☼	12/20/17 14:00	12/21/17 18:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	25		0.73	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:37	1
Cadmium	0.12		0.073	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:37	1
Chromium	8.3		0.73	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:37	1
Copper	7.1		0.73	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:37	1
Zinc	21		1.8	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:37	1
Lead	3.6		0.22	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	37		0.80	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:42	1
Cadmium	0.13		0.080	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:42	1
Chromium	11		0.80	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:42	1
Copper	8.7		0.80	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:42	1
Zinc	24		2.0	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:42	1
Lead	5.3		0.24	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	45		0.75	mg/Kg	☼	12/20/17 14:00	12/21/17 18:47	1
Cadmium	0.18		0.075	mg/Kg	☼	12/20/17 14:00	12/21/17 18:47	1
Chromium	14		0.75	mg/Kg	☼	12/20/17 14:00	12/21/17 18:47	1
Copper	11		0.75	mg/Kg	☼	12/20/17 14:00	12/21/17 18:47	1
Zinc	35		1.9	mg/Kg	☼	12/20/17 14:00	12/21/17 18:47	1
Lead	11		0.22	mg/Kg	☼	12/20/17 14:00	12/21/17 18:47	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	21		0.76	mg/Kg	☼	12/20/17 14:00	12/21/17 19:00	1
Cadmium	0.092		0.076	mg/Kg	☼	12/20/17 14:00	12/21/17 19:00	1
Chromium	7.1		0.76	mg/Kg	☼	12/20/17 14:00	12/21/17 19:00	1
Copper	6.1		0.76	mg/Kg	☼	12/20/17 14:00	12/21/17 19:00	1
Zinc	31		1.9	mg/Kg	☼	12/20/17 14:00	12/21/17 19:00	1
Lead	9.4		0.23	mg/Kg	☼	12/20/17 14:00	12/21/17 19:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	8.7		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 19:05	1
Cadmium	0.065	U	0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 19:05	1
Chromium	3.7		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 19:05	1
Copper	2.4		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 19:05	1
Zinc	11		1.6	mg/Kg	☼	12/20/17 14:00	12/21/17 19:05	1
Lead	13		0.20	mg/Kg	☼	12/20/17 14:00	12/21/17 19:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	38		0.78	mg/Kg	☼	12/20/17 14:00	12/21/17 19:10	1
Cadmium	0.12		0.078	mg/Kg	☼	12/20/17 14:00	12/21/17 19:10	1
Chromium	12		0.78	mg/Kg	☼	12/20/17 14:00	12/21/17 19:10	1
Copper	8.0		0.78	mg/Kg	☼	12/20/17 14:00	12/21/17 19:10	1
Zinc	24		1.9	mg/Kg	☼	12/20/17 14:00	12/21/17 19:10	1
Lead	5.3		0.23	mg/Kg	☼	12/20/17 14:00	12/21/17 19:10	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	21		0.86	mg/Kg	☼	12/20/17 14:00	12/21/17 19:14	1
Cadmium	0.10		0.086	mg/Kg	☼	12/20/17 14:00	12/21/17 19:14	1
Chromium	7.1		0.86	mg/Kg	☼	12/20/17 14:00	12/21/17 19:14	1
Copper	5.0		0.86	mg/Kg	☼	12/20/17 14:00	12/21/17 19:14	1
Zinc	18		2.2	mg/Kg	☼	12/20/17 14:00	12/21/17 19:14	1
Lead	7.0		0.26	mg/Kg	☼	12/20/17 14:00	12/21/17 19:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	29		0.82	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:05	1
Cadmium	0.12		0.082	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:05	1
Chromium	8.5		0.82	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:05	1
Copper	6.8		0.82	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:05	1
Zinc	24		2.0	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:05	1
Lead	8.4		0.25	mg/Kg	⚠	12/20/17 14:00	12/21/17 18:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	47		0.79	mg/Kg	☼	12/20/17 14:00	12/21/17 19:19	1
Cadmium	0.12		0.079	mg/Kg	☼	12/20/17 14:00	12/21/17 19:19	1
Chromium	14		0.79	mg/Kg	☼	12/20/17 14:00	12/21/17 19:19	1
Copper	9.9		0.79	mg/Kg	☼	12/20/17 14:00	12/21/17 19:19	1
Zinc	25		2.0	mg/Kg	☼	12/20/17 14:00	12/21/17 19:19	1
Lead	5.0		0.24	mg/Kg	☼	12/20/17 14:00	12/21/17 19:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	35		0.79	mg/Kg	☼	12/20/17 14:00	12/21/17 19:23	1
Cadmium	0.14		0.079	mg/Kg	☼	12/20/17 14:00	12/21/17 19:23	1
Chromium	11		0.79	mg/Kg	☼	12/20/17 14:00	12/21/17 19:23	1
Copper	9.6		1.6	mg/Kg	☼	12/20/17 14:00	12/22/17 18:59	2
Zinc	36		2.0	mg/Kg	☼	12/20/17 14:00	12/21/17 19:23	1
Lead	8.0		0.24	mg/Kg	☼	12/20/17 14:00	12/21/17 19:23	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	30		0.89	mg/Kg	☼	12/20/17 14:00	12/21/17 19:28	1
Cadmium	0.15		0.089	mg/Kg	☼	12/20/17 14:00	12/21/17 19:28	1
Chromium	9.2		0.89	mg/Kg	☼	12/20/17 14:00	12/21/17 19:28	1
Copper	7.6		0.89	mg/Kg	☼	12/20/17 14:00	12/21/17 19:28	1
Zinc	36		2.2	mg/Kg	☼	12/20/17 14:00	12/21/17 19:28	1
Lead	11		0.27	mg/Kg	☼	12/20/17 14:00	12/21/17 19:28	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	22		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 19:33	1
Cadmium	0.12		0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 19:33	1
Chromium	5.7		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 19:33	1
Copper	6.0		0.65	mg/Kg	☼	12/20/17 14:00	12/21/17 19:33	1
Zinc	26		1.6	mg/Kg	☼	12/20/17 14:00	12/21/17 19:33	1
Lead	11		0.19	mg/Kg	☼	12/20/17 14:00	12/21/17 19:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	23		0.72	mg/Kg	☼	12/20/17 14:00	12/21/17 19:37	1
Cadmium	0.097		0.072	mg/Kg	☼	12/20/17 14:00	12/21/17 19:37	1
Chromium	7.2		0.72	mg/Kg	☼	12/20/17 14:00	12/21/17 19:37	1
Copper	5.9		0.72	mg/Kg	☼	12/20/17 14:00	12/21/17 19:37	1
Zinc	17		1.8	mg/Kg	☼	12/20/17 14:00	12/21/17 19:37	1
Lead	6.7		0.22	mg/Kg	☼	12/20/17 14:00	12/21/17 19:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	8.0		0.58	mg/Kg	☼	12/20/17 14:00	12/21/17 19:42	1
Cadmium	0.058	U	0.058	mg/Kg	☼	12/20/17 14:00	12/21/17 19:42	1
Chromium	3.1		0.58	mg/Kg	☼	12/20/17 14:00	12/21/17 19:42	1
Copper	2.7		0.58	mg/Kg	☼	12/20/17 14:00	12/21/17 19:42	1
Zinc	9.5		1.4	mg/Kg	☼	12/20/17 14:00	12/21/17 19:42	1
Lead	5.0		0.17	mg/Kg	☼	12/20/17 14:00	12/21/17 19:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	27		0.66	mg/Kg	☼	12/20/17 14:00	12/21/17 19:56	1
Cadmium	0.13		0.066	mg/Kg	☼	12/20/17 14:00	12/21/17 19:56	1
Chromium	7.1		0.66	mg/Kg	☼	12/20/17 14:00	12/21/17 19:56	1
Copper	6.0		0.66	mg/Kg	☼	12/20/17 14:00	12/21/17 19:56	1
Zinc	27		1.7	mg/Kg	☼	12/20/17 14:00	12/21/17 19:56	1
Lead	13		0.20	mg/Kg	☼	12/20/17 14:00	12/21/17 19:56	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	21		0.80	mg/Kg	☼	12/20/17 14:00	12/21/17 20:01	1
Cadmium	0.11		0.080	mg/Kg	☼	12/20/17 14:00	12/21/17 20:01	1
Chromium	7.1		0.80	mg/Kg	☼	12/20/17 14:00	12/21/17 20:01	1
Copper	5.1		0.80	mg/Kg	☼	12/20/17 14:00	12/21/17 20:01	1
Zinc	25		2.0	mg/Kg	☼	12/20/17 14:00	12/21/17 20:01	1
Lead	7.0		0.24	mg/Kg	☼	12/20/17 14:00	12/21/17 20:01	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	28		0.89	mg/Kg	⚠	12/20/17 14:00	12/21/17 20:05	1
Cadmium	0.24		0.089	mg/Kg	⚠	12/20/17 14:00	12/21/17 20:05	1
Chromium	9.0		0.89	mg/Kg	⚠	12/20/17 14:00	12/21/17 20:05	1
Copper	11		0.89	mg/Kg	⚠	12/20/17 14:00	12/21/17 20:05	1
Zinc	47		2.2	mg/Kg	⚠	12/20/17 14:00	12/21/17 20:05	1
Lead	39		0.27	mg/Kg	⚠	12/20/17 14:00	12/21/17 20:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	40		0.67	mg/Kg	☼	12/21/17 14:00	12/27/17 00:26	1
Cadmium	0.21		0.067	mg/Kg	☼	12/21/17 14:00	12/27/17 00:26	1
Chromium	11		0.67	mg/Kg	☼	12/21/17 14:00	12/27/17 00:26	1
Copper	14		0.67	mg/Kg	☼	12/21/17 14:00	12/27/17 00:26	1
Zinc	67		1.7	mg/Kg	☼	12/21/17 14:00	12/27/17 00:26	1
Lead	37		0.20	mg/Kg	☼	12/21/17 14:00	12/27/17 00:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.7		0.074	mg/Kg	☼	12/20/17 14:00	12/21/17 13:23	2
Selenium	0.32		0.15	mg/Kg	☼	12/20/17 14:00	12/21/17 13:23	2
Silver	0.074	U	0.074	mg/Kg	☼	12/20/17 14:00	12/21/17 13:23	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.1		0.072	mg/Kg	☼	12/20/17 14:00	12/21/17 13:28	2
Selenium	0.72		0.14	mg/Kg	☼	12/20/17 14:00	12/21/17 13:28	2
Silver	0.072	U	0.072	mg/Kg	☼	12/20/17 14:00	12/21/17 13:28	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.8		0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 13:32	2
Selenium	0.32		0.13	mg/Kg	☼	12/20/17 14:00	12/21/17 13:32	2
Silver	0.065	U	0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 13:32	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		0.073	mg/Kg	☼	12/20/17 14:00	12/21/17 13:37	2
Selenium	0.39		0.15	mg/Kg	☼	12/20/17 14:00	12/21/17 13:37	2
Silver	0.073	U	0.073	mg/Kg	☼	12/20/17 14:00	12/21/17 13:37	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.5		0.080	mg/Kg	☼	12/20/17 14:00	12/21/17 13:41	2
Selenium	0.37		0.16	mg/Kg	☼	12/20/17 14:00	12/21/17 13:41	2
Silver	0.080	U	0.080	mg/Kg	☼	12/20/17 14:00	12/21/17 13:41	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		0.075	mg/Kg	☼	12/20/17 14:00	12/21/17 13:46	2
Selenium	0.48		0.15	mg/Kg	☼	12/20/17 14:00	12/21/17 13:46	2
Silver	0.075	U	0.075	mg/Kg	☼	12/20/17 14:00	12/21/17 13:46	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		0.076	mg/Kg	☼	12/20/17 14:00	12/21/17 13:59	2
Selenium	0.27		0.15	mg/Kg	☼	12/20/17 14:00	12/21/17 13:59	2
Silver	0.076	U	0.076	mg/Kg	☼	12/20/17 14:00	12/21/17 13:59	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.4		0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 14:04	2
Selenium	0.14		0.13	mg/Kg	☼	12/20/17 14:00	12/21/17 14:04	2
Silver	0.065	U	0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 14:04	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.078	mg/Kg	☼	12/20/17 14:00	12/21/17 14:08	2
Selenium	0.36		0.16	mg/Kg	☼	12/20/17 14:00	12/21/17 14:08	2
Silver	0.078	U	0.078	mg/Kg	☼	12/20/17 14:00	12/21/17 14:08	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		0.086	mg/Kg	☼	12/20/17 14:00	12/21/17 14:13	2
Selenium	0.20		0.17	mg/Kg	☼	12/20/17 14:00	12/21/17 14:13	2
Silver	0.086	U	0.086	mg/Kg	☼	12/20/17 14:00	12/21/17 14:13	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		0.082	mg/Kg	☼	12/20/17 14:00	12/21/17 12:52	2
Selenium	0.38		0.16	mg/Kg	☼	12/20/17 14:00	12/21/17 12:52	2
Silver	0.082	U	0.082	mg/Kg	☼	12/20/17 14:00	12/21/17 12:52	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.1		0.079	mg/Kg	☼	12/20/17 14:00	12/21/17 14:17	2
Selenium	0.45		0.16	mg/Kg	☼	12/20/17 14:00	12/21/17 14:17	2
Silver	0.079	U	0.079	mg/Kg	☼	12/20/17 14:00	12/21/17 14:17	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.079	mg/Kg	☼	12/20/17 14:00	12/21/17 14:21	2
Selenium	0.40		0.16	mg/Kg	☼	12/20/17 14:00	12/21/17 14:21	2
Silver	0.079	U	0.079	mg/Kg	☼	12/20/17 14:00	12/21/17 14:21	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.089	mg/Kg	☼	12/20/17 14:00	12/21/17 14:26	2
Selenium	0.31		0.18	mg/Kg	☼	12/20/17 14:00	12/21/17 14:26	2
Silver	0.089	U	0.089	mg/Kg	☼	12/20/17 14:00	12/21/17 14:26	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.1		0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 14:30	2
Selenium	0.23		0.13	mg/Kg	☼	12/20/17 14:00	12/21/17 14:30	2
Silver	0.065	U	0.065	mg/Kg	☼	12/20/17 14:00	12/21/17 14:30	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		0.072	mg/Kg	☼	12/20/17 14:00	12/21/17 14:35	2
Selenium	0.26		0.14	mg/Kg	☼	12/20/17 14:00	12/21/17 14:35	2
Silver	0.072	U	0.072	mg/Kg	☼	12/20/17 14:00	12/21/17 14:35	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7		0.058	mg/Kg	☼	12/20/17 14:00	12/21/17 14:39	2
Selenium	0.16		0.12	mg/Kg	☼	12/20/17 14:00	12/21/17 14:39	2
Silver	0.058	U	0.058	mg/Kg	☼	12/20/17 14:00	12/21/17 14:39	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		0.066	mg/Kg	☼	12/20/17 14:00	12/21/17 14:53	2
Selenium	0.24		0.13	mg/Kg	☼	12/20/17 14:00	12/21/17 14:53	2
Silver	0.066	U	0.066	mg/Kg	☼	12/20/17 14:00	12/21/17 14:53	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		0.080	mg/Kg	☼	12/20/17 14:00	12/21/17 14:57	2
Selenium	0.17		0.16	mg/Kg	☼	12/20/17 14:00	12/21/17 14:57	2
Silver	0.080	U	0.080	mg/Kg	☼	12/20/17 14:00	12/21/17 14:57	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		0.089	mg/Kg	☼	12/20/17 14:00	12/21/17 15:02	2
Selenium	0.31		0.18	mg/Kg	☼	12/20/17 14:00	12/21/17 15:02	2
Silver	0.089	U	0.089	mg/Kg	☼	12/20/17 14:00	12/21/17 15:02	2

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.9		0.033	mg/Kg	☼	12/21/17 14:00	12/26/17 21:06	1
Selenium	0.16		0.067	mg/Kg	☼	12/21/17 14:00	12/26/17 21:06	1
Silver	0.033	U	0.033	mg/Kg	☼	12/21/17 14:00	12/26/17 21:06	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043	U	0.043	mg/Kg	☼	12/20/17 16:00	12/21/17 10:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048	U	0.048	mg/Kg	☼	12/20/17 16:00	12/21/17 10:31	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048	U	0.048	mg/Kg	☼	12/20/17 16:00	12/21/17 10:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041	U	0.041	mg/Kg	☼	12/20/17 16:00	12/21/17 10:35	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039	U	0.039	mg/Kg	☼	12/20/17 16:00	12/21/17 10:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051	U	0.051	mg/Kg	☼	12/20/17 16:00	12/21/17 10:39	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.044	U	0.044	mg/Kg	☼	12/20/17 16:00	12/21/17 10:45	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045	U	0.045	mg/Kg	☼	12/20/17 16:00	12/21/17 10:47	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043	U	0.043	mg/Kg	☼	12/20/17 16:00	12/21/17 10:49	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048	U	0.048	mg/Kg	☼	12/20/17 16:00	12/21/17 10:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045	U	0.045	mg/Kg	☼	12/20/17 16:00	12/21/17 10:23	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.045	U	0.045	mg/Kg	☼	12/20/17 16:00	12/21/17 10:53	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050	U	0.050	mg/Kg	☼	12/20/17 16:00	12/21/17 10:55	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051	U	0.051	mg/Kg	☼	12/20/17 16:00	12/21/17 10:57	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051	U	0.051	mg/Kg	☼	12/20/17 16:00	12/21/17 10:59	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050	U	0.050	mg/Kg	☼	12/20/17 16:00	12/21/17 11:01	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046	U	0.046	mg/Kg	☼	12/20/17 16:00	12/21/17 11:03	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048	U	0.048	mg/Kg	☼	12/20/17 16:00	12/21/17 11:09	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.041	mg/Kg	☼	12/20/17 16:00	12/21/17 11:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050	U	0.050	mg/Kg	☼	12/20/17 16:00	12/21/17 11:13	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042	U *	0.042	mg/Kg	☼	12/21/17 16:00	12/22/17 13:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86.8		0.1	%			12/20/17 08:23	1
Percent Moisture	13.2		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3500		1100	mg/Kg	☼		12/20/17 09:25	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82.2		0.1	%			12/20/17 08:23	1
Percent Moisture	17.8		0.1	%			12/20/17 08:23	1
Total Organic Carbon	13000		1200	mg/Kg	⚠		12/20/17 09:28	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1003

Date Collected: 12/18/17 09:55

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-3

Matrix: Solid

Percent Solids: 88.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.7		0.1	%			12/20/17 08:23	1
Percent Moisture	11.3		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3800		1100	mg/Kg	⚠		12/20/17 09:30	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1004

Date Collected: 12/18/17 10:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-4

Matrix: Solid

Percent Solids: 89.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.3		0.1	%			12/20/17 08:23	1
Percent Moisture	10.7		0.1	%			12/20/17 08:23	1
Total Organic Carbon	4000		1100	mg/Kg	⚠		12/20/17 09:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1005

Date Collected: 12/18/17 10:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-5

Matrix: Solid

Percent Solids: 89.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.6		0.1	%			12/20/17 08:23	1
Percent Moisture	10.4		0.1	%			12/20/17 08:23	1
Total Organic Carbon	4500		1100	mg/Kg	⚠		12/20/17 09:36	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1006

Date Collected: 12/18/17 10:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-6

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87.9		0.1	%			12/20/17 08:23	1
Percent Moisture	12.1		0.1	%			12/20/17 08:23	1
Total Organic Carbon	6000		1100	mg/Kg	⚠		12/20/17 09:39	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1007

Date Collected: 12/18/17 10:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-7

Matrix: Solid

Percent Solids: 87.7

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87.7		0.1	%			12/20/17 08:23	1
Percent Moisture	12.3		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3400		1100	mg/Kg	⚠		12/20/17 09:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1008

Date Collected: 12/18/17 10:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-8

Matrix: Solid

Percent Solids: 88.3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.3		0.1	%			12/20/17 08:23	1
Percent Moisture	11.7		0.1	%			12/20/17 08:23	1
Total Organic Carbon	2900		1100	mg/Kg	⚠		12/20/17 09:51	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1009

Date Collected: 12/18/17 11:05

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-9

Matrix: Solid

Percent Solids: 91.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91.1		0.1	%			12/20/17 08:23	1
Percent Moisture	8.9		0.1	%			12/20/17 08:23	1
Total Organic Carbon	4100		1100	mg/Kg	⚠		12/20/17 09:54	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1010

Date Collected: 12/18/17 11:20

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-10

Matrix: Solid

Percent Solids: 91.2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91.2		0.1	%			12/20/17 08:23	1
Percent Moisture	8.8		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3500		1100	mg/Kg	⚠		12/20/17 09:57	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1011

Date Collected: 12/18/17 11:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-11

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.1		0.1	%			12/20/17 08:23	1
Percent Moisture	14.9		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3600		1200	mg/Kg	⚠		12/20/17 09:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1012

Date Collected: 12/18/17 11:45

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-12

Matrix: Solid

Percent Solids: 89.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89.1		0.1	%			12/20/17 08:23	1
Percent Moisture	10.9		0.1	%			12/20/17 08:23	1
Total Organic Carbon	4500		1100	mg/Kg	⚠		12/20/17 09:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1013

Date Collected: 12/18/17 12:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-13

Matrix: Solid

Percent Solids: 82.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82.9		0.1	%			12/20/17 08:23	1
Percent Moisture	17.1		0.1	%			12/20/17 08:23	1
Total Organic Carbon	7200		1200	mg/Kg	⚠		12/20/17 10:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1014

Date Collected: 12/18/17 12:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-14

Matrix: Solid

Percent Solids: 87.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87.9		0.1	%			12/20/17 08:23	1
Percent Moisture	12.1		0.1	%			12/20/17 08:23	1
Total Organic Carbon	5400		1100	mg/Kg	⚠		12/20/17 10:02	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1015

Date Collected: 12/18/17 12:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-15

Matrix: Solid

Percent Solids: 88.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.9		0.1	%			12/20/17 08:23	1
Percent Moisture	11.1		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3800		1100	mg/Kg	⚠		12/20/17 10:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1016

Date Collected: 12/18/17 12:50

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-16

Matrix: Solid

Percent Solids: 85.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.6		0.1	%			12/20/17 08:23	1
Percent Moisture	14.4		0.1	%			12/20/17 08:23	1
Total Organic Carbon	2700		1200	mg/Kg	⚠		12/20/17 10:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1017

Date Collected: 12/18/17 13:00

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-17

Matrix: Solid

Percent Solids: 93.9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	93.9		0.1	%			12/20/17 08:23	1
Percent Moisture	6.1		0.1	%			12/20/17 08:23	1
Total Organic Carbon	2200		1100	mg/Kg	⚠		12/20/17 10:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1018

Date Collected: 12/18/17 13:15

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-18

Matrix: Solid

Percent Solids: 90.8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90.8		0.1	%			12/20/17 08:23	1
Percent Moisture	9.2		0.1	%			12/20/17 08:23	1
Total Organic Carbon	3100		1100	mg/Kg	⚠		12/20/17 10:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1019

Date Collected: 12/18/17 13:25

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-19

Matrix: Solid

Percent Solids: 90.6

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90.6		0.1	%			12/20/17 08:23	1
Percent Moisture	9.4		0.1	%			12/20/17 08:23	1
Total Organic Carbon	4100		1100	mg/Kg	⚠		12/20/17 10:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1020

Date Collected: 12/18/17 13:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-20

Matrix: Solid

Percent Solids: 85.1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.1		0.1	%			12/20/17 08:23	1
Percent Moisture	14.9		0.1	%			12/20/17 08:23	1
Total Organic Carbon	9600		1200	mg/Kg	⚠		12/20/17 10:32	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry

Client Sample ID: S-58502-121817-SSH-1021

Date Collected: 12/18/17 13:41

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-21

Matrix: Solid

Percent Solids: 88.0

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.0		0.1	%			12/20/17 08:23	1
Percent Moisture	12.0		0.1	%			12/20/17 08:23	1
Total Organic Carbon	8200		1100	mg/Kg	⚠		12/20/17 10:26	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

GC/MS VOA

Prep Batch: 308903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	5035	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	5035	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	5035	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	5035	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	5035	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	5035	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	5035	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	5035	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	5035	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	5035	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	5035	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	5035	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	5035	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	5035	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	5035	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	5035	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	5035	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	5035	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	5035	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	5035	
MB 240-308903/1-A	Method Blank	Total/NA	Solid	5035	
LCS 240-308903/2-A	Lab Control Sample	Total/NA	Solid	5035	

Prep Batch: 308992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	5035	
MB 240-308992/1-A	Method Blank	Total/NA	Solid	5035	
LCS 240-308992/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 309086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	8260B	308903
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	8260B	308903
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	8260B	308903
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	8260B	308903
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	8260B	308903
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	8260B	308903
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	8260B	308903
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	8260B	308903
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	8260B	308903
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	8260B	308903
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	8260B	308903
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	8260B	308903
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	8260B	308903
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	8260B	308903
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	8260B	308903
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	8260B	308903
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	8260B	308903
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	8260B	308903
MB 240-308903/1-A	Method Blank	Total/NA	Solid	8260B	308903
LCS 240-308903/2-A	Lab Control Sample	Total/NA	Solid	8260B	308903

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Analysis Batch: 309377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	8260B	308903
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	8260B	308903
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	8260B	308992
MB 240-308992/1-A	Method Blank	Total/NA	Solid	8260B	308992
LCS 240-308992/2-A	Lab Control Sample	Total/NA	Solid	8260B	308992

GC/MS Semi VOA

Prep Batch: 309410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	3540C	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	3540C	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	3540C	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	3540C	
MB 240-309410/22-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-309410/23-A	Lab Control Sample	Total/NA	Solid	3540C	
240-89576-4 MS	S-58502-121817-SSH-1004	Total/NA	Solid	3540C	
240-89576-4 MSD	S-58502-121817-SSH-1004	Total/NA	Solid	3540C	

Prep Batch: 309572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	3540C	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	3540C	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	3540C	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	3540C	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	3540C	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	3540C	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	3540C	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	3540C	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	3540C	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	3540C	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	3540C	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	3540C	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	3540C	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	3540C	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	3540C	
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	3540C	
MB 240-309572/22-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-309572/23-A	Lab Control Sample	Total/NA	Solid	3540C	
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	

Analysis Batch: 309732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	8270C	309572
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	8270C	309572
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	8270C	309572
MB 240-309572/22-A	Method Blank	Total/NA	Solid	8270C	309572
LCS 240-309572/23-A	Lab Control Sample	Total/NA	Solid	8270C	309572

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

GC/MS Semi VOA (Continued)

Analysis Batch: 309741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	8270C	309410
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	8270C	309410
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	8270C	309410
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	8270C	309410
MB 240-309410/22-A	Method Blank	Total/NA	Solid	8270C	309410
LCS 240-309410/23-A	Lab Control Sample	Total/NA	Solid	8270C	309410
240-89576-4 MS	S-58502-121817-SSH-1004	Total/NA	Solid	8270C	309410
240-89576-4 MSD	S-58502-121817-SSH-1004	Total/NA	Solid	8270C	309410

Analysis Batch: 309871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	8270C	309572
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	8270C	309572
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	8270C	309572
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	8270C	309572

Analysis Batch: 310043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	8270C	309572
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	8270C	309572
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	8270C	309572
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	8270C	309572
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	8270C	309572
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	8270C	309572
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	8270C	309572
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	8270C	309572
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	8270C	309572
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	8270C	309572
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	8270C	309572
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	8270C	309572

GC Semi VOA

Prep Batch: 228694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	8151A	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	8151A	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	8151A	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	8151A	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	8151A	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	8151A	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	8151A	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	8151A	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	8151A	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	8151A	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	8151A	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	8151A	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	8151A	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	8151A	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	8151A	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

GC Semi VOA (Continued)

Prep Batch: 228694 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	8151A	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	8151A	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	8151A	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	8151A	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	8151A	
MB 600-228694/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 600-228694/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 600-228694/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Prep Batch: 228696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	8151A	
MB 600-228696/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 600-228696/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Analysis Batch: 228778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	8151	228694
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	8151	228694
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	8151	228694
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	8151	228694
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	8151	228694
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	8151	228694
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	8151	228694
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	8151	228694
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	8151	228694
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	8151	228694
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	8151	228694
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	8151	228694
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	8151	228694
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	8151	228694
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	8151	228694
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	8151	228694
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	8151	228694
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	8151	228694
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	8151	228694
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	8151	228694
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	8151	228696
MB 600-228694/1-A	Method Blank	Total/NA	Solid	8151	228694
MB 600-228696/1-A	Method Blank	Total/NA	Solid	8151	228696
LCS 600-228694/2-A	Lab Control Sample	Total/NA	Solid	8151	228694
LCS 600-228696/2-A	Lab Control Sample	Total/NA	Solid	8151	228696
LCSD 600-228694/3-A	Lab Control Sample Dup	Total/NA	Solid	8151	228694

Prep Batch: 308659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	3540C	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	3540C	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	3540C	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	3540C	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	3540C	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

GC Semi VOA (Continued)

Prep Batch: 308659 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	3540C	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	3540C	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	3540C	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	3540C	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	3540C	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	3540C	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	3540C	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	3540C	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	3540C	
MB 240-308659/22-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-308659/23-A	Lab Control Sample	Total/NA	Solid	3540C	
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	

Analysis Batch: 308794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	8082A	308659
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	8082A	308659
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	8082A	308659
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	8082A	308659
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	8082A	308659
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	8082A	308659
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	8082A	308659
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	8082A	308659
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	8082A	308659
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	8082A	308659
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	8082A	308659
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	8082A	308659
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	8082A	308659
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	8082A	308659
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	8082A	308659
MB 240-308659/22-A	Method Blank	Total/NA	Solid	8082A	308659
LCS 240-308659/23-A	Lab Control Sample	Total/NA	Solid	8082A	308659
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	8082A	308659
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	8082A	308659

Prep Batch: 309456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	3540C	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	3540C	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	3540C	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	3540C	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	3540C	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	3540C	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	3540C	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	3540C	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	3540C	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	3540C	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	3540C	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

GC Semi VOA (Continued)

Prep Batch: 309456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	3540C	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	3540C	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	3540C	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	3540C	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	3540C	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	3540C	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	3540C	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	3540C	
MB 240-309456/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-309456/24-A	Lab Control Sample	Total/NA	Solid	3540C	
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	3540C	

Prep Batch: 309467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	3540C	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	3540C	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	3540C	
MB 240-309467/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-309467/24-A	Lab Control Sample	Total/NA	Solid	3540C	

Prep Batch: 309549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	3540C	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	3540C	
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	3540C	
MB 240-309549/23-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-309549/24-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 240-309549/25-A	Lab Control Sample Dup	Total/NA	Solid	3540C	

Prep Batch: 309571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	3540C	
MB 240-309571/6-A	Method Blank	Total/NA	Solid	3540C	
LCS 240-309571/7-A	Lab Control Sample	Total/NA	Solid	3540C	

Analysis Batch: 309653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	8082A	309467
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	8082A	309467
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	8082A	309467
MB 240-309467/23-A	Method Blank	Total/NA	Solid	8082A	309467
LCS 240-309467/24-A	Lab Control Sample	Total/NA	Solid	8082A	309467

Analysis Batch: 309735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	8081A	309456
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	8081A	309456
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	8081A	309456
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	8081A	309456
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	8081A	309456

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

GC Semi VOA (Continued)

Analysis Batch: 309735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	8081A	309456
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	8081A	309456
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	8081A	309456
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	8081A	309456
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	8081A	309456
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	8081A	309456
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	8081A	309456
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	8081A	309456
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	8081A	309456
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	8081A	309456
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	8081A	309456
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	8081A	309456
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	8081A	309456
MB 240-309456/23-A	Method Blank	Total/NA	Solid	8081A	309456
LCS 240-309456/24-A	Lab Control Sample	Total/NA	Solid	8081A	309456

Analysis Batch: 309793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	8082A	309549
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	8082A	309549
MB 240-309549/23-A	Method Blank	Total/NA	Solid	8082A	309549
LCS 240-309549/24-A	Lab Control Sample	Total/NA	Solid	8082A	309549
LCSD 240-309549/25-A	Lab Control Sample Dup	Total/NA	Solid	8082A	309549

Analysis Batch: 309842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	8081A	309456
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	8081A	309456
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	8081A	309571
MB 240-309571/6-A	Method Blank	Total/NA	Solid	8081A	309571
LCS 240-309571/7-A	Lab Control Sample	Total/NA	Solid	8081A	309571
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	8081A	309456
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	8081A	309456

Analysis Batch: 309863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	8082A	309549

Metals

Prep Batch: 308519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	3050B	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	3050B	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	3050B	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	3050B	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	3050B	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	3050B	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	3050B	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	3050B	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Metals (Continued)

Prep Batch: 308519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	3050B	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	3050B	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	3050B	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	3050B	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	3050B	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	3050B	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	3050B	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	3050B	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	3050B	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	3050B	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	3050B	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	3050B	
MB 240-308519/1-A	Method Blank	Total/NA	Solid	3050B	
MB 240-308519/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 240-308519/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 240-308519/3-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	3050B	
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	3050B	
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	3050B	
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	3050B	

Prep Batch: 308537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	7471A	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	7471A	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	7471A	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	7471A	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	7471A	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	7471A	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	7471A	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	7471A	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	7471A	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	7471A	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	7471A	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	7471A	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	7471A	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	7471A	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	7471A	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	7471A	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	7471A	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	7471A	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	7471A	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	7471A	
MB 240-308537/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 240-308537/2-A	Lab Control Sample	Total/NA	Solid	7471A	
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	7471A	
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	7471A	

Prep Batch: 308692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	3050B	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Metals (Continued)

Prep Batch: 308692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-308692/1-A	Method Blank	Total/NA	Solid	3050B	
MB 240-308692/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 240-308692/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 240-308692/3-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 308705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	6010B	308519
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	6010B	308519
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	6010B	308519
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	6010B	308519
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	6010B	308519
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	6010B	308519
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	6010B	308519
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	6010B	308519
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	6010B	308519
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	6010B	308519
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	6010B	308519
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	6010B	308519
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	6010B	308519
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	6010B	308519
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	6010B	308519
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	6010B	308519
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	6010B	308519
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	6010B	308519
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	6010B	308519
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	6010B	308519
MB 240-308519/1-A	Method Blank	Total/NA	Solid	6010B	308519
LCS 240-308519/2-A	Lab Control Sample	Total/NA	Solid	6010B	308519
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	6010B	308519
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	6010B	308519

Prep Batch: 308713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	7471A	
MB 240-308713/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 240-308713/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Analysis Batch: 308742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	7471A	308537
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	7471A	308537
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	7471A	308537
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	7471A	308537
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	7471A	308537
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	7471A	308537
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	7471A	308537
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	7471A	308537
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	7471A	308537
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	7471A	308537
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	7471A	308537

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Metals (Continued)

Analysis Batch: 308742 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	7471A	308537
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	7471A	308537
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	7471A	308537
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	7471A	308537
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	7471A	308537
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	7471A	308537
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	7471A	308537
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	7471A	308537
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	7471A	308537
MB 240-308537/1-A	Method Blank	Total/NA	Solid	7471A	308537
LCS 240-308537/2-A	Lab Control Sample	Total/NA	Solid	7471A	308537
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	7471A	308537
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	7471A	308537

Analysis Batch: 308823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	6020	308519
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	6020	308519
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	6020	308519
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	6020	308519
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	6020	308519
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	6020	308519
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	6020	308519
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	6020	308519
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	6020	308519
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	6020	308519
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	6020	308519
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	6020	308519
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	6020	308519
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	6020	308519
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	6020	308519
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	6020	308519
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	6020	308519
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	6020	308519
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	6020	308519
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	6020	308519
MB 240-308519/1-A ^2	Method Blank	Total/NA	Solid	6020	308519
LCS 240-308519/3-A ^2	Lab Control Sample	Total/NA	Solid	6020	308519
240-89576-11 MS	S-58502-121817-SSH-1011	Total/NA	Solid	6020	308519
240-89576-11 MSD	S-58502-121817-SSH-1011	Total/NA	Solid	6020	308519

Analysis Batch: 308900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	6010B	308519
MB 240-308692/1-A	Method Blank	Total/NA	Solid	6010B	308692
LCS 240-308692/2-A	Lab Control Sample	Total/NA	Solid	6010B	308692

Analysis Batch: 308949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	7471A	308713
MB 240-308713/1-A	Method Blank	Total/NA	Solid	7471A	308713

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Metals (Continued)

Analysis Batch: 308949 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-308713/2-A	Lab Control Sample	Total/NA	Solid	7471A	308713

Analysis Batch: 309038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-308692/1-A ^2	Method Blank	Total/NA	Solid	6020	308692
LCS 240-308692/3-A ^2	Lab Control Sample	Total/NA	Solid	6020	308692

Analysis Batch: 309207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	6020	308692

Analysis Batch: 309208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	6010B	308692

General Chemistry

Analysis Batch: 308463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	Moisture	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	Moisture	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	Moisture	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	Moisture	
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	Moisture	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	Moisture	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	Moisture	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	Moisture	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	Moisture	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	Moisture	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	Moisture	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	Moisture	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	Moisture	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	Moisture	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	Moisture	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	Moisture	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	Moisture	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	Moisture	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	Moisture	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	Moisture	
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	Moisture	
240-89576-1 DU	S-58502-121817-SSH-1001	Total/NA	Solid	Moisture	
240-89576-11 DU	S-58502-121817-SSH-1011	Total/NA	Solid	Moisture	
240-89576-20 DU	S-58502-121817-SSH-1020	Total/NA	Solid	Moisture	

Analysis Batch: 308469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-1	S-58502-121817-SSH-1001	Total/NA	Solid	Walkley Black	
240-89576-2	S-58502-121817-SSH-1002	Total/NA	Solid	Walkley Black	
240-89576-3	S-58502-121817-SSH-1003	Total/NA	Solid	Walkley Black	
240-89576-4	S-58502-121817-SSH-1004	Total/NA	Solid	Walkley Black	

TestAmerica Canton

QC Association Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

General Chemistry (Continued)

Analysis Batch: 308469 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-89576-5	S-58502-121817-SSH-1005	Total/NA	Solid	Walkley Black	
240-89576-6	S-58502-121817-SSH-1006	Total/NA	Solid	Walkley Black	
240-89576-7	S-58502-121817-SSH-1007	Total/NA	Solid	Walkley Black	
240-89576-8	S-58502-121817-SSH-1008	Total/NA	Solid	Walkley Black	
240-89576-9	S-58502-121817-SSH-1009	Total/NA	Solid	Walkley Black	
240-89576-10	S-58502-121817-SSH-1010	Total/NA	Solid	Walkley Black	
240-89576-11	S-58502-121817-SSH-1011	Total/NA	Solid	Walkley Black	
240-89576-12	S-58502-121817-SSH-1012	Total/NA	Solid	Walkley Black	
240-89576-13	S-58502-121817-SSH-1013	Total/NA	Solid	Walkley Black	
240-89576-14	S-58502-121817-SSH-1014	Total/NA	Solid	Walkley Black	
240-89576-15	S-58502-121817-SSH-1015	Total/NA	Solid	Walkley Black	
240-89576-16	S-58502-121817-SSH-1016	Total/NA	Solid	Walkley Black	
240-89576-17	S-58502-121817-SSH-1017	Total/NA	Solid	Walkley Black	
240-89576-18	S-58502-121817-SSH-1018	Total/NA	Solid	Walkley Black	
240-89576-19	S-58502-121817-SSH-1019	Total/NA	Solid	Walkley Black	
240-89576-20	S-58502-121817-SSH-1020	Total/NA	Solid	Walkley Black	
240-89576-21	S-58502-121817-SSH-1021	Total/NA	Solid	Walkley Black	
MB 240-308469/28	Method Blank	Total/NA	Solid	Walkley Black	
MB 240-308469/4	Method Blank	Total/NA	Solid	Walkley Black	
LCS 240-308469/29	Lab Control Sample	Total/NA	Solid	Walkley Black	
LCS 240-308469/5	Lab Control Sample	Total/NA	Solid	Walkley Black	
240-89576-11 DU	S-58502-121817-SSH-1011	Total/NA	Solid	Walkley Black	
240-89576-12 DU	S-58502-121817-SSH-1012	Total/NA	Solid	Walkley Black	
240-89576-21 DU	S-58502-121817-SSH-1021	Total/NA	Solid	Walkley Black	

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-308903/1-A

Matrix: Solid

Analysis Batch: 309086

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308903

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Benzene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Bromodichloromethane	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Bromoform	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Bromomethane	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
2-Butanone (MEK)	600	U	600	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Carbon disulfide	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Carbon tetrachloride	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Chlorobenzene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Chloroethane	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Chloroform	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Chloromethane	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,1-Dichloroethane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,2-Dichloroethane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,1-Dichloroethene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,2-Dichloropropane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
cis-1,3-Dichloropropene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
trans-1,3-Dichloropropene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Ethylbenzene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
2-Hexanone	2000	U	2000	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Methylene Chloride	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Styrene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,1,2,2-Tetrachloroethane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Tetrachloroethene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Toluene	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Trichloroethene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Vinyl chloride	32	U	32	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Xylenes, Total	120	U	120	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,1,1-Trichloroethane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,1,2-Trichloroethane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Cyclohexane	960	U	960	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,2-Dibromo-3-Chloropropane	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,2-Dibromoethane	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Dichlorodifluoromethane	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
cis-1,2-Dichloroethene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
trans-1,2-Dichloroethene	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Isopropylbenzene	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Methyl acetate	960	U	960	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Methyl tert-butyl ether	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,2,4-Trichlorobenzene	200	U	200	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,2-Dichlorobenzene	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,3-Dichlorobenzene	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
1,4-Dichlorobenzene	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Trichlorofluoromethane	80	U	80	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Dibromochloromethane	40	U	40	ug/Kg		12/22/17 11:39	12/26/17 14:44	1
Methylcyclohexane	960	U	960	ug/Kg		12/22/17 11:39	12/26/17 14:44	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		64 - 144	12/22/17 11:39	12/26/17 14:44	1
4-Bromofluorobenzene (Surr)	87		58 - 142	12/22/17 11:39	12/26/17 14:44	1
Toluene-d8 (Surr)	93		61 - 137	12/22/17 11:39	12/26/17 14:44	1
Dibromofluoromethane (Surr)	99		31 - 155	12/22/17 11:39	12/26/17 14:44	1

Lab Sample ID: LCS 240-308903/2-A

Matrix: Solid

Analysis Batch: 309086

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308903

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	2000	1860		ug/Kg		93	24 - 125
Benzene	1000	992		ug/Kg		99	77 - 120
Bromodichloromethane	1000	953		ug/Kg		95	61 - 132
Bromoform	1000	720		ug/Kg		72	40 - 140
Bromomethane	1000	649		ug/Kg		65	10 - 153
2-Butanone (MEK)	2000	2290		ug/Kg		114	51 - 120
Carbon disulfide	1000	818		ug/Kg		82	17 - 163
Carbon tetrachloride	1000	844		ug/Kg		84	43 - 144
Chlorobenzene	1000	1100		ug/Kg		110	76 - 120
Chloroethane	1000	658		ug/Kg		66	10 - 166
Chloroform	1000	961		ug/Kg		96	74 - 120
Chloromethane	1000	748		ug/Kg		75	41 - 124
1,1-Dichloroethane	1000	1030		ug/Kg		103	72 - 120
1,2-Dichloroethane	1000	1020		ug/Kg		102	71 - 120
1,1-Dichloroethene	1000	937		ug/Kg		94	58 - 130
1,2-Dichloropropane	1000	1060		ug/Kg		106	78 - 122
cis-1,3-Dichloropropene	1000	892		ug/Kg		89	66 - 126
trans-1,3-Dichloropropene	1000	698		ug/Kg		70	55 - 121
Ethylbenzene	1000	944		ug/Kg		94	76 - 120
2-Hexanone	2000	2020		ug/Kg		101	52 - 129
Methylene Chloride	1000	1000		ug/Kg		100	64 - 126
4-Methyl-2-pentanone (MIBK)	2000	2040		ug/Kg		102	65 - 131
Styrene	1000	939		ug/Kg		94	80 - 120
1,1,2,2-Tetrachloroethane	1000	920		ug/Kg		92	78 - 120
Tetrachloroethene	1000	991		ug/Kg		99	68 - 122
Toluene	1000	986		ug/Kg		99	74 - 120
Trichloroethene	1000	949		ug/Kg		95	73 - 123
Vinyl chloride	1000	814		ug/Kg		81	49 - 131
Xylenes, Total	2000	1930		ug/Kg		96	78 - 120
1,1,1-Trichloroethane	1000	901		ug/Kg		90	60 - 136
1,1,2-Trichloroethane	1000	998		ug/Kg		100	80 - 120
Cyclohexane	1000	870	J	ug/Kg		87	66 - 129
1,2-Dibromo-3-Chloropropane	1000	779		ug/Kg		78	40 - 133
1,2-Dibromoethane	1000	902		ug/Kg		90	80 - 120
Dichlorodifluoromethane	1000	524		ug/Kg		52	15 - 127
cis-1,2-Dichloroethene	1000	967		ug/Kg		97	78 - 120
trans-1,2-Dichloroethene	1000	967		ug/Kg		97	74 - 124
Isopropylbenzene	1000	957		ug/Kg		96	76 - 124
Methyl acetate	2000	2170		ug/Kg		109	63 - 126
Methyl tert-butyl ether	1000	1050		ug/Kg		105	68 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	928		ug/Kg		93	64 - 125
1,2,4-Trichlorobenzene	1000	999		ug/Kg		100	60 - 124
1,2-Dichlorobenzene	1000	947		ug/Kg		95	75 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-308903/2-A

Matrix: Solid

Analysis Batch: 309086

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308903

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	1000	934		ug/Kg		93	72 - 120
1,4-Dichlorobenzene	1000	909		ug/Kg		91	71 - 120
Trichlorofluoromethane	1000	830		ug/Kg		83	28 - 152
Dibromochloromethane	1000	914		ug/Kg		91	46 - 125
Methylcyclohexane	1000	848	J	ug/Kg		85	71 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		64 - 144
4-Bromofluorobenzene (Surr)	89		58 - 142
Toluene-d8 (Surr)	90		61 - 137
Dibromofluoromethane (Surr)	98		31 - 155

Lab Sample ID: MB 240-308992/1-A

Matrix: Solid

Analysis Batch: 309377

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308992

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600	U	600	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Benzene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Bromodichloromethane	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Bromoform	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Bromomethane	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
2-Butanone (MEK)	600	U	600	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Carbon disulfide	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Carbon tetrachloride	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Chlorobenzene	41.7		40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Chloroethane	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Chloroform	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Chloromethane	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,1-Dichloroethane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,2-Dichloroethane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,1-Dichloroethene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,2-Dichloropropane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
cis-1,3-Dichloropropene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
trans-1,3-Dichloropropene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Ethylbenzene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
2-Hexanone	2000	U	2000	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Methylene Chloride	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
4-Methyl-2-pentanone (MIBK)	2000	U	2000	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Styrene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,1,2,2-Tetrachloroethane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Tetrachloroethene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Toluene	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Trichloroethene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Vinyl chloride	32	U	32	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Xylenes, Total	120	U	120	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,1,1-Trichloroethane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,1,2-Trichloroethane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-308992/1-A

Matrix: Solid

Analysis Batch: 309377

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308992

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	960	U	960	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,2-Dibromo-3-Chloropropane	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,2-Dibromoethane	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Dichlorodifluoromethane	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
cis-1,2-Dichloroethene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
trans-1,2-Dichloroethene	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Isopropylbenzene	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Methyl acetate	960	U	960	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Methyl tert-butyl ether	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,2,4-Trichlorobenzene	200	U	200	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,2-Dichlorobenzene	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,3-Dichlorobenzene	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
1,4-Dichlorobenzene	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Trichlorofluoromethane	80	U	80	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Dibromochloromethane	40	U	40	ug/Kg		12/23/17 09:35	12/28/17 12:09	1
Methylcyclohexane	960	U	960	ug/Kg		12/23/17 09:35	12/28/17 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		64 - 144	12/23/17 09:35	12/28/17 12:09	1
4-Bromofluorobenzene (Surr)	87		58 - 142	12/23/17 09:35	12/28/17 12:09	1
Toluene-d8 (Surr)	91		61 - 137	12/23/17 09:35	12/28/17 12:09	1
Dibromofluoromethane (Surr)	94		31 - 155	12/23/17 09:35	12/28/17 12:09	1

Lab Sample ID: LCS 240-308992/2-A

Matrix: Solid

Analysis Batch: 309377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acetone	2000	2450		ug/Kg		122	24 - 125
Benzene	1000	1030		ug/Kg		103	77 - 120
Bromodichloromethane	1000	774		ug/Kg		77	61 - 132
Bromoform	1000	471		ug/Kg		47	40 - 140
Bromomethane	1000	598		ug/Kg		60	10 - 153
2-Butanone (MEK)	2000	2840	*	ug/Kg		142	51 - 120
Carbon disulfide	1000	835		ug/Kg		83	17 - 163
Carbon tetrachloride	1000	629		ug/Kg		63	43 - 144
Chlorobenzene	1000	1120		ug/Kg		112	76 - 120
Chloroethane	1000	608		ug/Kg		61	10 - 166
Chloroform	1000	961		ug/Kg		96	74 - 120
Chloromethane	1000	785		ug/Kg		79	41 - 124
1,1-Dichloroethane	1000	1050		ug/Kg		105	72 - 120
1,2-Dichloroethane	1000	1020		ug/Kg		102	71 - 120
1,1-Dichloroethene	1000	943		ug/Kg		94	58 - 130
1,2-Dichloropropane	1000	1080		ug/Kg		108	78 - 122
cis-1,3-Dichloropropene	1000	738		ug/Kg		74	66 - 126
trans-1,3-Dichloropropene	1000	582		ug/Kg		58	55 - 121
Ethylbenzene	1000	964		ug/Kg		96	76 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-308992/2-A

Matrix: Solid

Analysis Batch: 309377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	2000	2150		ug/Kg		108	52 - 129
Methylene Chloride	1000	1030		ug/Kg		103	64 - 126
4-Methyl-2-pentanone (MIBK)	2000	2170		ug/Kg		109	65 - 131
Styrene	1000	942		ug/Kg		94	80 - 120
1,1,2,2-Tetrachloroethane	1000	896		ug/Kg		90	78 - 120
Tetrachloroethene	1000	1020		ug/Kg		102	68 - 122
Toluene	1000	1040		ug/Kg		104	74 - 120
Trichloroethene	1000	959		ug/Kg		96	73 - 123
Vinyl chloride	1000	887		ug/Kg		89	49 - 131
Xylenes, Total	2000	1970		ug/Kg		99	78 - 120
1,1,1-Trichloroethane	1000	791		ug/Kg		79	60 - 136
1,1,2-Trichloroethane	1000	1020		ug/Kg		102	80 - 120
Cyclohexane	1000	1030		ug/Kg		103	66 - 129
1,2-Dibromo-3-Chloropropane	1000	547		ug/Kg		55	40 - 133
1,2-Dibromoethane	1000	817		ug/Kg		82	80 - 120
Dichlorodifluoromethane	1000	697		ug/Kg		70	15 - 127
cis-1,2-Dichloroethene	1000	995		ug/Kg		99	78 - 120
trans-1,2-Dichloroethene	1000	988		ug/Kg		99	74 - 124
Isopropylbenzene	1000	979		ug/Kg		98	76 - 124
Methyl acetate	2000	2440		ug/Kg		122	63 - 126
Methyl tert-butyl ether	1000	1100		ug/Kg		110	68 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	1070		ug/Kg		107	64 - 125
1,2,4-Trichlorobenzene	1000	983		ug/Kg		98	60 - 124
1,2-Dichlorobenzene	1000	942		ug/Kg		94	75 - 120
1,3-Dichlorobenzene	1000	936		ug/Kg		94	72 - 120
1,4-Dichlorobenzene	1000	930		ug/Kg		93	71 - 120
Trichlorofluoromethane	1000	921		ug/Kg		92	28 - 152
Dibromochloromethane	1000	634		ug/Kg		63	46 - 125
Methylcyclohexane	1000	1010		ug/Kg		101	71 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		64 - 144
4-Bromofluorobenzene (Surr)	86		58 - 142
Toluene-d8 (Surr)	89		61 - 137
Dibromofluoromethane (Surr)	93		31 - 155

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-309410/22-A

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309410

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,2'-oxybis[1-chloropropane]	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,4,5-Trichlorophenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,4,6-Trichlorophenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-309410/22-A

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309410

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,4-Dimethylphenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,4-Dinitrophenol	150	U	150	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,4-Dinitrotoluene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2,6-Dinitrotoluene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2-Chloronaphthalene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2-Chlorophenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2-Methylnaphthalene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2-Methylphenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2-Nitroaniline	200	U	200	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
2-Nitrophenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
3,3'-Dichlorobenzidine	1600	U	1600	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
3-Nitroaniline	200	U	200	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4,6-Dinitro-2-methylphenol	150	U	150	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4-Bromophenyl phenyl ether	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4-Chloro-3-methylphenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4-Chloroaniline	200	U	200	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4-Chlorophenyl phenyl ether	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4-Nitroaniline	200	U	200	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
4-Nitrophenol	330	U	330	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Acenaphthene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Acenaphthylene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Acetophenone	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Anthracene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Atrazine	40	U	40	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Benzaldehyde	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Benzo[a]anthracene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Benzo[a]pyrene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Benzo[b]fluoranthene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Benzo[g,h,i]perylene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Benzo[k]fluoranthene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Bis(2-chloroethoxy)methane	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Bis(2-chloroethyl)ether	80	U	80	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Bis(2-ethylhexyl) phthalate	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Butyl benzyl phthalate	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Caprolactam	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Carbazole	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Chrysene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Dibenz(a,h)anthracene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Dibenzofuran	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Diethyl phthalate	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Dimethyl phthalate	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Di-n-butyl phthalate	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Di-n-octyl phthalate	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Fluoranthene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Fluorene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Hexachlorobenzene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Hexachlorobutadiene	40	U	40	ug/Kg		12/28/17 09:41	01/02/18 10:02	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-309410/22-A

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309410

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Hexachloroethane	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Indeno[1,2,3-cd]pyrene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Isophorone	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Naphthalene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Nitrobenzene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
N-Nitrosodi-n-propylamine	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
N-Nitrosodiphenylamine	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Pentachlorophenol	150	U	150	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Phenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Phenanthrene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
Pyrene	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1
3 & 4 Methylphenol	260	U	260	ug/Kg		12/28/17 09:41	01/02/18 10:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	97		32 - 120	12/28/17 09:41	01/02/18 10:02	1
2-Fluorophenol (Surr)	76		29 - 120	12/28/17 09:41	01/02/18 10:02	1
2,4,6-Tribromophenol (Surr)	55		10 - 120	12/28/17 09:41	01/02/18 10:02	1
Nitrobenzene-d5 (Surr)	79		30 - 120	12/28/17 09:41	01/02/18 10:02	1
Phenol-d5 (Surr)	86		29 - 120	12/28/17 09:41	01/02/18 10:02	1
Terphenyl-d14 (Surr)	109		41 - 120	12/28/17 09:41	01/02/18 10:02	1

Lab Sample ID: LCS 240-309410/23-A

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1'-Biphenyl	667	587		ug/Kg		88	48 - 120
2,2'-oxybis[1-chloropropane]	667	569		ug/Kg		85	37 - 120
2,4,5-Trichlorophenol	667	552		ug/Kg		83	34 - 120
2,4,6-Trichlorophenol	667	483		ug/Kg		72	19 - 120
2,4-Dichlorophenol	667	532		ug/Kg		80	48 - 120
2,4-Dimethylphenol	667	429		ug/Kg		64	37 - 120
2,4-Dinitrophenol	1330	550		ug/Kg		41	10 - 120
2,4-Dinitrotoluene	667	678		ug/Kg		102	53 - 120
2,6-Dinitrotoluene	667	641		ug/Kg		96	54 - 120
2-Chloronaphthalene	667	578		ug/Kg		87	49 - 120
2-Chlorophenol	667	518		ug/Kg		78	50 - 120
2-Methylnaphthalene	667	520		ug/Kg		78	49 - 120
2-Methylphenol	667	514		ug/Kg		77	49 - 120
2-Nitroaniline	667	683		ug/Kg		103	46 - 120
2-Nitrophenol	667	575		ug/Kg		86	46 - 120
3,3'-Dichlorobenzidine	1330	1200	J	ug/Kg		90	40 - 120
3-Nitroaniline	667	634		ug/Kg		95	48 - 120
4,6-Dinitro-2-methylphenol	1330	840		ug/Kg		63	18 - 120
4-Bromophenyl phenyl ether	667	541		ug/Kg		81	51 - 120
4-Chloro-3-methylphenol	667	579		ug/Kg		87	47 - 120
4-Chloroaniline	667	414		ug/Kg		62	37 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-309410/23-A

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorophenyl phenyl ether	667	577		ug/Kg		87	49 - 120
4-Nitroaniline	667	678		ug/Kg		102	49 - 120
4-Nitrophenol	1330	1220		ug/Kg		91	42 - 120
Acenaphthene	667	588		ug/Kg		88	48 - 120
Acenaphthylene	667	562		ug/Kg		84	46 - 120
Acetophenone	667	500		ug/Kg		75	46 - 120
Anthracene	667	586		ug/Kg		88	51 - 120
Atrazine	1330	1390		ug/Kg		104	57 - 120
Benzaldehyde	1330	1080		ug/Kg		81	48 - 120
Benzo[a]anthracene	667	623		ug/Kg		93	53 - 120
Benzo[a]pyrene	667	629		ug/Kg		94	50 - 120
Benzo[b]fluoranthene	667	657		ug/Kg		99	48 - 120
Benzo[g,h,i]perylene	667	629		ug/Kg		94	50 - 120
Benzo[k]fluoranthene	667	628		ug/Kg		94	51 - 120
Bis(2-chloroethoxy)methane	667	539		ug/Kg		81	50 - 120
Bis(2-chloroethyl)ether	667	525		ug/Kg		79	48 - 120
Bis(2-ethylhexyl) phthalate	667	769		ug/Kg		115	52 - 120
Butyl benzyl phthalate	667	730		ug/Kg		109	53 - 120
Caprolactam	1330	1160		ug/Kg		87	59 - 120
Carbazole	667	624		ug/Kg		94	56 - 120
Chrysene	667	604		ug/Kg		91	54 - 120
Dibenz(a,h)anthracene	667	586		ug/Kg		88	48 - 120
Dibenzofuran	667	573		ug/Kg		86	49 - 120
Diethyl phthalate	667	634		ug/Kg		95	52 - 120
Dimethyl phthalate	667	626		ug/Kg		94	53 - 120
Di-n-butyl phthalate	667	659		ug/Kg		99	56 - 120
Di-n-octyl phthalate	667	667		ug/Kg		100	42 - 120
Fluoranthene	667	598		ug/Kg		90	53 - 120
Fluorene	667	587		ug/Kg		88	50 - 120
Hexachlorobenzene	667	493		ug/Kg		74	46 - 120
Hexachlorobutadiene	667	465		ug/Kg		70	44 - 120
Hexachlorocyclopentadiene	667	405		ug/Kg		61	14 - 120
Hexachloroethane	667	458		ug/Kg		69	45 - 120
Indeno[1,2,3-cd]pyrene	667	631		ug/Kg		95	49 - 120
Isophorone	667	527		ug/Kg		79	47 - 120
Naphthalene	667	515		ug/Kg		77	48 - 120
Nitrobenzene	667	521		ug/Kg		78	48 - 120
N-Nitrosodi-n-propylamine	667	555		ug/Kg		83	49 - 120
N-Nitrosodiphenylamine	667	568		ug/Kg		85	53 - 120
Pentachlorophenol	1330	760		ug/Kg		57	14 - 120
Phenol	667	533		ug/Kg		80	49 - 120
Phenanthrene	667	555		ug/Kg		83	52 - 120
Pyrene	667	650		ug/Kg		98	55 - 120
3 & 4 Methylphenol	667	516		ug/Kg		77	50 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	94		32 - 120
2-Fluorophenol (Surr)	82		29 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-309410/23-A

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309410

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	60		10 - 120
Nitrobenzene-d5 (Surr)	79		30 - 120
Phenol-d5 (Surr)	87		29 - 120
Terphenyl-d14 (Surr)	105		41 - 120

Lab Sample ID: 240-89576-4 MS

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: S-58502-121817-SSH-1004

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1'-Biphenyl	300	U	745	636		ug/Kg	☼	85	33 - 120
2,2'-oxybis[1-chloropropane]	300	U	745	551		ug/Kg	☼	74	26 - 120
2,4,5-Trichlorophenol	300	U	745	706		ug/Kg	☼	95	20 - 120
2,4,6-Trichlorophenol	300	U	745	622		ug/Kg	☼	83	19 - 120
2,4-Dichlorophenol	300	U	745	579		ug/Kg	☼	78	32 - 120
2,4-Dimethylphenol	300	U	745	580		ug/Kg	☼	78	28 - 120
2,4-Dinitrophenol	170	U	1490	1090		ug/Kg	☼	73	10 - 120
2,4-Dinitrotoluene	300	U	745	765		ug/Kg	☼	103	38 - 120
2,6-Dinitrotoluene	300	U	745	732		ug/Kg	☼	98	43 - 120
2-Chloronaphthalene	300	U	745	630		ug/Kg	☼	85	35 - 120
2-Chlorophenol	300	U	745	510		ug/Kg	☼	68	30 - 120
2-Methylnaphthalene	300	U	745	526		ug/Kg	☼	71	31 - 120
2-Methylphenol	300	U	745	560		ug/Kg	☼	75	31 - 120
2-Nitroaniline	220	U	745	788		ug/Kg	☼	106	29 - 120
2-Nitrophenol	300	U	745	561		ug/Kg	☼	75	26 - 120
3,3'-Dichlorobenzidine	1800	U	1490	1800	U	ug/Kg	☼	93	10 - 120
3-Nitroaniline	220	U	745	652		ug/Kg	☼	87	21 - 120
4,6-Dinitro-2-methylphenol	170	U	1490	1110		ug/Kg	☼	75	10 - 120
4-Bromophenyl phenyl ether	300	U	745	662		ug/Kg	☼	89	44 - 120
4-Chloro-3-methylphenol	300	U	745	658		ug/Kg	☼	88	31 - 120
4-Chloroaniline	220	U	745	368		ug/Kg	☼	49	15 - 120
4-Chlorophenyl phenyl ether	300	U	745	669		ug/Kg	☼	90	41 - 120
4-Nitroaniline	220	U	745	684		ug/Kg	☼	92	23 - 120
4-Nitrophenol	370	U	1490	1440		ug/Kg	☼	97	32 - 120
Acenaphthene	300	U	745	646		ug/Kg	☼	87	36 - 120
Acenaphthylene	300	U	745	635		ug/Kg	☼	85	35 - 120
Acetophenone	300	U	745	480		ug/Kg	☼	64	31 - 120
Anthracene	300	U	745	687		ug/Kg	☼	92	42 - 120
Atrazine	45	U	1490	1660		ug/Kg	☼	111	41 - 120
Benzaldehyde	300	U	1490	1070		ug/Kg	☼	71	28 - 120
Benzo[a]anthracene	300	U	745	716		ug/Kg	☼	96	35 - 120
Benzo[a]pyrene	300	U	745	717		ug/Kg	☼	96	33 - 120
Benzo[b]fluoranthene	300	U	745	706		ug/Kg	☼	94	26 - 120
Benzo[g,h,i]perylene	300	U	745	744		ug/Kg	☼	99	16 - 120
Benzo[k]fluoranthene	300	U	745	672		ug/Kg	☼	90	33 - 120
Bis(2-chloroethoxy)methane	300	U	745	509		ug/Kg	☼	68	36 - 120
Bis(2-chloroethyl)ether	90	U	745	521		ug/Kg	☼	70	33 - 120
Bis(2-ethylhexyl) phthalate	300	U F1	745	942	F1	ug/Kg	☼	126	40 - 120

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-89576-4 MS

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: S-58502-121817-SSH-1004

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Butyl benzyl phthalate	300	U	745	851		ug/Kg	☼	114	46 - 120
Caprolactam	300	U	1490	1330		ug/Kg	☼	89	33 - 128
Carbazole	300	U	745	725		ug/Kg	☼	97	35 - 120
Chrysene	300	U	745	691		ug/Kg	☼	93	33 - 120
Dibenz(a,h)anthracene	300	U	745	687		ug/Kg	☼	92	30 - 120
Dibenzofuran	300	U	745	652		ug/Kg	☼	88	37 - 120
Diethyl phthalate	300	U	745	740		ug/Kg	☼	99	44 - 120
Dimethyl phthalate	300	U	745	717		ug/Kg	☼	96	42 - 120
Di-n-butyl phthalate	300	U	745	776		ug/Kg	☼	104	45 - 120
Di-n-octyl phthalate	300	U	745	750		ug/Kg	☼	101	35 - 120
Fluoranthene	300	U	745	699		ug/Kg	☼	93	26 - 121
Fluorene	300	U	745	669		ug/Kg	☼	90	36 - 120
Hexachlorobenzene	300	U	745	590		ug/Kg	☼	79	36 - 120
Hexachlorobutadiene	45	U	745	460		ug/Kg	☼	60	31 - 120
Hexachlorocyclopentadiene	300	U F2 F1	745	300	U F1	ug/Kg	☼	1	10 - 120
Hexachloroethane	300	U	745	451		ug/Kg	☼	61	15 - 120
Indeno[1,2,3-cd]pyrene	300	U	745	730		ug/Kg	☼	98	24 - 120
Isophorone	300	U	745	511		ug/Kg	☼	69	34 - 120
Naphthalene	300	U	745	497		ug/Kg	☼	67	29 - 120
Nitrobenzene	300	U	745	501		ug/Kg	☼	67	33 - 120
N-Nitrosodi-n-propylamine	300	U	745	540		ug/Kg	☼	72	32 - 120
N-Nitrosodiphenylamine	300	U	745	675		ug/Kg	☼	91	29 - 120
Pentachlorophenol	170	U	1490	723		ug/Kg	☼	48	10 - 120
Phenol	300	U	745	556		ug/Kg	☼	75	21 - 120
Phenanthrene	300	U	745	660		ug/Kg	☼	88	28 - 120
Pyrene	300	U	745	732		ug/Kg	☼	98	28 - 120
3 & 4 Methylphenol	300	U	745	558		ug/Kg	☼	75	33 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	92		32 - 120
2-Fluorophenol (Surr)	73		29 - 120
2,4,6-Tribromophenol (Surr)	75		10 - 120
Nitrobenzene-d5 (Surr)	68		30 - 120
Phenol-d5 (Surr)	80		29 - 120
Terphenyl-d14 (Surr)	108		41 - 120

Lab Sample ID: 240-89576-4 MSD

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: S-58502-121817-SSH-1004

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1'-Biphenyl	300	U	752	711		ug/Kg	☼	95	33 - 120	11	33
2,2'-oxybis[1-chloropropane]	300	U	752	636		ug/Kg	☼	85	26 - 120	14	31
2,4,5-Trichlorophenol	300	U	752	695		ug/Kg	☼	92	20 - 120	2	38
2,4,6-Trichlorophenol	300	U	752	654		ug/Kg	☼	87	19 - 120	5	36
2,4-Dichlorophenol	300	U	752	637		ug/Kg	☼	85	32 - 120	10	32
2,4-Dimethylphenol	300	U	752	649		ug/Kg	☼	86	28 - 120	11	35
2,4-Dinitrophenol	170	U	1500	1160		ug/Kg	☼	77	10 - 120	7	40

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-89576-4 MSD

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: S-58502-121817-SSH-1004

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	300	U	752	807		ug/Kg	☼	107	38 - 120	5	27
2,6-Dinitrotoluene	300	U	752	760		ug/Kg	☼	101	43 - 120	4	31
2-Chloronaphthalene	300	U	752	692		ug/Kg	☼	92	35 - 120	9	30
2-Chlorophenol	300	U	752	578		ug/Kg	☼	77	30 - 120	13	37
2-Methylnaphthalene	300	U	752	593		ug/Kg	☼	79	31 - 120	12	33
2-Methylphenol	300	U	752	604		ug/Kg	☼	80	31 - 120	8	36
2-Nitroaniline	220	U	752	838		ug/Kg	☼	111	29 - 120	6	31
2-Nitrophenol	300	U	752	654		ug/Kg	☼	87	26 - 120	15	38
3,3'-Dichlorobenzidine	1800	U	1500	1800	U	ug/Kg	☼	96	10 - 120	4	40
3-Nitroaniline	220	U	752	693		ug/Kg	☼	92	21 - 120	6	40
4,6-Dinitro-2-methylphenol	170	U	1500	1170		ug/Kg	☼	78	10 - 120	5	40
4-Bromophenyl phenyl ether	300	U	752	681		ug/Kg	☼	91	44 - 120	3	40
4-Chloro-3-methylphenol	300	U	752	698		ug/Kg	☼	93	31 - 120	6	25
4-Chloroaniline	220	U	752	447		ug/Kg	☼	59	15 - 120	19	36
4-Chlorophenyl phenyl ether	300	U	752	688		ug/Kg	☼	91	41 - 120	3	40
4-Nitroaniline	220	U	752	701		ug/Kg	☼	93	23 - 120	3	40
4-Nitrophenol	370	U	1500	1520		ug/Kg	☼	101	32 - 120	5	31
Acenaphthene	300	U	752	687		ug/Kg	☼	91	36 - 120	6	28
Acenaphthylene	300	U	752	666		ug/Kg	☼	89	35 - 120	5	26
Acetophenone	300	U	752	557		ug/Kg	☼	74	31 - 120	15	40
Anthracene	300	U	752	708		ug/Kg	☼	94	42 - 120	3	32
Atrazine	45	U	1500	1680		ug/Kg	☼	111	41 - 120	1	26
Benzaldehyde	300	U	1500	1220		ug/Kg	☼	81	28 - 120	14	40
Benzo[a]anthracene	300	U	752	749		ug/Kg	☼	100	35 - 120	5	40
Benzo[a]pyrene	300	U	752	737		ug/Kg	☼	97	33 - 120	3	40
Benzo[b]fluoranthene	300	U	752	732		ug/Kg	☼	97	26 - 120	4	40
Benzo[g,h,i]perylene	300	U	752	776		ug/Kg	☼	102	16 - 120	4	40
Benzo[k]fluoranthene	300	U	752	698		ug/Kg	☼	93	33 - 120	4	40
Bis(2-chloroethoxy)methane	300	U	752	602		ug/Kg	☼	80	36 - 120	17	33
Bis(2-chloroethyl)ether	90	U	752	582		ug/Kg	☼	77	33 - 120	11	36
Bis(2-ethylhexyl) phthalate	300	U F1	752	961	F1	ug/Kg	☼	128	40 - 120	2	28
Butyl benzyl phthalate	300	U	752	904		ug/Kg	☼	120	46 - 120	6	39
Caprolactam	300	U	1500	1440		ug/Kg	☼	95	33 - 128	8	40
Carbazole	300	U	752	739		ug/Kg	☼	98	35 - 120	2	34
Chrysene	300	U	752	724		ug/Kg	☼	96	33 - 120	5	40
Dibenz(a,h)anthracene	300	U	752	733		ug/Kg	☼	97	30 - 120	7	40
Dibenzofuran	300	U	752	687		ug/Kg	☼	91	37 - 120	5	28
Diethyl phthalate	300	U	752	751		ug/Kg	☼	100	44 - 120	2	26
Dimethyl phthalate	300	U	752	756		ug/Kg	☼	100	42 - 120	5	35
Di-n-butyl phthalate	300	U	752	798		ug/Kg	☼	106	45 - 120	3	28
Di-n-octyl phthalate	300	U	752	763		ug/Kg	☼	101	35 - 120	2	33
Fluoranthene	300	U	752	723		ug/Kg	☼	96	26 - 121	3	40
Fluorene	300	U	752	701		ug/Kg	☼	93	36 - 120	5	28
Hexachlorobenzene	300	U	752	608		ug/Kg	☼	81	36 - 120	3	25
Hexachlorobutadiene	45	U	752	547		ug/Kg	☼	71	31 - 120	17	35
Hexachlorocyclopentadiene	300	U F2 F1	752	300	U F1 F2	ug/Kg	☼	2	10 - 120	46	40
Hexachloroethane	300	U	752	518		ug/Kg	☼	69	15 - 120	14	40
Indeno[1,2,3-cd]pyrene	300	U	752	786		ug/Kg	☼	105	24 - 120	7	40

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-89576-4 MSD

Matrix: Solid

Analysis Batch: 309741

Client Sample ID: S-58502-121817-SSH-1004

Prep Type: Total/NA

Prep Batch: 309410

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isophorone	300	U	752	596		ug/Kg	☼	79	34 - 120	15	32
Naphthalene	300	U	752	573		ug/Kg	☼	76	29 - 120	14	34
Nitrobenzene	300	U	752	596		ug/Kg	☼	79	33 - 120	17	40
N-Nitrosodi-n-propylamine	300	U	752	623		ug/Kg	☼	83	32 - 120	14	32
N-Nitrosodiphenylamine	300	U	752	690		ug/Kg	☼	92	29 - 120	2	30
Pentachlorophenol	170	U	1500	612		ug/Kg	☼	41	10 - 120	17	40
Phenol	300	U	752	625		ug/Kg	☼	83	21 - 120	12	40
Phenanthrene	300	U	752	668		ug/Kg	☼	88	28 - 120	1	40
Pyrene	300	U	752	789		ug/Kg	☼	104	28 - 120	7	40
3 & 4 Methylphenol	300	U	752	601		ug/Kg	☼	80	33 - 120	7	29

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	100		32 - 120
2-Fluorophenol (Surr)	82		29 - 120
2,4,6-Tribromophenol (Surr)	77		10 - 120
Nitrobenzene-d5 (Surr)	79		30 - 120
Phenol-d5 (Surr)	88		29 - 120
Terphenyl-d14 (Surr)	115		41 - 120

Lab Sample ID: MB 240-309572/22-A

Matrix: Solid

Analysis Batch: 309732

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309572

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,2'-oxybis[1-chloropropane]	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,4,5-Trichlorophenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,4,6-Trichlorophenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,4-Dichlorophenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,4-Dimethylphenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,4-Dinitrophenol	150	U	150	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,4-Dinitrotoluene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2,6-Dinitrotoluene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2-Chloronaphthalene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2-Chlorophenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2-Methylnaphthalene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2-Methylphenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2-Nitroaniline	200	U	200	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
2-Nitrophenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
3,3'-Dichlorobenzidine	1600	U	1600	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
3-Nitroaniline	200	U	200	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4,6-Dinitro-2-methylphenol	150	U	150	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4-Bromophenyl phenyl ether	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4-Chloro-3-methylphenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4-Chloroaniline	200	U	200	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4-Chlorophenyl phenyl ether	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4-Nitroaniline	200	U	200	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
4-Nitrophenol	330	U	330	ug/Kg		12/29/17 10:29	01/02/18 13:21	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-309572/22-A

Matrix: Solid

Analysis Batch: 309732

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309572

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Acenaphthylene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Acetophenone	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Anthracene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Atrazine	40	U	40	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Benzaldehyde	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Benzo[a]anthracene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Benzo[a]pyrene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Benzo[b]fluoranthene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Benzo[g,h,i]perylene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Benzo[k]fluoranthene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Bis(2-chloroethoxy)methane	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Bis(2-chloroethyl)ether	80	U	80	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Bis(2-ethylhexyl) phthalate	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Butyl benzyl phthalate	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Caprolactam	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Carbazole	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Chrysene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Dibenz(a,h)anthracene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Dibenzofuran	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Diethyl phthalate	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Dimethyl phthalate	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Di-n-butyl phthalate	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Di-n-octyl phthalate	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Fluoranthene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Fluorene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Hexachlorobenzene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Hexachlorobutadiene	40	U	40	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Hexachlorocyclopentadiene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Hexachloroethane	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Indeno[1,2,3-cd]pyrene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Isophorone	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Naphthalene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Nitrobenzene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
N-Nitrosodi-n-propylamine	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
N-Nitrosodiphenylamine	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Pentachlorophenol	150	U	150	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Phenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Phenanthrene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
Pyrene	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1
3 & 4 Methylphenol	260	U	260	ug/Kg		12/29/17 10:29	01/02/18 13:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		32 - 120	12/29/17 10:29	01/02/18 13:21	1
2-Fluorophenol (Surr)	58		29 - 120	12/29/17 10:29	01/02/18 13:21	1
2,4,6-Tribromophenol (Surr)	33		10 - 120	12/29/17 10:29	01/02/18 13:21	1
Nitrobenzene-d5 (Surr)	67		30 - 120	12/29/17 10:29	01/02/18 13:21	1
Phenol-d5 (Surr)	66		29 - 120	12/29/17 10:29	01/02/18 13:21	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-309572/22-A

Matrix: Solid

Analysis Batch: 309732

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309572

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14 (Surr)	100		41 - 120	12/29/17 10:29	01/02/18 13:21	1

Lab Sample ID: LCS 240-309572/23-A

Matrix: Solid

Analysis Batch: 309732

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	667	583		ug/Kg		87	48 - 120
2,2'-oxybis[1-chloropropane]	667	502		ug/Kg		75	37 - 120
2,4,5-Trichlorophenol	667	551		ug/Kg		83	34 - 120
2,4,6-Trichlorophenol	667	433		ug/Kg		65	19 - 120
2,4-Dichlorophenol	667	510		ug/Kg		77	48 - 120
2,4-Dimethylphenol	667	389		ug/Kg		58	37 - 120
2,4-Dinitrophenol	1330	488		ug/Kg		37	10 - 120
2,4-Dinitrotoluene	667	645		ug/Kg		97	53 - 120
2,6-Dinitrotoluene	667	650		ug/Kg		97	54 - 120
2-Chloronaphthalene	667	573		ug/Kg		86	49 - 120
2-Chlorophenol	667	506		ug/Kg		76	50 - 120
2-Methylnaphthalene	667	517		ug/Kg		78	49 - 120
2-Methylphenol	667	499		ug/Kg		75	49 - 120
2-Nitroaniline	667	675		ug/Kg		101	46 - 120
2-Nitrophenol	667	509		ug/Kg		76	46 - 120
3,3'-Dichlorobenzidine	1330	988	J	ug/Kg		74	40 - 120
3-Nitroaniline	667	566		ug/Kg		85	48 - 120
4,6-Dinitro-2-methylphenol	1330	719		ug/Kg		54	18 - 120
4-Bromophenyl phenyl ether	667	660		ug/Kg		99	51 - 120
4-Chloro-3-methylphenol	667	550		ug/Kg		82	47 - 120
4-Chloroaniline	667	377		ug/Kg		56	37 - 120
4-Chlorophenyl phenyl ether	667	618		ug/Kg		93	49 - 120
4-Nitroaniline	667	657		ug/Kg		99	49 - 120
4-Nitrophenol	1330	1180		ug/Kg		88	42 - 120
Acenaphthene	667	593		ug/Kg		89	48 - 120
Acenaphthylene	667	543		ug/Kg		81	46 - 120
Acetophenone	667	479		ug/Kg		72	46 - 120
Anthracene	667	613		ug/Kg		92	51 - 120
Atrazine	1330	1650	*	ug/Kg		124	57 - 120
Benzaldehyde	1330	1080		ug/Kg		81	48 - 120
Benzo[a]anthracene	667	631		ug/Kg		95	53 - 120
Benzo[a]pyrene	667	620		ug/Kg		93	50 - 120
Benzo[b]fluoranthene	667	648		ug/Kg		97	48 - 120
Benzo[g,h,i]perylene	667	617		ug/Kg		93	50 - 120
Benzo[k]fluoranthene	667	625		ug/Kg		94	51 - 120
Bis(2-chloroethoxy)methane	667	514		ug/Kg		77	50 - 120
Bis(2-chloroethyl)ether	667	471		ug/Kg		71	48 - 120
Bis(2-ethylhexyl) phthalate	667	661		ug/Kg		99	52 - 120
Butyl benzyl phthalate	667	676		ug/Kg		101	53 - 120
Caprolactam	1330	1160		ug/Kg		87	59 - 120
Carbazole	667	676		ug/Kg		101	56 - 120

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-309572/23-A

Matrix: Solid

Analysis Batch: 309732

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	667	638		ug/Kg		96	54 - 120
Dibenz(a,h)anthracene	667	619		ug/Kg		93	48 - 120
Dibenzofuran	667	593		ug/Kg		89	49 - 120
Diethyl phthalate	667	643		ug/Kg		96	52 - 120
Dimethyl phthalate	667	635		ug/Kg		95	53 - 120
Di-n-butyl phthalate	667	734		ug/Kg		110	56 - 120
Di-n-octyl phthalate	667	547		ug/Kg		82	42 - 120
Fluoranthene	667	714		ug/Kg		107	53 - 120
Fluorene	667	626		ug/Kg		94	50 - 120
Hexachlorobenzene	667	685		ug/Kg		103	46 - 120
Hexachlorobutadiene	667	478		ug/Kg		72	44 - 120
Hexachlorocyclopentadiene	667	424		ug/Kg		64	14 - 120
Hexachloroethane	667	465		ug/Kg		70	45 - 120
Indeno[1,2,3-cd]pyrene	667	624		ug/Kg		94	49 - 120
Isophorone	667	512		ug/Kg		77	47 - 120
Naphthalene	667	494		ug/Kg		74	48 - 120
Nitrobenzene	667	509		ug/Kg		76	48 - 120
N-Nitrosodi-n-propylamine	667	520		ug/Kg		78	49 - 120
N-Nitrosodiphenylamine	667	648		ug/Kg		97	53 - 120
Pentachlorophenol	1330	752		ug/Kg		56	14 - 120
Phenol	667	512		ug/Kg		77	49 - 120
Phenanthrene	667	589		ug/Kg		88	52 - 120
Pyrene	667	656		ug/Kg		98	55 - 120
3 & 4 Methylphenol	667	514		ug/Kg		77	50 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	95		32 - 120
2-Fluorophenol (Surr)	84		29 - 120
2,4,6-Tribromophenol (Surr)	62		10 - 120
Nitrobenzene-d5 (Surr)	84		30 - 120
Phenol-d5 (Surr)	84		29 - 120
Terphenyl-d14 (Surr)	112		41 - 120

Lab Sample ID: 240-89576-11 MS

Matrix: Solid

Analysis Batch: 310043

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	310	U	782	563		ug/Kg	☼	72	33 - 120
2,2'-oxybis[1-chloropropane]	310	U	782	403		ug/Kg	☼	51	26 - 120
2,4,5-Trichlorophenol	310	U	782	582		ug/Kg	☼	74	20 - 120
2,4,6-Trichlorophenol	310	U	782	520		ug/Kg	☼	67	19 - 120
2,4-Dichlorophenol	310	U	782	543		ug/Kg	☼	69	32 - 120
2,4-Dimethylphenol	310	U	782	506		ug/Kg	☼	65	28 - 120
2,4-Dinitrophenol	180	U	1560	403		ug/Kg	☼	26	10 - 120
2,4-Dinitrotoluene	310	U	782	652		ug/Kg	☼	83	38 - 120
2,6-Dinitrotoluene	310	U	782	654		ug/Kg	☼	84	43 - 120
2-Chloronaphthalene	310	U	782	567		ug/Kg	☼	72	35 - 120

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-89576-11 MS

Matrix: Solid

Analysis Batch: 310043

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
2-Chlorophenol	310	U	782	450		ug/Kg	☼	58	30 - 120
2-Methylnaphthalene	310	U	782	496		ug/Kg	☼	63	31 - 120
2-Methylphenol	310	U	782	462		ug/Kg	☼	59	31 - 120
2-Nitroaniline	240	U	782	628		ug/Kg	☼	80	29 - 120
2-Nitrophenol	310	U	782	462		ug/Kg	☼	59	26 - 120
3,3'-Dichlorobenzidine	1900	U	1560	1900	U	ug/Kg	☼	62	10 - 120
3-Nitroaniline	240	U	782	488		ug/Kg	☼	62	21 - 120
4,6-Dinitro-2-methylphenol	180	U	1560	445		ug/Kg	☼	28	10 - 120
4-Bromophenyl phenyl ether	310	U	782	608		ug/Kg	☼	78	44 - 120
4-Chloro-3-methylphenol	310	U	782	586		ug/Kg	☼	75	31 - 120
4-Chloroaniline	240	U	782	324		ug/Kg	☼	41	15 - 120
4-Chlorophenyl phenyl ether	310	U	782	621		ug/Kg	☼	79	41 - 120
4-Nitroaniline	240	U	782	570		ug/Kg	☼	73	23 - 120
4-Nitrophenol	390	U	1560	1090		ug/Kg	☼	70	32 - 120
Acenaphthene	310	U	782	586		ug/Kg	☼	75	36 - 120
Acenaphthylene	310	U	782	556		ug/Kg	☼	71	35 - 120
Acetophenone	310	U	782	422		ug/Kg	☼	54	31 - 120
Anthracene	310	U	782	608		ug/Kg	☼	78	42 - 120
Atrazine	47	U *	1560	1450		ug/Kg	☼	93	41 - 120
Benzaldehyde	310	U	1560	927		ug/Kg	☼	59	28 - 120
Benzo[a]anthracene	310	U	782	624		ug/Kg	☼	79	35 - 120
Benzo[a]pyrene	310	U	782	618		ug/Kg	☼	78	33 - 120
Benzo[b]fluoranthene	310	U	782	654		ug/Kg	☼	82	26 - 120
Benzo[g,h,i]perylene	310	U	782	408		ug/Kg	☼	51	16 - 120
Benzo[k]fluoranthene	310	U	782	632		ug/Kg	☼	80	33 - 120
Bis(2-chloroethoxy)methane	310	U	782	466		ug/Kg	☼	60	36 - 120
Bis(2-chloroethyl)ether	94	U	782	403		ug/Kg	☼	52	33 - 120
Bis(2-ethylhexyl) phthalate	310	U	782	706		ug/Kg	☼	90	40 - 120
Butyl benzyl phthalate	310	U	782	675		ug/Kg	☼	86	46 - 120
Caprolactam	310	U	1560	1180		ug/Kg	☼	75	33 - 128
Carbazole	310	U	782	608		ug/Kg	☼	78	35 - 120
Chrysene	310	U	782	623		ug/Kg	☼	78	33 - 120
Dibenz(a,h)anthracene	310	U	782	471		ug/Kg	☼	60	30 - 120
Dibenzofuran	310	U	782	596		ug/Kg	☼	76	37 - 120
Diethyl phthalate	310	U	782	640		ug/Kg	☼	79	44 - 120
Dimethyl phthalate	310	U	782	625		ug/Kg	☼	80	42 - 120
Di-n-butyl phthalate	310	U	782	702		ug/Kg	☼	90	45 - 120
Di-n-octyl phthalate	310	U	782	653		ug/Kg	☼	84	35 - 120
Fluoranthene	310	U	782	685		ug/Kg	☼	85	26 - 121
Fluorene	310	U	782	623		ug/Kg	☼	80	36 - 120
Hexachlorobenzene	310	U	782	617		ug/Kg	☼	79	36 - 120
Hexachlorobutadiene	47	U	782	451		ug/Kg	☼	58	31 - 120
Hexachlorocyclopentadiene	310	U F1	782	310	U F1	ug/Kg	☼	0	10 - 120
Hexachloroethane	310	U	782	320		ug/Kg	☼	41	15 - 120
Indeno[1,2,3-cd]pyrene	310	U	782	464		ug/Kg	☼	59	24 - 120
Isophorone	310	U	782	461		ug/Kg	☼	59	34 - 120
Naphthalene	310	U	782	446		ug/Kg	☼	57	29 - 120
Nitrobenzene	310	U	782	452		ug/Kg	☼	58	33 - 120

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-89576-11 MS

Matrix: Solid

Analysis Batch: 310043

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
N-Nitrosodi-n-propylamine	310	U	782	440		ug/Kg	☼	56	32 - 120
N-Nitrosodiphenylamine	310	U	782	591		ug/Kg	☼	76	29 - 120
Pentachlorophenol	180	U	1560	528		ug/Kg	☼	34	10 - 120
Phenol	310	U	782	448		ug/Kg	☼	57	21 - 120
Phenanthrene	310	U	782	588		ug/Kg	☼	74	28 - 120
Pyrene	310	U	782	653		ug/Kg	☼	81	28 - 120
3 & 4 Methylphenol	310	U	782	475		ug/Kg	☼	61	33 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	77		32 - 120
2-Fluorophenol (Surr)	61		29 - 120
2,4,6-Tribromophenol (Surr)	67		10 - 120
Nitrobenzene-d5 (Surr)	62		30 - 120
Phenol-d5 (Surr)	64		29 - 120
Terphenyl-d14 (Surr)	91		41 - 120

Lab Sample ID: 240-89576-11 MSD

Matrix: Solid

Analysis Batch: 310043

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1'-Biphenyl	310	U	773	577		ug/Kg	☼	75	33 - 120	3	33
2,2'-oxybis[1-chloropropane]	310	U	773	454		ug/Kg	☼	59	26 - 120	12	31
2,4,5-Trichlorophenol	310	U	773	564		ug/Kg	☼	73	20 - 120	3	38
2,4,6-Trichlorophenol	310	U	773	531		ug/Kg	☼	69	19 - 120	2	36
2,4-Dichlorophenol	310	U	773	548		ug/Kg	☼	71	32 - 120	1	32
2,4-Dimethylphenol	310	U	773	518		ug/Kg	☼	67	28 - 120	2	35
2,4-Dinitrophenol	180	U	1550	368		ug/Kg	☼	24	10 - 120	9	40
2,4-Dinitrotoluene	310	U	773	644		ug/Kg	☼	83	38 - 120	1	27
2,6-Dinitrotoluene	310	U	773	628		ug/Kg	☼	81	43 - 120	4	31
2-Chloronaphthalene	310	U	773	574		ug/Kg	☼	74	35 - 120	1	30
2-Chlorophenol	310	U	773	506		ug/Kg	☼	66	30 - 120	12	37
2-Methylnaphthalene	310	U	773	531		ug/Kg	☼	69	31 - 120	7	33
2-Methylphenol	310	U	773	503		ug/Kg	☼	65	31 - 120	9	36
2-Nitroaniline	240	U	773	619		ug/Kg	☼	80	29 - 120	1	31
2-Nitrophenol	310	U	773	501		ug/Kg	☼	65	26 - 120	8	38
3,3'-Dichlorobenzidine	1900	U	1550	1900	U	ug/Kg	☼	62	10 - 120	1	40
3-Nitroaniline	240	U	773	478		ug/Kg	☼	62	21 - 120	2	40
4,6-Dinitro-2-methylphenol	180	U	1550	414		ug/Kg	☼	27	10 - 120	7	40
4-Bromophenyl phenyl ether	310	U	773	612		ug/Kg	☼	79	44 - 120	1	40
4-Chloro-3-methylphenol	310	U	773	574		ug/Kg	☼	74	31 - 120	2	25
4-Chloroaniline	240	U	773	320		ug/Kg	☼	41	15 - 120	1	36
4-Chlorophenyl phenyl ether	310	U	773	627		ug/Kg	☼	81	41 - 120	1	40
4-Nitroaniline	240	U	773	552		ug/Kg	☼	71	23 - 120	3	40
4-Nitrophenol	390	U	1550	1110		ug/Kg	☼	72	32 - 120	2	31
Acenaphthene	310	U	773	585		ug/Kg	☼	76	36 - 120	0	28
Acenaphthylene	310	U	773	551		ug/Kg	☼	71	35 - 120	1	26
Acetophenone	310	U	773	477		ug/Kg	☼	62	31 - 120	12	40

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QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-89576-11 MSD

Matrix: Solid

Analysis Batch: 310043

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Anthracene	310	U	773	597		ug/Kg	☼	77	42 - 120	2	32
Atrazine	47	U *	1550	1390		ug/Kg	☼	90	41 - 120	4	26
Benzaldehyde	310	U	1550	1030		ug/Kg	☼	67	28 - 120	10	40
Benzo[a]anthracene	310	U	773	621		ug/Kg	☼	79	35 - 120	1	40
Benzo[a]pyrene	310	U	773	616		ug/Kg	☼	79	33 - 120	0	40
Benzo[b]fluoranthene	310	U	773	658		ug/Kg	☼	83	26 - 120	1	40
Benzo[g,h,i]perylene	310	U	773	390		ug/Kg	☼	50	16 - 120	5	40
Benzo[k]fluoranthene	310	U	773	629		ug/Kg	☼	81	33 - 120	0	40
Bis(2-chloroethoxy)methane	310	U	773	509		ug/Kg	☼	66	36 - 120	9	33
Bis(2-chloroethyl)ether	94	U	773	453		ug/Kg	☼	59	33 - 120	12	36
Bis(2-ethylhexyl) phthalate	310	U	773	684		ug/Kg	☼	89	40 - 120	3	28
Butyl benzyl phthalate	310	U	773	678		ug/Kg	☼	88	46 - 120	0	39
Caprolactam	310	U	1550	1150		ug/Kg	☼	74	33 - 128	2	40
Carbazole	310	U	773	597		ug/Kg	☼	77	35 - 120	2	34
Chrysene	310	U	773	607		ug/Kg	☼	77	33 - 120	3	40
Dibenz(a,h)anthracene	310	U	773	461		ug/Kg	☼	60	30 - 120	2	40
Dibenzofuran	310	U	773	593		ug/Kg	☼	77	37 - 120	1	28
Diethyl phthalate	310	U	773	636		ug/Kg	☼	79	44 - 120	1	26
Dimethyl phthalate	310	U	773	612		ug/Kg	☼	79	42 - 120	2	35
Di-n-butyl phthalate	310	U	773	690		ug/Kg	☼	89	45 - 120	2	28
Di-n-octyl phthalate	310	U	773	662		ug/Kg	☼	86	35 - 120	1	33
Fluoranthene	310	U	773	681		ug/Kg	☼	85	26 - 121	1	40
Fluorene	310	U	773	618		ug/Kg	☼	80	36 - 120	1	28
Hexachlorobenzene	310	U	773	608		ug/Kg	☼	79	36 - 120	1	25
Hexachlorobutadiene	47	U	773	498		ug/Kg	☼	64	31 - 120	10	35
Hexachlorocyclopentadiene	310	U F1	773	310	U F1	ug/Kg	☼	0	10 - 120	NC	40
Hexachloroethane	310	U	773	351		ug/Kg	☼	45	15 - 120	9	40
Indeno[1,2,3-cd]pyrene	310	U	773	446		ug/Kg	☼	57	24 - 120	4	40
Isophorone	310	U	773	497		ug/Kg	☼	64	34 - 120	7	32
Naphthalene	310	U	773	486		ug/Kg	☼	63	29 - 120	9	34
Nitrobenzene	310	U	773	490		ug/Kg	☼	63	33 - 120	8	40
N-Nitrosodi-n-propylamine	310	U	773	506		ug/Kg	☼	66	32 - 120	14	32
N-Nitrosodiphenylamine	310	U	773	581		ug/Kg	☼	75	29 - 120	2	30
Pentachlorophenol	180	U	1550	571		ug/Kg	☼	37	10 - 120	8	40
Phenol	310	U	773	498		ug/Kg	☼	65	21 - 120	11	40
Phenanthrene	310	U	773	585		ug/Kg	☼	75	28 - 120	0	40
Pyrene	310	U	773	648		ug/Kg	☼	81	28 - 120	1	40
3 & 4 Methylphenol	310	U	773	533		ug/Kg	☼	69	33 - 120	11	29

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		32 - 120
2-Fluorophenol (Surr)	70		29 - 120
2,4,6-Tribromophenol (Surr)	70		10 - 120
Nitrobenzene-d5 (Surr)	69		30 - 120
Phenol-d5 (Surr)	72		29 - 120
Terphenyl-d14 (Surr)	89		41 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 240-309456/23-A

Matrix: Solid

Analysis Batch: 309735

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
4,4'-DDE	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
4,4'-DDT	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Aldrin	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
alpha-BHC	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
alpha-Chlordane	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
beta-BHC	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
delta-BHC	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Dieldrin	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Endosulfan I	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Endosulfan II	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Endosulfan sulfate	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Endrin	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Endrin aldehyde	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Endrin ketone	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
gamma-BHC (Lindane)	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
gamma-Chlordane	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Heptachlor	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Heptachlor epoxide	5.1	U	5.1	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Methoxychlor	9.9	U	9.9	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Toxaphene	100	U	100	ug/Kg		12/28/17 12:15	01/02/18 11:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	97		13 - 135			12/28/17 12:15	01/02/18 11:06	1
Tetrachloro-m-xylene	90		30 - 120			12/28/17 12:15	01/02/18 11:06	1

Lab Sample ID: LCS 240-309456/24-A

Matrix: Solid

Analysis Batch: 309735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	100	109		ug/Kg		109	48 - 120
4,4'-DDE	100	108		ug/Kg		108	46 - 120
4,4'-DDT	100	110		ug/Kg		110	48 - 120
Aldrin	100	104		ug/Kg		104	36 - 120
alpha-BHC	100	109		ug/Kg		109	48 - 120
alpha-Chlordane	100	99.7		ug/Kg		100	44 - 120
beta-BHC	100	131	*	ug/Kg		131	45 - 120
delta-BHC	100	112		ug/Kg		112	33 - 120
Dieldrin	100	101		ug/Kg		101	47 - 120
Endosulfan I	100	81.9		ug/Kg		82	28 - 120
Endosulfan II	100	91.7		ug/Kg		92	39 - 120
Endosulfan sulfate	100	129	*	ug/Kg		129	46 - 120
Endrin	100	113		ug/Kg		113	28 - 136
Endrin aldehyde	100	118		ug/Kg		118	38 - 120
Endrin ketone	100	103		ug/Kg		103	44 - 120
gamma-BHC (Lindane)	100	95.3		ug/Kg		95	39 - 120
gamma-Chlordane	100	93.0		ug/Kg		93	46 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 240-309456/24-A

Matrix: Solid

Analysis Batch: 309735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Heptachlor	100	97.5		ug/Kg		98	48 - 120
Heptachlor epoxide	100	101		ug/Kg		101	51 - 120
Methoxychlor	100	105		ug/Kg		105	38 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	114		13 - 135
Tetrachloro-m-xylene	100		30 - 120

Lab Sample ID: 240-89576-11 MS

Matrix: Solid

Analysis Batch: 309842

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	30	U	115	92.4		ug/Kg	☼	80	27 - 120
4,4'-DDE	30	U	115	93.3		ug/Kg	☼	81	25 - 120
4,4'-DDT	30	U	115	85.5		ug/Kg	☼	74	19 - 125
Aldrin	30	U	115	96.6		ug/Kg	☼	84	15 - 120
alpha-BHC	30	U	115	108		ug/Kg	☼	93	30 - 120
alpha-Chlordane	30	U	115	87.2		ug/Kg	☼	76	28 - 120
beta-BHC	30	U *	115	137		ug/Kg	☼	118	20 - 120
delta-BHC	30	U	115	112		ug/Kg	☼	97	20 - 120
Dieldrin	30	U	115	91.5		ug/Kg	☼	79	29 - 120
Endosulfan I	30	U	115	73.0		ug/Kg	☼	63	10 - 120
Endosulfan II	30	U	115	75.9		ug/Kg	☼	66	21 - 120
Endosulfan sulfate	30	U *	115	106		ug/Kg	☼	92	27 - 120
Endrin	30	U	115	103		ug/Kg	☼	89	26 - 129
Endrin aldehyde	30	U	115	88.1		ug/Kg	☼	76	18 - 120
Endrin ketone	30	U	115	83.6		ug/Kg	☼	72	28 - 120
gamma-BHC (Lindane)	30	U	115	94.6		ug/Kg	☼	82	27 - 120
gamma-Chlordane	30	U	115	82.0	p	ug/Kg	☼	71	29 - 120
Heptachlor	30	U	115	111		ug/Kg	☼	96	35 - 120
Heptachlor epoxide	30	U	115	95.1		ug/Kg	☼	82	32 - 120
Methoxychlor	58	U	115	94.8	p	ug/Kg	☼	82	26 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	83		13 - 135
Tetrachloro-m-xylene	110		30 - 120

Lab Sample ID: 240-89576-11 MSD

Matrix: Solid

Analysis Batch: 309842

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	30	U	116	129		ug/Kg	☼	112	27 - 120	33	40
4,4'-DDE	30	U	116	124		ug/Kg	☼	107	25 - 120	28	40
4,4'-DDT	30	U	116	121		ug/Kg	☼	104	19 - 125	34	40
Aldrin	30	U	116	122		ug/Kg	☼	105	15 - 120	23	40
alpha-BHC	30	U	116	137		ug/Kg	☼	118	30 - 120	24	40

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 240-89576-11 MSD

Matrix: Solid

Analysis Batch: 309842

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 309456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
alpha-Chlordane	30	U	116	116		ug/Kg	☼	100	28 - 120	28	40
beta-BHC	30	U *	116	161	F1	ug/Kg	☼	139	20 - 120	17	40
delta-BHC	30	U	116	138		ug/Kg	☼	119	20 - 120	21	40
Dieldrin	30	U	116	123		ug/Kg	☼	106	29 - 120	29	40
Endosulfan I	30	U	116	97.2		ug/Kg	☼	84	10 - 120	28	40
Endosulfan II	30	U	116	106		ug/Kg	☼	91	21 - 120	33	40
Endosulfan sulfate	30	U *	116	148	F1	ug/Kg	☼	128	27 - 120	33	40
Endrin	30	U	116	142		ug/Kg	☼	122	26 - 129	32	40
Endrin aldehyde	30	U	116	135	F2	ug/Kg	☼	116	18 - 120	42	40
Endrin ketone	30	U	116	121		ug/Kg	☼	104	28 - 120	36	40
gamma-BHC (Lindane)	30	U	116	119		ug/Kg	☼	102	27 - 120	23	40
gamma-Chlordane	30	U	116	106	p	ug/Kg	☼	91	29 - 120	25	40
Heptachlor	30	U	116	148	F1	ug/Kg	☼	127	35 - 120	28	40
Heptachlor epoxide	30	U	116	123		ug/Kg	☼	106	32 - 120	26	40
Methoxychlor	58	U	116	129	p	ug/Kg	☼	111	26 - 120	30	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	113		13 - 135
Tetrachloro-m-xylene	116		30 - 120

Lab Sample ID: MB 240-309571/6-A

Matrix: Solid

Analysis Batch: 309842

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309571

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
4,4'-DDE	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
4,4'-DDT	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Aldrin	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
alpha-BHC	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
alpha-Chlordane	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
beta-BHC	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
delta-BHC	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Dieldrin	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Endosulfan I	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Endosulfan II	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Endosulfan sulfate	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Endrin	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Endrin aldehyde	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Endrin ketone	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
gamma-BHC (Lindane)	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
gamma-Chlordane	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Heptachlor	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Heptachlor epoxide	5.1	U	5.1	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Methoxychlor	9.9	U	9.9	ug/Kg		12/29/17 10:04	01/02/18 18:52	1
Toxaphene	100	U	100	ug/Kg		12/29/17 10:04	01/02/18 18:52	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 240-309571/6-A

Matrix: Solid

Analysis Batch: 309842

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309571

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		13 - 135	12/29/17 10:04	01/02/18 18:52	1
Tetrachloro-m-xylene	81		30 - 120	12/29/17 10:04	01/02/18 18:52	1

Lab Sample ID: LCS 240-309571/7-A

Matrix: Solid

Analysis Batch: 309842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	100	96.1		ug/Kg		96	48 - 120
4,4'-DDE	100	92.3		ug/Kg		92	46 - 120
4,4'-DDT	100	95.4		ug/Kg		95	48 - 120
Aldrin	100	88.9		ug/Kg		89	36 - 120
alpha-BHC	100	96.7		ug/Kg		97	48 - 120
alpha-Chlordane	100	85.8		ug/Kg		86	44 - 120
beta-BHC	100	99.9		ug/Kg		100	45 - 120
delta-BHC	100	98.8		ug/Kg		99	33 - 120
Dieldrin	100	89.5		ug/Kg		90	47 - 120
Endosulfan I	100	70.4		ug/Kg		70	28 - 120
Endosulfan II	100	78.5		ug/Kg		79	39 - 120
Endosulfan sulfate	100	114		ug/Kg		114	46 - 120
Endrin	100	104		ug/Kg		104	28 - 136
Endrin aldehyde	100	94.4		ug/Kg		94	38 - 120
Endrin ketone	100	92.2		ug/Kg		92	44 - 120
gamma-BHC (Lindane)	100	88.5		ug/Kg		89	39 - 120
gamma-Chlordane	100	77.4		ug/Kg		77	46 - 120
Heptachlor	100	92.7		ug/Kg		93	48 - 120
Heptachlor epoxide	100	89.5		ug/Kg		90	51 - 120
Methoxychlor	100	96.0		ug/Kg		96	38 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	96		13 - 135
Tetrachloro-m-xylene	90		30 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-308659/22-A

Matrix: Solid

Analysis Batch: 308794

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308659

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1
Aroclor-1221	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1
Aroclor-1232	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1
Aroclor-1242	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1
Aroclor-1248	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1
Aroclor-1254	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1
Aroclor-1260	50	U	50	ug/Kg		12/21/17 09:03	12/22/17 17:39	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 240-308659/22-A
Matrix: Solid
Analysis Batch: 308794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 308659

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		14 - 128	12/21/17 09:03	12/22/17 17:39	1
DCB Decachlorobiphenyl	93		10 - 132	12/21/17 09:03	12/22/17 17:39	1

Lab Sample ID: LCS 240-308659/23-A
Matrix: Solid
Analysis Batch: 308794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor-1016	1000	741		ug/Kg		74	47 - 120
Aroclor-1260	1000	973		ug/Kg		97	46 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	80		14 - 128
DCB Decachlorobiphenyl	97		10 - 132

Lab Sample ID: 240-89576-11 MS
Matrix: Solid
Analysis Batch: 308794

Client Sample ID: S-58502-121817-SSH-1011
Prep Type: Total/NA
Prep Batch: 308659

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aroclor-1016	59	U	1160	922		ug/Kg	☼	80	31 - 120
Aroclor-1260	59	U	1160	1050		ug/Kg	☼	91	21 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	92		14 - 128
DCB Decachlorobiphenyl	106		10 - 132

Lab Sample ID: 240-89576-11 MSD
Matrix: Solid
Analysis Batch: 308794

Client Sample ID: S-58502-121817-SSH-1011
Prep Type: Total/NA
Prep Batch: 308659

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aroclor-1016	59	U	1180	986		ug/Kg	☼	83	31 - 120	7	30
Aroclor-1260	59	U	1180	1210		ug/Kg	☼	102	21 - 122	14	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	100		14 - 128
DCB Decachlorobiphenyl	92		10 - 132

Lab Sample ID: MB 240-309467/23-A
Matrix: Solid
Analysis Batch: 309653

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309467

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1
Aroclor-1221	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1
Aroclor-1232	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 240-309467/23-A

Matrix: Solid

Analysis Batch: 309653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309467

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1242	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1
Aroclor-1248	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1
Aroclor-1254	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1
Aroclor-1260	50	U	50	ug/Kg		12/28/17 12:57	12/30/17 15:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		14 - 128	12/28/17 12:57	12/30/17 15:56	1
DCB Decachlorobiphenyl	72		10 - 132	12/28/17 12:57	12/30/17 15:56	1

Lab Sample ID: LCS 240-309467/24-A

Matrix: Solid

Analysis Batch: 309653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	1000	732		ug/Kg		73	47 - 120
Aroclor-1260	1000	816		ug/Kg		82	46 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	88		14 - 128
DCB Decachlorobiphenyl	82		10 - 132

Lab Sample ID: MB 240-309549/23-A

Matrix: Solid

Analysis Batch: 309793

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 309549

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1
Aroclor-1221	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1
Aroclor-1232	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1
Aroclor-1242	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1
Aroclor-1248	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1
Aroclor-1254	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1
Aroclor-1260	50	U	50	ug/Kg		12/29/17 09:08	01/02/18 22:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		14 - 128	12/29/17 09:08	01/02/18 22:06	1
DCB Decachlorobiphenyl	104		10 - 132	12/29/17 09:08	01/02/18 22:06	1

Lab Sample ID: LCS 240-309549/24-A

Matrix: Solid

Analysis Batch: 309793

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 309549

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor-1016	1000	752		ug/Kg		75	47 - 120
Aroclor-1260	1000	816		ug/Kg		82	46 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 240-309549/24-A
Matrix: Solid
Analysis Batch: 309793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309549

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	77		14 - 128
DCB Decachlorobiphenyl	80		10 - 132

Lab Sample ID: LCSD 240-309549/25-A
Matrix: Solid
Analysis Batch: 309793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309549

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor-1016	1000	813		ug/Kg		81	47 - 120	8	30
Aroclor-1260	1000	916		ug/Kg		92	46 - 120	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	86		14 - 128
DCB Decachlorobiphenyl	94		10 - 132

Method: 8151 - Herbicides

Lab Sample ID: MB 600-228694/1-A
Matrix: Solid
Analysis Batch: 228778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 228694

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	6.7	U	6.7	ug/Kg		12/29/17 12:54	01/02/18 21:35	1
2,4,5-T	6.7	U	6.7	ug/Kg		12/29/17 12:54	01/02/18 21:35	1
Silvex (2,4,5-TP)	6.7	U	6.7	ug/Kg		12/29/17 12:54	01/02/18 21:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	106		22 - 130	12/29/17 12:54	01/02/18 21:35	1

Lab Sample ID: LCS 600-228694/2-A
Matrix: Solid
Analysis Batch: 228778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 228694

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	13.3	11.8		ug/Kg		88	33 - 159
2,4,5-T	13.3	16.1		ug/Kg		121	24 - 165
Silvex (2,4,5-TP)	13.3	12.4		ug/Kg		93	32 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	95		22 - 130

Lab Sample ID: LCSD 600-228694/3-A
Matrix: Solid
Analysis Batch: 228778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 228694

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-D	13.3	9.62		ug/Kg		72	33 - 159	20	40

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8151 - Herbicides (Continued)

Lab Sample ID: LCSD 600-228694/3-A

Matrix: Solid

Analysis Batch: 228778

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 228694

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	13.3	12.4		ug/Kg		93	24 - 165	26	40
Silvex (2,4,5-TP)	13.3	12.0		ug/Kg		90	32 - 160	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	96		22 - 130

Lab Sample ID: MB 600-228696/1-A

Matrix: Solid

Analysis Batch: 228778

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 228696

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	6.7	U	6.7	ug/Kg		12/29/17 13:02	01/02/18 11:20	1
2,4,5-T	6.7	U	6.7	ug/Kg		12/29/17 13:02	01/02/18 11:20	1
Silvex (2,4,5-TP)	6.7	U	6.7	ug/Kg		12/29/17 13:02	01/02/18 11:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	40		22 - 130	12/29/17 13:02	01/02/18 11:20	1

Lab Sample ID: LCS 600-228696/2-A

Matrix: Solid

Analysis Batch: 228778

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 228696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	13.3	5.42	J	ug/Kg		41	33 - 159
2,4,5-T	13.3	4.21	J	ug/Kg		32	24 - 165
Silvex (2,4,5-TP)	13.3	6.98		ug/Kg		52	32 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	24		22 - 130

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-308519/1-A

Matrix: Solid

Analysis Batch: 308705

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308519

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.80	U	0.80	mg/Kg		12/20/17 14:00	12/21/17 17:47	1
Cadmium	0.080	U	0.080	mg/Kg		12/20/17 14:00	12/21/17 17:47	1
Chromium	0.80	U	0.80	mg/Kg		12/20/17 14:00	12/21/17 17:47	1
Copper	0.80	U	0.80	mg/Kg		12/20/17 14:00	12/21/17 17:47	1
Zinc	2.0	U	2.0	mg/Kg		12/20/17 14:00	12/21/17 17:47	1
Lead	0.24	U	0.24	mg/Kg		12/20/17 14:00	12/21/17 17:47	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-308519/2-A

Matrix: Solid

Analysis Batch: 308705

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	184		mg/Kg		92	80 - 120
Cadmium	5.00	4.64		mg/Kg		93	80 - 120
Chromium	20.0	18.3		mg/Kg		92	80 - 120
Copper	25.0	22.4		mg/Kg		90	80 - 120
Zinc	50.0	46.8		mg/Kg		94	80 - 120
Lead	50.0	46.1		mg/Kg		92	80 - 120

Lab Sample ID: 240-89576-11 MS

Matrix: Solid

Analysis Batch: 308705

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 308519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	29		208	213		mg/Kg	☼	89	75 - 125
Cadmium	0.12		5.20	4.65		mg/Kg	☼	87	75 - 125
Chromium	8.5		20.8	28.5		mg/Kg	☼	96	75 - 125
Copper	6.8		26.0	29.8		mg/Kg	☼	88	75 - 125
Zinc	24		52.0	72.0		mg/Kg	☼	91	75 - 125
Lead	8.4		52.0	48.9		mg/Kg	☼	78	75 - 125

Lab Sample ID: 240-89576-11 MSD

Matrix: Solid

Analysis Batch: 308705

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 308519

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	29		208	217		mg/Kg	☼	91	75 - 125	2	20
Cadmium	0.12		5.20	4.74		mg/Kg	☼	89	75 - 125	2	20
Chromium	8.5		20.8	28.3		mg/Kg	☼	95	75 - 125	1	20
Copper	6.8		26.0	29.8		mg/Kg	☼	88	75 - 125	0	20
Zinc	24		52.0	72.9		mg/Kg	☼	93	75 - 125	1	20
Lead	8.4		52.0	49.6		mg/Kg	☼	79	75 - 125	1	20

Lab Sample ID: MB 240-308692/1-A

Matrix: Solid

Analysis Batch: 308900

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308692

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.80	U	0.80	mg/Kg		12/21/17 14:00	12/22/17 13:38	1
Cadmium	0.080	U	0.080	mg/Kg		12/21/17 14:00	12/22/17 13:38	1
Chromium	0.80	U	0.80	mg/Kg		12/21/17 14:00	12/22/17 13:38	1
Copper	0.80	U	0.80	mg/Kg		12/21/17 14:00	12/22/17 13:38	1
Zinc	2.0	U	2.0	mg/Kg		12/21/17 14:00	12/22/17 13:38	1
Lead	0.24	U	0.24	mg/Kg		12/21/17 14:00	12/22/17 13:38	1

Lab Sample ID: LCS 240-308692/2-A

Matrix: Solid

Analysis Batch: 308900

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	200	194		mg/Kg		97	80 - 120

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 240-308692/2-A
Matrix: Solid
Analysis Batch: 308900

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	5.00	4.83		mg/Kg		97	80 - 120
Chromium	20.0	19.0		mg/Kg		95	80 - 120
Copper	25.0	23.9		mg/Kg		95	80 - 120
Zinc	50.0	47.0		mg/Kg		94	80 - 120
Lead	50.0	45.6		mg/Kg		91	80 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-308519/1-A ^2
Matrix: Solid
Analysis Batch: 308823

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 308519

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.080	U	0.080	mg/Kg		12/20/17 14:00	12/21/17 12:43	2
Selenium	0.16	U	0.16	mg/Kg		12/20/17 14:00	12/21/17 12:43	2
Silver	0.080	U	0.080	mg/Kg		12/20/17 14:00	12/21/17 12:43	2

Lab Sample ID: LCS 240-308519/3-A ^2
Matrix: Solid
Analysis Batch: 308823

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	95.3		mg/Kg		95	80 - 120
Selenium	100	88.5		mg/Kg		88	80 - 120
Silver	10.0	9.90		mg/Kg		99	80 - 120

Lab Sample ID: 240-89576-11 MS
Matrix: Solid
Analysis Batch: 308823

Client Sample ID: S-58502-121817-SSH-1011
Prep Type: Total/NA
Prep Batch: 308519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.3		108	103		mg/Kg	☼	94	75 - 125
Selenium	0.38		108	92.7		mg/Kg	☼	86	75 - 125
Silver	0.082	U	10.8	10.2		mg/Kg	☼	95	75 - 125

Lab Sample ID: 240-89576-11 MSD
Matrix: Solid
Analysis Batch: 308823

Client Sample ID: S-58502-121817-SSH-1011
Prep Type: Total/NA
Prep Batch: 308519

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	2.3		108	105		mg/Kg	☼	95	75 - 125	1	20
Selenium	0.38		108	92.2		mg/Kg	☼	85	75 - 125	1	20
Silver	0.082	U	10.8	10.3		mg/Kg	☼	95	75 - 125	0	20

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 240-308692/1-A ^2

Matrix: Solid

Analysis Batch: 309038

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308692

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.080	U	0.080	mg/Kg		12/21/17 14:00	12/22/17 18:03	2
Selenium	0.16	U	0.16	mg/Kg		12/21/17 14:00	12/22/17 18:03	2
Silver	0.080	U	0.080	mg/Kg		12/21/17 14:00	12/22/17 18:03	2

Lab Sample ID: LCS 240-308692/3-A ^2

Matrix: Solid

Analysis Batch: 309038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	100	101		mg/Kg		101	80 - 120
Selenium	100	83.6		mg/Kg		84	80 - 120
Silver	10.0	10.0		mg/Kg		100	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 240-308537/1-A

Matrix: Solid

Analysis Batch: 308742

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308537

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040	U	0.040	mg/Kg		12/20/17 16:00	12/21/17 10:15	1

Lab Sample ID: LCS 240-308537/2-A

Matrix: Solid

Analysis Batch: 308742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 308537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.833	0.812		mg/Kg		97	80 - 120

Lab Sample ID: 240-89576-11 MS

Matrix: Solid

Analysis Batch: 308742

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 308537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.045	U	0.218	0.219		mg/Kg	☼	101	80 - 120

Lab Sample ID: 240-89576-11 MSD

Matrix: Solid

Analysis Batch: 308742

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Prep Batch: 308537

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.045	U	0.218	0.216		mg/Kg	☼	99	80 - 120	1	20

Lab Sample ID: MB 240-308713/1-A

Matrix: Solid

Analysis Batch: 308949

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 308713

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.040	U	0.040	mg/Kg		12/21/17 16:00	12/22/17 13:17	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-308713/2-A
Matrix: Solid
Analysis Batch: 308949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	1.08	*	mg/Kg		130	80 - 120

Method: Moisture - Percent Moisture

Lab Sample ID: 240-89576-1 DU
Matrix: Solid
Analysis Batch: 308463

Client Sample ID: S-58502-121817-SSH-1001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	86.8		87.1		%		0.4	20
Percent Moisture	13.2		12.9		%		2	20

Lab Sample ID: 240-89576-11 DU
Matrix: Solid
Analysis Batch: 308463

Client Sample ID: S-58502-121817-SSH-1011
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	85.1		90.2		%		6	20
Percent Moisture	14.9		9.8	F3	%		42	20

Lab Sample ID: 240-89576-20 DU
Matrix: Solid
Analysis Batch: 308463

Client Sample ID: S-58502-121817-SSH-1020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	85.1		86.1		%		1	20
Percent Moisture	14.9		13.9		%		7	20

Method: Walkley Black - Organic Carbon, Total (TOC)

Lab Sample ID: MB 240-308469/28
Matrix: Solid
Analysis Batch: 308469

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1000	U	1000	mg/Kg			12/20/17 10:17	1

Lab Sample ID: MB 240-308469/4
Matrix: Solid
Analysis Batch: 308469

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	990	U	990	mg/Kg			12/20/17 09:07	1

TestAmerica Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: Walkley Black - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 240-308469/29

Matrix: Solid

Analysis Batch: 308469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1920	1890		mg/Kg		99	51 - 126

Lab Sample ID: LCS 240-308469/5

Matrix: Solid

Analysis Batch: 308469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	1920	1690		mg/Kg		88	51 - 126

Lab Sample ID: 240-89576-11 DU

Matrix: Solid

Analysis Batch: 308469

Client Sample ID: S-58502-121817-SSH-1011

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	3600		3490		mg/Kg	✱	2	20

Lab Sample ID: 240-89576-12 DU

Matrix: Solid

Analysis Batch: 308469

Client Sample ID: S-58502-121817-SSH-1012

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	4500		4510		mg/Kg	✱	1	20

Lab Sample ID: 240-89576-21 DU

Matrix: Solid

Analysis Batch: 308469

Client Sample ID: S-58502-121817-SSH-1021

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	8200		8400		mg/Kg	✱	3	20

TestAmerica Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (64-144)	BFB (58-142)	TOL (61-137)	DBFM (31-155)
240-89576-1	S-58502-121817-SSH-1001	99	93	96	105
240-89576-2	S-58502-121817-SSH-1002	109	104	109	115
240-89576-3	S-58502-121817-SSH-1003	101	97	103	107
240-89576-4	S-58502-121817-SSH-1004	101	101	106	107
240-89576-5	S-58502-121817-SSH-1005	97	95	101	104
240-89576-6	S-58502-121817-SSH-1006	105	101	108	109
240-89576-7	S-58502-121817-SSH-1007	108	98	103	106
240-89576-8	S-58502-121817-SSH-1008	99	97	100	99
240-89576-9	S-58502-121817-SSH-1009	105	95	102	104
240-89576-10	S-58502-121817-SSH-1010	96	94	97	96
240-89576-11	S-58502-121817-SSH-1011	105	105	109	106
240-89576-12	S-58502-121817-SSH-1012	95	92	99	100
240-89576-13	S-58502-121817-SSH-1013	106	100	107	89
240-89576-14	S-58502-121817-SSH-1014	97	94	99	89
240-89576-15	S-58502-121817-SSH-1015	100	95	102	98
240-89576-16	S-58502-121817-SSH-1016	95	91	96	94
240-89576-17	S-58502-121817-SSH-1017	102	97	102	100
240-89576-18	S-58502-121817-SSH-1018	96	94	98	92
240-89576-19	S-58502-121817-SSH-1019	99	97	102	75
240-89576-20	S-58502-121817-SSH-1020	92	92	97	99
240-89576-21	S-58502-121817-SSH-1021	105	99	103	107
LCS 240-308903/2-A	Lab Control Sample	93	89	90	98
LCS 240-308992/2-A	Lab Control Sample	94	86	89	93
MB 240-308903/1-A	Method Blank	92	87	93	99
MB 240-308992/1-A	Method Blank	90	87	91	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (32-120)	2FP (29-120)	TBP (10-120)	NBZ (30-120)	PHL (29-120)	TPHL (41-120)
240-89576-1	S-58502-121817-SSH-1001	91	78	60	72	86	105
240-89576-2	S-58502-121817-SSH-1002	95	76	74	72	85	111
240-89576-3	S-58502-121817-SSH-1003	87	75	51	70	79	99
240-89576-4	S-58502-121817-SSH-1004	84	71	52	67	80	98
240-89576-4 MS	S-58502-121817-SSH-1004	92	73	75	68	80	108
240-89576-4 MSD	S-58502-121817-SSH-1004	100	82	77	79	88	115
240-89576-5	S-58502-121817-SSH-1005	82	72	75	66	73	98
240-89576-6	S-58502-121817-SSH-1006	82	64	80	58	70	101
240-89576-7	S-58502-121817-SSH-1007	80	68	58	60	69	101
240-89576-8	S-58502-121817-SSH-1008	78	67	56	59	69	94
240-89576-9	S-58502-121817-SSH-1009	79	64	54	58	67	99

TestAmerica Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (32-120)	2FP (29-120)	TBP (10-120)	NBZ (30-120)	PHL (29-120)	TPHL (41-120)
240-89576-10	S-58502-121817-SSH-1010	78	67	51	62	69	91
240-89576-11	S-58502-121817-SSH-1011	71	59	63	55	61	86
240-89576-11 MS	S-58502-121817-SSH-1011	77	61	67	62	64	91
240-89576-11 MSD	S-58502-121817-SSH-1011	80	70	70	69	72	89
240-89576-12	S-58502-121817-SSH-1012	85	75	66	71	76	104
240-89576-13	S-58502-121817-SSH-1013	84	69	56	61	72	96
240-89576-14	S-58502-121817-SSH-1014	89	80	56	72	82	110
240-89576-15	S-58502-121817-SSH-1015	68	55	56	48	59	82
240-89576-16	S-58502-121817-SSH-1016	91	78	60	73	81	107
240-89576-17	S-58502-121817-SSH-1017	86	77	63	72	78	109
240-89576-18	S-58502-121817-SSH-1018	69	57	41	52	59	87
240-89576-19	S-58502-121817-SSH-1019	91	79	54	71	81	108
240-89576-20	S-58502-121817-SSH-1020	95	82	82	74	86	111
240-89576-21	S-58502-121817-SSH-1021	98	84	96	79	88	119
LCS 240-309410/23-A	Lab Control Sample	94	82	60	79	87	105
LCS 240-309572/23-A	Lab Control Sample	95	84	62	84	84	112
MB 240-309410/22-A	Method Blank	97	76	55	79	86	109
MB 240-309572/22-A	Method Blank	83	58	33	67	66	100

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (13-135)	DCBP2 (13-135)	TCX1 (30-120)	TCX2 (30-120)
240-89576-1	S-58502-121817-SSH-1001	72	82	74	72
240-89576-2	S-58502-121817-SSH-1002	69	81	74	69
240-89576-3	S-58502-121817-SSH-1003	73	81	75	71
240-89576-4	S-58502-121817-SSH-1004	78	85	83	74
240-89576-5	S-58502-121817-SSH-1005	116	139 X	126 X	120
240-89576-6	S-58502-121817-SSH-1006	73	85	73	69
240-89576-7	S-58502-121817-SSH-1007	75	85	74	72
240-89576-8	S-58502-121817-SSH-1008	71	79	70	69
240-89576-9	S-58502-121817-SSH-1009	71	80	80	72
240-89576-10	S-58502-121817-SSH-1010	76	81	73	70
240-89576-11	S-58502-121817-SSH-1011	76	95	79	79
240-89576-11 MS	S-58502-121817-SSH-1011	83	97	110	86
240-89576-11 MSD	S-58502-121817-SSH-1011	113	125	116	115
240-89576-12	S-58502-121817-SSH-1012	69	79	82	70
240-89576-13	S-58502-121817-SSH-1013	58	78	58	59
240-89576-14	S-58502-121817-SSH-1014	67	73	76	70

TestAmerica Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1 (13-135)	DCBP2 (13-135)	TCX1 (30-120)	TCX2 (30-120)
240-89576-15	S-58502-121817-SSH-1015	66	70	69	66
240-89576-16	S-58502-121817-SSH-1016	75	76	79	70
240-89576-17	S-58502-121817-SSH-1017	70	78	76	69
240-89576-18	S-58502-121817-SSH-1018	66	75	63	67
240-89576-19	S-58502-121817-SSH-1019	106	81	90	67
240-89576-20	S-58502-121817-SSH-1020	126	136 X	122 X	112
240-89576-21	S-58502-121817-SSH-1021	130	99	88	84
LCS 240-309456/24-A	Lab Control Sample	114	100	100	81
LCS 240-309571/7-A	Lab Control Sample	96	91	90	71
MB 240-309456/23-A	Method Blank	97	96	90	77
MB 240-309571/6-A	Method Blank	85	84	81	70

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (14-128)	DCBP1 (10-132)
240-89576-1	S-58502-121817-SSH-1001	124	143 X
240-89576-2	S-58502-121817-SSH-1002	97	112
240-89576-3	S-58502-121817-SSH-1003	93	113
240-89576-4	S-58502-121817-SSH-1004	83	108
240-89576-5	S-58502-121817-SSH-1005	90	95
240-89576-6	S-58502-121817-SSH-1006	80	96
240-89576-7	S-58502-121817-SSH-1007	91	93
240-89576-8	S-58502-121817-SSH-1008	106	102
240-89576-9	S-58502-121817-SSH-1009	94	97
240-89576-10	S-58502-121817-SSH-1010	109	115
240-89576-11	S-58502-121817-SSH-1011	96	104
240-89576-11 MS	S-58502-121817-SSH-1011	92	106
240-89576-11 MSD	S-58502-121817-SSH-1011	100	92
240-89576-12	S-58502-121817-SSH-1012	77	87
240-89576-13	S-58502-121817-SSH-1013	92	100
240-89576-14	S-58502-121817-SSH-1014	90	88
240-89576-15	S-58502-121817-SSH-1015	93	96
240-89576-16	S-58502-121817-SSH-1016	83	75
240-89576-17	S-58502-121817-SSH-1017	84	82
240-89576-18	S-58502-121817-SSH-1018	88	71
LCS 240-308659/23-A	Lab Control Sample	80	97
LCS 240-309467/24-A	Lab Control Sample	88	82
MB 240-308659/22-A	Method Blank	66	93
MB 240-309467/23-A	Method Blank	81	72

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

TestAmerica Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (14-128)	DCBP2 (10-132)
240-89576-19	S-58502-121817-SSH-1019	85	91
240-89576-20	S-58502-121817-SSH-1020	85	87
240-89576-21	S-58502-121817-SSH-1021	95	113
LCS 240-309549/24-A	Lab Control Sample	77	80
LCSD 240-309549/25-A	Lab Control Sample Dup	86	94
MB 240-309549/23-A	Method Blank	89	104

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8151 - Herbicides

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (22-130)
240-89576-1	S-58502-121817-SSH-1001	36
240-89576-2	S-58502-121817-SSH-1002	32
240-89576-3	S-58502-121817-SSH-1003	92
240-89576-4	S-58502-121817-SSH-1004	93
240-89576-5	S-58502-121817-SSH-1005	91
240-89576-6	S-58502-121817-SSH-1006	37
240-89576-7	S-58502-121817-SSH-1007	63
240-89576-8	S-58502-121817-SSH-1008	86
240-89576-9	S-58502-121817-SSH-1009	289 X
240-89576-10	S-58502-121817-SSH-1010	112
240-89576-11	S-58502-121817-SSH-1011	137 X
240-89576-12	S-58502-121817-SSH-1012	305 X
240-89576-13	S-58502-121817-SSH-1013	85
240-89576-14	S-58502-121817-SSH-1014	92
240-89576-15	S-58502-121817-SSH-1015	81
240-89576-16	S-58502-121817-SSH-1016	109
240-89576-17	S-58502-121817-SSH-1017	59
240-89576-18	S-58502-121817-SSH-1018	86
240-89576-19	S-58502-121817-SSH-1019	138 X
240-89576-20	S-58502-121817-SSH-1020	147 X
240-89576-21	S-58502-121817-SSH-1021	105
LCS 600-228694/2-A	Lab Control Sample	95
LCS 600-228696/2-A	Lab Control Sample	24
LCSD 600-228694/3-A	Lab Control Sample Dup	96
MB 600-228694/1-A	Method Blank	106
MB 600-228696/1-A	Method Blank	40

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1001

Date Collected: 12/18/17 09:30

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-1

Matrix: Solid

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 15:33	HMB	TAL CAN
Total/NA	Prep	3540C			309410	12/28/17 09:41	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309741	01/02/18 18:58	JMG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 11:31	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 12:04	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/02/18 23:13	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:23	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:23	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:29	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:25	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1002

Date Collected: 12/18/17 09:40

Date Received: 12/19/17 10:30

Lab Sample ID: 240-89576-2

Matrix: Solid

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 15:56	HMB	TAL CAN
Total/NA	Prep	3540C			309410	12/28/17 09:41	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309741	01/02/18 18:34	JMG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 11:43	OCR	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 12:24	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/02/18 23:37	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:28	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:28	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:31	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:28	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1003

Lab Sample ID: 240-89576-3

Date Collected: 12/18/17 09:55

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1003

Lab Sample ID: 240-89576-3

Date Collected: 12/18/17 09:55

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 16:19	HMB	TAL CAN
Total/NA	Prep	3540C			309410	12/28/17 09:41	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309741	01/02/18 18:10	JMG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 11:56	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 12:44	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 00:01	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:33	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:32	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:33	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:30	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1004

Lab Sample ID: 240-89576-4

Date Collected: 12/18/17 10:05

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1004

Lab Sample ID: 240-89576-4

Date Collected: 12/18/17 10:05

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 16:41	HMB	TAL CAN
Total/NA	Prep	3540C			309410	12/28/17 09:41	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309741	01/02/18 16:59	JMG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 12:08	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 13:04	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 00:26	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:37	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:37	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:35	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:33	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1005

Lab Sample ID: 240-89576-5

Date Collected: 12/18/17 10:15

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1005

Lab Sample ID: 240-89576-5

Date Collected: 12/18/17 10:15

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 17:03	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 14:51	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		5	309735	01/02/18 12:21	OCR	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1005

Lab Sample ID: 240-89576-5

Date Collected: 12/18/17 10:15

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 13:24	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 00:50	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:42	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:41	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:37	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:36	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1006

Lab Sample ID: 240-89576-6

Date Collected: 12/18/17 10:30

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1006

Lab Sample ID: 240-89576-6

Date Collected: 12/18/17 10:30

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 17:26	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 15:38	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 12:33	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 13:43	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 01:14	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:47	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:46	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:39	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:39	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1007

Lab Sample ID: 240-89576-7

Date Collected: 12/18/17 10:40

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1007

Lab Sample ID: 240-89576-7

Date Collected: 12/18/17 10:40

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 17:49	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 15:15	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 12:46	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 14:03	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 01:39	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:00	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 13:59	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:45	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:42	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1008

Lab Sample ID: 240-89576-8

Date Collected: 12/18/17 10:50

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1008

Lab Sample ID: 240-89576-8

Date Collected: 12/18/17 10:50

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 18:11	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 18:48	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 12:58	OCR	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1008

Lab Sample ID: 240-89576-8

Date Collected: 12/18/17 10:50

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 14:23	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		5	228778	01/03/18 02:03	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:05	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:04	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:47	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:51	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1009

Lab Sample ID: 240-89576-9

Date Collected: 12/18/17 11:05

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1009

Lab Sample ID: 240-89576-9

Date Collected: 12/18/17 11:05

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 18:33	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 16:02	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 13:11	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 14:42	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 02:27	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:10	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:08	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:49	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:54	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1010

Lab Sample ID: 240-89576-10

Date Collected: 12/18/17 11:20

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1010

Lab Sample ID: 240-89576-10

Date Collected: 12/18/17 11:20

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 18:56	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 16:26	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 13:23	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 15:02	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 02:52	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:14	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:13	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:51	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:57	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1011

Lab Sample ID: 240-89576-11

Date Collected: 12/18/17 11:30

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1011

Lab Sample ID: 240-89576-11

Date Collected: 12/18/17 11:30

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 19:19	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 16:49	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		5	309735	01/02/18 13:36	OCR	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1011

Lab Sample ID: 240-89576-11

Date Collected: 12/18/17 11:30

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 15:21	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 03:40	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 18:05	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 12:52	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:23	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:16	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1012

Lab Sample ID: 240-89576-12

Date Collected: 12/18/17 11:45

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1012

Lab Sample ID: 240-89576-12

Date Collected: 12/18/17 11:45

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 19:42	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309732	01/02/18 14:55	TMH	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 13:48	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 16:20	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 04:05	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:19	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:17	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:53	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 09:48	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1013

Lab Sample ID: 240-89576-13

Date Collected: 12/18/17 12:15

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1013

Lab Sample ID: 240-89576-13

Date Collected: 12/18/17 12:15

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 20:04	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 18:24	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 14:01	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 16:40	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		5	228778	01/03/18 04:29	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:23	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		2	308900	12/22/17 18:59	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:21	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:55	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:00	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1014

Lab Sample ID: 240-89576-14

Date Collected: 12/18/17 12:25

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1014

Lab Sample ID: 240-89576-14

Date Collected: 12/18/17 12:25

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 20:25	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309871	01/03/18 12:17	TMH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1014

Lab Sample ID: 240-89576-14

Date Collected: 12/18/17 12:25

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 14:13	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 17:00	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 04:54	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:28	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:26	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:57	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:02	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1015

Lab Sample ID: 240-89576-15

Date Collected: 12/18/17 12:40

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1015

Lab Sample ID: 240-89576-15

Date Collected: 12/18/17 12:40

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 20:48	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 18:00	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 14:26	OCR	TAL CAN
Total/NA	Prep	3540C			308659	12/21/17 09:03	JMT	TAL CAN
Total/NA	Analysis	8082A		1	308794	12/22/17 17:19	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		5	228778	01/03/18 05:18	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:33	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:30	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 10:59	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:05	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1016

Lab Sample ID: 240-89576-16

Date Collected: 12/18/17 12:50

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1016

Lab Sample ID: 240-89576-16

Date Collected: 12/18/17 12:50

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 21:18	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309732	01/02/18 15:43	TMH	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 14:38	OCR	TAL CAN
Total/NA	Prep	3540C			309467	12/28/17 12:57	DVT	TAL CAN
Total/NA	Analysis	8082A		1	309653	12/30/17 17:13	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 05:42	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:37	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:35	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 11:01	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:08	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1017

Lab Sample ID: 240-89576-17

Date Collected: 12/18/17 13:00

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1017

Lab Sample ID: 240-89576-17

Date Collected: 12/18/17 13:00

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 21:41	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309732	01/02/18 15:19	TMH	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 14:51	OCR	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1017

Lab Sample ID: 240-89576-17

Date Collected: 12/18/17 13:00

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			309467	12/28/17 12:57	DVT	TAL CAN
Total/NA	Analysis	8082A		1	309653	12/30/17 17:32	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 06:07	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:42	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:39	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 11:03	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:11	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1018

Lab Sample ID: 240-89576-18

Date Collected: 12/18/17 13:15

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1018

Lab Sample ID: 240-89576-18

Date Collected: 12/18/17 13:15

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309086	12/26/17 22:03	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	310043	01/04/18 19:11	KHG	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309735	01/02/18 15:03	OCR	TAL CAN
Total/NA	Prep	3540C			309467	12/28/17 12:57	DVT	TAL CAN
Total/NA	Analysis	8082A		1	309653	12/30/17 17:51	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		5	228778	01/03/18 06:31	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 19:56	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:53	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 11:09	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:14	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1019

Lab Sample ID: 240-89576-19

Date Collected: 12/18/17 13:25

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1019

Lab Sample ID: 240-89576-19

Date Collected: 12/18/17 13:25

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 11:39	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309377	12/28/17 11:22	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309871	01/03/18 11:06	TMH	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		1	309842	01/02/18 18:02	OCR	TAL CAN
Total/NA	Prep	3540C			309549	12/29/17 09:08	JMT	TAL CAN
Total/NA	Analysis	8082A		1	309793	01/02/18 23:54	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		1	228778	01/03/18 06:55	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 20:01	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 14:57	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 11:11	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:29	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1020

Lab Sample ID: 240-89576-20

Date Collected: 12/18/17 13:40

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1020

Lab Sample ID: 240-89576-20

Date Collected: 12/18/17 13:40

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308903	12/22/17 12:01	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309377	12/28/17 11:45	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309871	01/03/18 10:43	TMH	TAL CAN
Total/NA	Prep	3540C			309456	12/28/17 12:15	DVT	TAL CAN
Total/NA	Analysis	8081A		5	309842	01/02/18 18:15	OCR	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Client Sample ID: S-58502-121817-SSH-1020

Lab Sample ID: 240-89576-20

Date Collected: 12/18/17 13:40

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			309549	12/29/17 09:08	JMT	TAL CAN
Total/NA	Analysis	8082A		1	309793	01/03/18 00:16	LSH	TAL CAN
Total/NA	Prep	8151A			228694	12/29/17 12:54	RLK	TAL HOU
Total/NA	Analysis	8151		5	228778	01/03/18 07:20	JAL	TAL HOU
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	308705	12/21/17 20:05	KLC	TAL CAN
Total/NA	Prep	3050B			308519	12/20/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		2	308823	12/21/17 15:02	AS1	TAL CAN
Total/NA	Prep	7471A			308537	12/20/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308742	12/21/17 11:13	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:32	TPH	TAL CAN

Client Sample ID: S-58502-121817-SSH-1021

Lab Sample ID: 240-89576-21

Date Collected: 12/18/17 13:41

Matrix: Solid

Date Received: 12/19/17 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	308463	12/20/17 08:23	MBR	TAL CAN

Client Sample ID: S-58502-121817-SSH-1021

Lab Sample ID: 240-89576-21

Date Collected: 12/18/17 13:41

Matrix: Solid

Date Received: 12/19/17 10:30

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			308992	12/23/17 09:35	LAM	TAL CAN
Total/NA	Analysis	8260B		1	309377	12/28/17 12:55	HMB	TAL CAN
Total/NA	Prep	3540C			309572	12/29/17 10:29	JMT	TAL CAN
Total/NA	Analysis	8270C		1	309871	01/03/18 10:19	TMH	TAL CAN
Total/NA	Prep	3540C			309571	12/29/17 10:04	DVT	TAL CAN
Total/NA	Analysis	8081A		5	309842	01/02/18 19:18	OCR	TAL CAN
Total/NA	Prep	3540C			309549	12/29/17 09:08	JMT	TAL CAN
Total/NA	Analysis	8082A		1	309863	01/03/18 09:59	LSH	TAL CAN
Total/NA	Prep	8151A			228696	12/29/17 14:30	SMB	TAL HOU
Total/NA	Analysis	8151		1	228778	01/02/18 21:11	JAL	TAL HOU
Total/NA	Prep	3050B			308692	12/21/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6010B		1	309208	12/27/17 00:26	KLC	TAL CAN
Total/NA	Prep	3050B			308692	12/21/17 14:00	DEE	TAL CAN
Total/NA	Analysis	6020		1	309207	12/26/17 21:06	AS1	TAL CAN
Total/NA	Prep	7471A			308713	12/21/17 16:00	DEE	TAL CAN
Total/NA	Analysis	7471A		1	308949	12/22/17 13:42	DSH	TAL CAN
Total/NA	Analysis	Walkley Black		1	308469	12/20/17 10:26	TPH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396
TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 58502-019, RACER Nodular Iron

TestAmerica Job ID: 240-89576-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17 *
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (VW)	State Program	4	98016	12-31-17 *
Minnesota	NELAP	5	039-999-348	12-31-17 *
Minnesota (Petrofund)	State Program	1	3506	07-31-18
Nevada	State Program	9	OH-000482008A	07-31-18
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-18
Texas	NELAP	6	T104704517-17-9	08-31-18
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-18
Washington	State Program	10	C971	01-12-18 *
West Virginia DEP	State Program	3	210	12-31-17 *

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-22	10-31-18
USDA	Federal		P330-17-00132	04-20-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Canton

TestAmerica Michigan
10448 Citation Drive
Suite 200
Brighton, MI 48116
Phone: 810.229.2763 Fax:

MICHIGAN
190

Chain of Custody Record
3.813.5
238754
58/5.5

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (07/13)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <u>Client Contact</u>		Project Manager: <u>M. Tomlin</u>		Site Contact: <u>IF</u>		Date: <u>12/18/17</u>		COC No: <u>2387543238754</u>	
Address: <u>6410</u>		Tel/Fax: <u>519 887 0510</u>		Lab Contact: <u>IF</u>		Carrier: <u>Felix</u>		2 of 2 COCs	
City/State/Zip: <u>2406032</u>		☐ CALENDAR DAYS ☒ WORKING DAYS		Analysis Turnaround Time		Sampler: <u>5</u>		For Lab Use Only:	
Phone: <u>2406032</u>		TAT if different from Below				Walk-In Client:		Lab Sampling:	
Fax: <u>2406032</u>		☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day				Job / SDG No.:			
Project Name: <u>Raw Water Analysis</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site: <u>5502-5502-5502-002</u>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
PO# <u>Lab# 2406032</u>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
S-5502-121817-SSA-1013		-1014		12/18/17		12:15		G	
-1015		-1016		12/18/17		12:40		G	
-1017		-1018		12/18/17		12:50		G	
-1019		-1020		12/18/17		13:00		G	
S-5502-121817-SSA-1021		-1021		12/18/17		13:15		G	
-1022		-1023		12/18/17		13:25		G	
-1024		-1025		12/18/17		13:40		G	
-1026		-1027		12/18/17		13:41		G	
-1028		-1029		12/18/17		13:41		G	
-1030		-1031		12/18/17		13:41		G	
-1032		-1033		12/18/17		13:41		G	
-1034		-1035		12/18/17		13:41		G	
-1036		-1037		12/18/17		13:41		G	
-1038		-1039		12/18/17		13:41		G	
-1040		-1041		12/18/17		13:41		G	
-1042		-1043		12/18/17		13:41		G	
-1044		-1045		12/18/17		13:41		G	
-1046		-1047		12/18/17		13:41		G	
-1048		-1049		12/18/17		13:41		G	
-1050		-1051		12/18/17		13:41		G	
-1052		-1053		12/18/17		13:41		G	
-1054		-1055		12/18/17		13:41		G	
-1056		-1057		12/18/17		13:41		G	
-1058		-1059		12/18/17		13:41		G	
-1060		-1061		12/18/17		13:41		G	
-1062		-1063		12/18/17		13:41		G	
-1064		-1065		12/18/17		13:41		G	
-1066		-1067		12/18/17		13:41		G	
-1068		-1069		12/18/17		13:41		G	
-1070		-1071		12/18/17		13:41		G	
-1072		-1073		12/18/17		13:41		G	
-1074		-1075		12/18/17		13:41		G	
-1076		-1077		12/18/17		13:41		G	
-1078		-1079		12/18/17		13:41		G	
-1080		-1081		12/18/17		13:41		G	
-1082		-1083		12/18/17		13:41		G	
-1084		-1085		12/18/17		13:41		G	
-1086		-1087		12/18/17		13:41		G	
-1088		-1089		12/18/17		13:41		G	
-1090		-1091		12/18/17		13:41		G	
-1092		-1093		12/18/17		13:41		G	
-1094		-1095		12/18/17		13:41		G	
-1096		-1097		12/18/17		13:41		G	
-1098		-1099		12/18/17		13:41		G	
-1100		-1101		12/18/17		13:41		G	
-1102		-1103		12/18/17		13:41		G	
-1104		-1105		12/18/17		13:41		G	
-1106		-1107		12/18/17		13:41		G	
-1108		-1109		12/18/17		13:41		G	
-1110		-1111		12/18/17		13:41		G	
-1112		-1113		12/18/17		13:41		G	
-1114		-1115		12/18/17		13:41		G	
-1116		-1117		12/18/17		13:41		G	
-1118		-1119		12/18/17		13:41		G	
-1120		-1121		12/18/17		13:41		G	
-1122		-1123		12/18/17		13:41		G	
-1124		-1125		12/18/17		13:41		G	
-1126		-1127		12/18/17		13:41		G	
-1128		-1129		12/18/17		13:41		G	
-1130		-1131		12/18/17		13:41		G	
-1132		-1133		12/18/17		13:41		G	
-1134		-1135		12/18/17		13:41		G	
-1136		-1137		12/18/17		13:41		G	
-1138		-1139		12/18/17		13:41		G	
-1140		-1141		12/18/17		13:41		G	
-1142		-1143		12/18/17		13:41		G	
-1144		-1145		12/18/17		13:41		G	
-1146		-1147		12/18/17		13:41		G	
-1148		-1149		12/18/17		13:41		G	
-1150		-1151		12/18/17		13:41		G	
-1152		-1153		12/18/17		13:41		G	
-1154		-1155		12/18/17		13:41		G	
-1156		-1157		12/18/17		13:41		G	
-1158		-1159		12/18/17		13:41		G	
-1160		-1161		12/18/17		13:41		G	
-1162		-1163		12/18/17		13:41		G	
-1164		-1165		12/18/17		13:41		G	
-1166		-1167		12/18/17		13:41		G	
-1168		-1169		12/18/17		13:41		G	
-1170		-1171		12/18/17		13:41		G	
-1172		-1173		12/18/17		13:41		G	
-1174		-1175		12/18/17		13:41		G	
-1176		-1177		12/18/17		13:41		G	
-1178		-1179		12/18/17		13:41		G	
-1180		-1181		12/18/17		13:41		G	
-1182		-1183		12/18/17		13:41		G	
-1184		-1185		12/18/17		13:41		G	
-1186		-1187		12/18/17		13:41		G	
-1188		-1189		12/18/17		13:41		G	
-1190		-1191		12/18/17		13:41		G	
-1192		-1193		12/18/17		13:41		G	
-1194		-1195		12/18/17		13:41		G	
-1196		-1197		12/18/17		13:41		G	
-1198		-1199		12/18/17		13:41		G	
-1200		-1201		12/18/17		13:41		G	
-1202		-1203		12/18/17		13:41		G	
-1204		-1205		12/18/17		13:41		G	
-1206		-1207		12/18/17		13:41		G	
-1208		-1209		12/18/17		13:41		G	
-1210		-1211		12/18/17		13:41		G	
-1212		-1213		12/18/17		13:41		G	
-1214		-1215		12/18/17		13:41		G	
-1216		-1217		12/18/17		13:41		G	
-1218		-1219		12/18/17		13:41		G	
-1220		-1221		12/18/17		13:41		G	
-1222		-1223		12/18/17		13:41		G	
-1224		-1225		12/18/17		13:41		G	
-1226		-1227		12/18/17		13:41		G	
-1228		-1229		12/18/17		13:41		G	
-1230		-1231		12/18/17		13:41		G	
-1232		-1233		12/18/17		13:41		G	
-1234		-1235		12/18/17		13:41		G	
-1236		-1237		12/18/17		13:41		G	
-1238		-1239		12/18/17		13:41		G	
-1240		-1241		12/18/17		13:41		G	
-1242		-1243		12/18/17		13:41		G	
-1244		-1245		12/18/17		13:41		G	
-1246		-1247		12/18/17		13:41		G	
-1248		-1249		12/18/17		13:41		G	
-1250		-1251		12/18/17		13:41		G	
-1252		-1253		12/18/17		13:41		G	
-1254		-1255		12/18/17		13:41		G	
-1256		-1257		12/18/17		13:41		G	
-1258		-1259		12/18/17		13:41		G	
-1260		-1261		12/18/17		13:41		G	
-1262		-1263		12/18/17		13:41		G	
-1264		-1265		12/18/17		13:41		G	
-1266		-1267		12/18/17		13:41		G	
-1268		-1269		12/18/17		13:41		G	
-1270		-1271		12/18/17		13:41		G	
-1272		-1273		12/18/17		13:41		G	
-1274		-1275		12/18/17		13:41		G	
-1276		-1277		12/18/17		13:41		G	
-1278		-1279		12/18/17		13:41		G	
-1280		-1281		12/18/17		13:41		G	
-1282		-1283		12/18/17		13:41		G	
-1284		-1285		12/18/17		13:41		G	
-1286		-1287		12/18/17		13:41		G	
-1288		-1289		12/18/17		13:41		G	
-1290		-1291		12/18/17		13:41		G	
-1292		-1293		12/18/17		13:41		G	
-1294		-1295		12/18/17		13:41		G	
-1296		-1297		12/18/17		13:41		G	
-1298		-1299		12/18/17		13:41		G	
-1300		-1301		12/18/17		13:41		G	
-1302		-1303		12/18/17		13:41		G	
-1304		-1305		12/18/17		13:41		G	
-1306		-1307		12/18/17		13:41		G	
-1308		-1309		12/18/17		13:41		G	
-1310		-1311		12/18/17		13:41		G	
-1312		-1313		12/18/17		13:41		G	
-1314		-1315		12/18/17		13:41		G	
-1316		-1317		12/18/17		13:41		G	
-1318		-1319		12/18/17		13:41		G	
-1320		-1321		12/18/17		13:41		G	
-1322		-1323		12/18/17		13:41		G	
-1324		-1325		12/18/17		13:41		G	
-1326		-1327		12/18/17		13:41		G	
-1328		-1329		12/18/17		13:41		G	
-1330		-1331		12/18/17		13:41		G	
-1332		-1333		12/18/17		13:41		G	
-1334		-1335		12/18/17		13:41		G	
-1336		-1337		12/18/17		13:41		G	
-1338		-1339		12/18/17		13:41		G	
-1340		-1341		12/18/17		13:41		G	
-1342		-1343		12/18/17		13:41		G	
-134									

89576
Login # :

TestAmerica Canton Sample Receipt Form/Narrative

Canton Facility

Client GHD Site Name _____ Cooler unpacked by: ROP

Cooler Received on 12-19-17 Opened on 12-19-17

FedEx: 1st Grd Exp UPS FAS Clipper 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# IR-8 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN #36 (CF +0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN # 627 (CF -1.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
-Were tamper/custody seals intact and uncompromised? Yes No NA

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 all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC730269

13. Were VOAs on the COC? Yes No NA

14. Were air bubbles >6 mm in any VOA vials? Yes Larger than this. 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 _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: _____

17. 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)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

89576

X:\X-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099H-071615 Cooler Receipt Form_page 2 - Multiple Coolers.doc xls

Chain of Custody Record

Client Information (Sub Contract Lab)				Lab PM: Heckler, Denise D		Carrier Tracking No(s): 240-81189.3	
Client Contact: Shipping/Receiving				Phone		State of Origin: Michigan	
Company: TestAmerica Laboratories, Inc.				E-Mail: denise heckler@testamericainc.com		Page 3 of 3	
Address: 63310 Rothway Street, City: Houston State, Zip: TX, 77040				Accreditations Required (See note):		Job #: 240-89576-1	
Phone: 713-690-4444(Tel) 713-690-5646(Fax)				PO #:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email: Project Name: 58502-019, RACER Nodular Iron				WO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Site: SSOWH:				Project #: 24006032		Due Date Requested: 1/2/2018	
				TAT Requested (days):		Analysis Requested	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8151A/8151A_SP (MOD) Herbicides
S-58502-121817-SSH-1017 (240-89576-17)	12/18/17	13:00 Eastern	Solid	Solid	X	X	1
S-58502-121817-SSH-1018 (240-89576-18)	12/18/17	13:15 Eastern	Solid	Solid	X	X	1
S-58502-121817-SSH-1019 (240-89576-19)	12/18/17	13:25 Eastern	Solid	Solid	X	X	1
S-58502-121817-SSH-1020 (240-89576-20)	12/18/17	13:40 Eastern	Solid	Solid	X	X	1
S-58502-121817-SSH-1021 (240-89576-21)	12/18/17	13:41 Eastern	Solid	Solid	X	X	1
Special Instructions/Note:							
Total Number of Containers							
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I							
Possible Hazard Identification							
Unconfirmed							
Deliverable Requested: I, II, III, IV, Other (specify)							
Primary Deliverable Rank: 2							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by:							
Relinquished by:							
Relinquished by:							
Relinquished by:							
Custody Seal No.:							
A Yes A No							

17DEC22 11:09

JOB NUMBER: Date/Time Received: CLIENT: TA CenterUNPACKED BY: CARRIER/DRIVER: FCSCustody Seal Present: ☐ YES ☒ NONumber of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>2</u>	Y / N	Y / N	<u>3.5</u>	<u>60</u>	<u>-3</u>	<u>3.5</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N	<u>122271</u>			
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☐ YES ☒ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are >pH 12: ☐ YES ☒ NO Acid preserved are <pH 2: ☐ YES ☒ NOpH paper Lot # VOA headspace acceptable (5-6mm): ☐ YES ☒ NO ☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

COMMENTS:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-89576-1

Login Number: 89576

List Number: 2

Creator: Crafton, Tommie S

List Source: TestAmerica Houston

List Creation: 12/22/17 01:21 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
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	3.5°C
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?	False	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.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-89576-1

Login Number: 89576

List Number: 3

Creator: Crafton, Tommie S

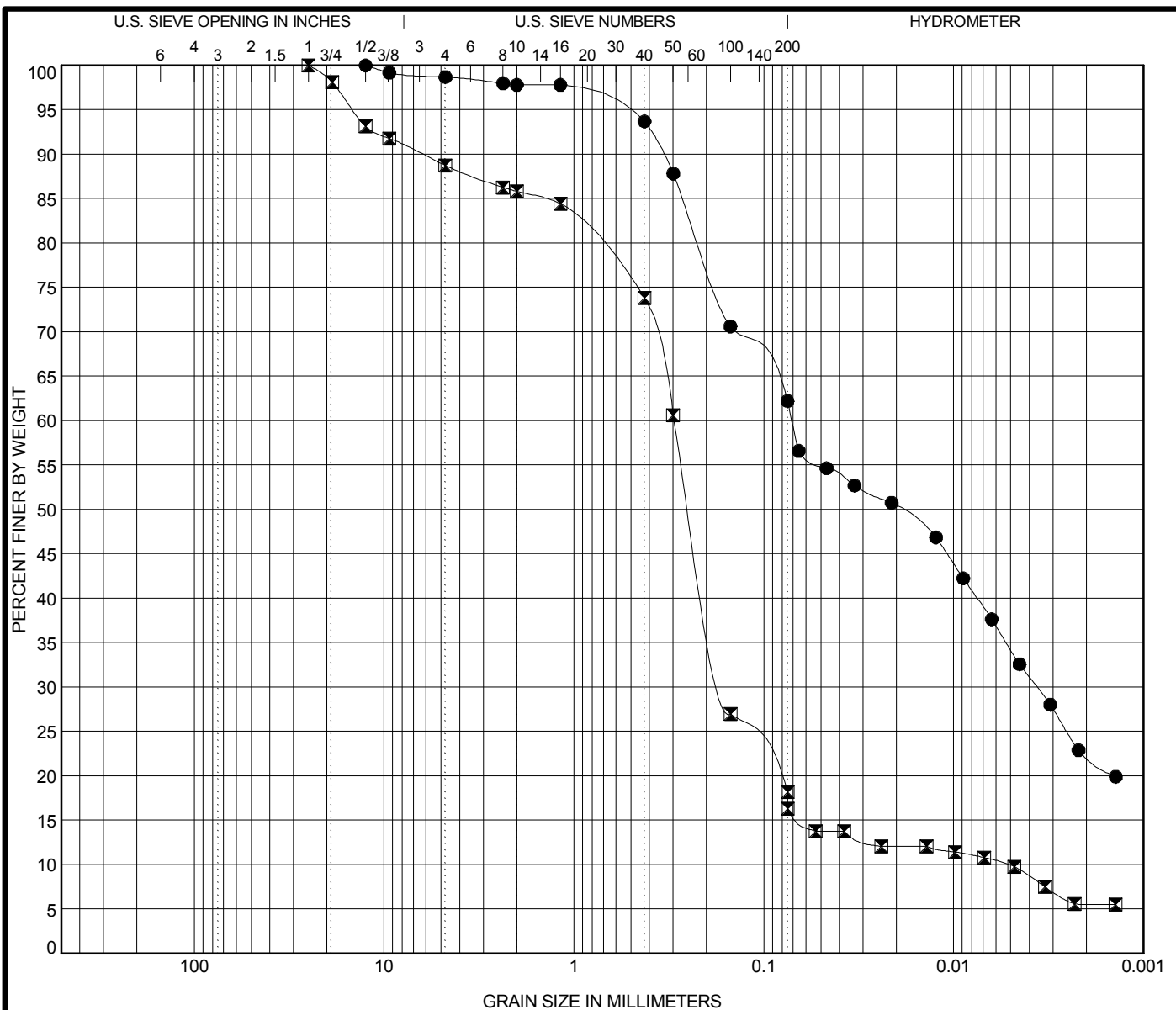
List Source: TestAmerica Houston

List Creation: 12/22/17 01:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
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	3.5°C
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?	False	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.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Attachment B

Geotechnical Analysis Results



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification			Classification			LL	PL	PI	Cc	Cu
●	1	0	(ML) Clayey SILT and SAND, trace gravel			32	19	13		
☒	2	0	(SM) SAND with silt and gravel, trace clay						16.52	56.89

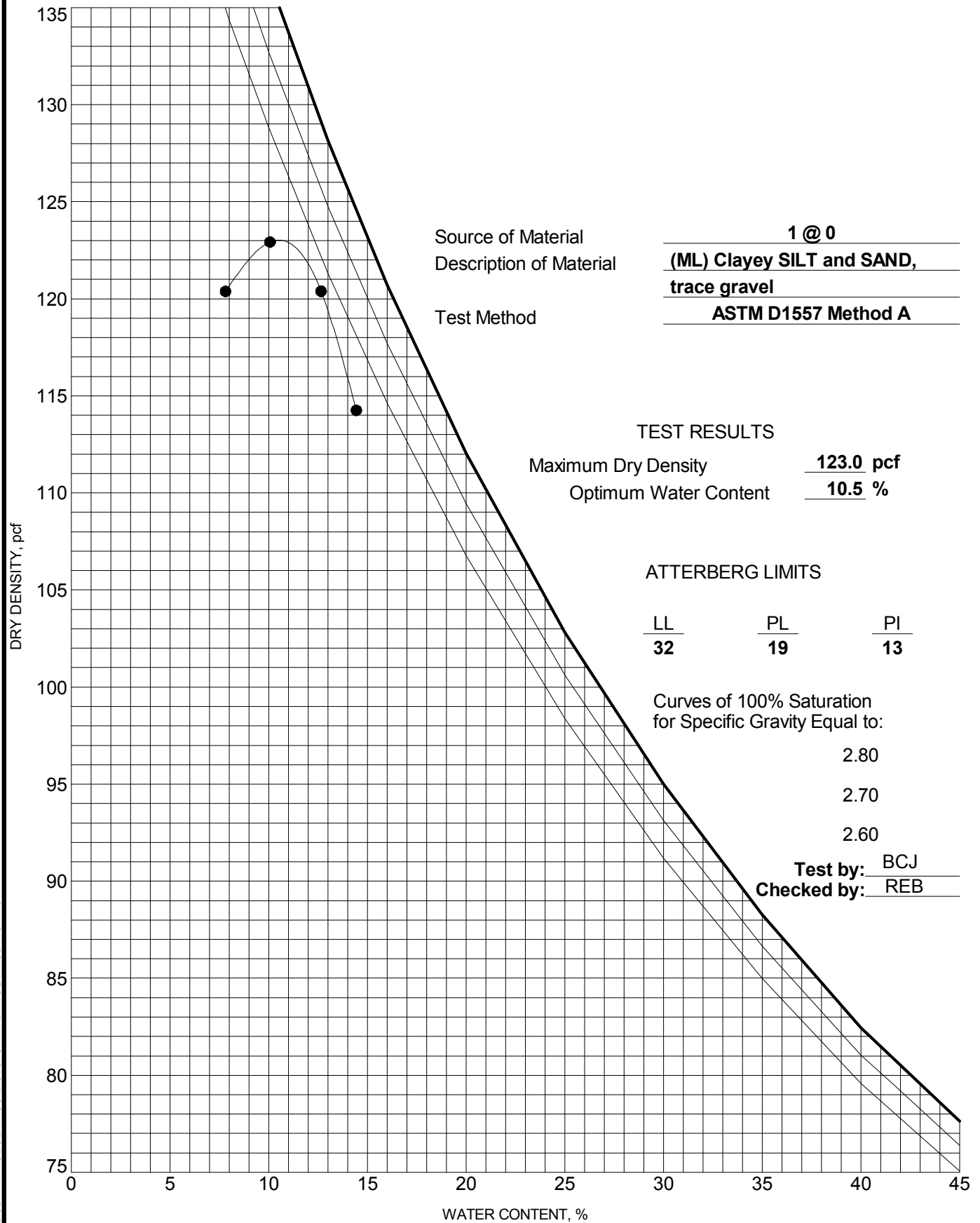
Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	1	0	12.5	0.071	0.004		1.3	36.5	39.9	22.3
☒	2	0	25	0.296	0.16	0.005	11.3	70.5	12.7	5.5



GRAIN SIZE DISTRIBUTION

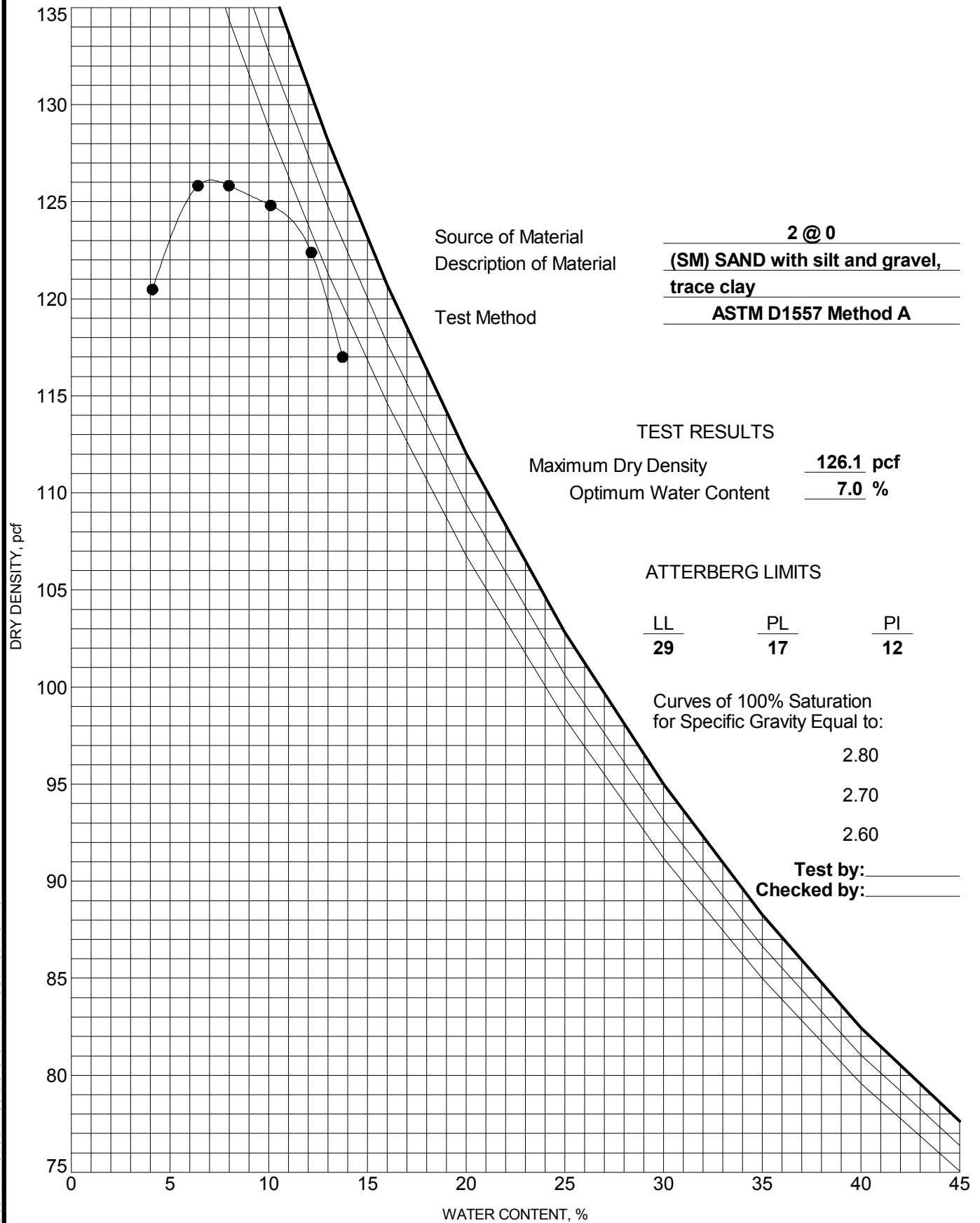
Project Name: Nodular Soil
 Project Number: 058502-T01-001Y17
 Client: RACER Trust
 Location: Saginaw, Michigan

Test by: BCJ Checked by: REB



MOISTURE-DENSITY RELATIONSHIP

Project Name: Nodular Soil
 Project Number: 058502-T01-001Y17
 Client: RACER Trust
 Location: Saginaw, Michigan



MOISTURE-DENSITY RELATIONSHIP

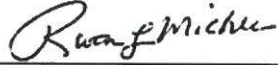
Project Name: Nodular Soil
 Project Number: 058502-T01-001Y17
 Client: RACER Trust
 Location: Saginaw, Michigan

Attachment C

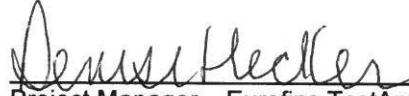
Amendment to the Approved Draft IM Work Plan to Remove PCB-impacted Sediments
EPA ID#MID 041 793 340
RACER Nodular Facility - Saginaw, Michigan

USEPA ID Number: MID 005 356 621
Revision Number 0
August 2019
Prepared by: GHD
Prepared for: RACER Trust Site

Approved By:  Date: August 14, 2019
Project Manager - GHD
John-Eric Pardys

Approved By:  Date: August 14, 2019
QA Officer - GHD
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Approved By:  Date: August 19, 2019
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Approved By:  Date: August 14, 2019
Project Manager – Eurofins TestAmerica North Canton, Ohio
Denise Heckler

Approved By:  Date: _____
USEPA Region 5 Project Manager
Zachary Sasnow
Digitally signed by ZACHARY
SASNOW
Date: 2019.08.20 08:21:53 -05'00'