REPORT

Delineation Investigation
MFD - Grand Blanc (Site #029)
Area 2
10800 South Saginaw Street
Grand Blanc, Michigan

Environmental Corporate Remediation Company, Inc.
Pontiac, Michigan

December 2007

Confidential under FOIA
Shane Noreen
LFR
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Executive summary

O'Brien & Gere conducted a Delineation Investigation of the Area 2 Phase II Environmental Site Assessment (ESA) exterior area of the General Motors Metal Fabricating Division (MFD) plant located at 10800 South Saginaw Street, Grand Blanc, Michigan (Figures 1 and 2, herein referred to as "the Site"). Area 2 is west of the main building and includes a die storage area and Storm Water Lagoon #2 (Figures 3 and 4). The purpose of the Delineation Investigation was to delineate the documented surface soil impacted locations identified in Area 2, which were above the Michigan Department of Environmental Quality (MDEQ) generic residential and/or industrial direct contact criteria. Furthermore, two locations (SS2-20 and SS2-22) were investigated to delineate the documented soil impacts above the MDEQ generic drinking water criteria. The MFD plant, associated areas immediately adjacent to the plant, and Areas 1 and 3 through 5 are not included in this Delineation Investigation report.

The general scope of services completed included:

- Completion of 14 Geoprobe® borings to depths of up to 10 ft below grade (fbg, typically 0 to 5 fbg) and collection of 75 surface soil samples
- Laboratory analysis of soil samples
- Delineation Investigation report preparation for Area 2

The Phase II ESA performed in Area 2 of the MFD Site revealed the presence of eleven impacted locations, which were investigated during this Delineation Investigation. The results of the Phase II ESA investigation (O'Brien & Gere, 2007) at these eleven impacted locations are summarized below:

1. SS2-03: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for lead and polynuclear aromatics (PAHs).
2. SS2-14: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for arsenic, lead, and PAHs, and the MDEQ industrial direct contact criteria for arsenic and lead.
3. SS2-15: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential and industrial direct contact criteria for PAHs.
4. SS2-16: The surface soil sample located along the southern property boundary of Area 2 adjacent to the Shue and Volks Warehouse exceeded the MDEQ residential direct contact criteria for PAHs.
5. SS2-19: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for PAHs.
6. SS2-20: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential drinking water protection criteria for mercury.

7. SS2-21: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for arsenic and PAHs, and the MDEQ industrial direct contact criteria for arsenic.
8. SS2-22: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential drinking water protection criteria for arsenic.
9. SS2-23: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for arsenic.
10. SS2-24: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for PAHs.
11. SS2-27 and SS2-29: The surface soil sample located in the northern die storage area in ditch adjacent to the road exceeded the MDEQ residential and industrial direct contact criteria for PAHs.

The results of the Delineation Investigation identified the approximate extent of impacts associated with the eleven impacted locations. Figure 6 illustrates the approximate areas of impacts above the MDEQ residential direct contact and/or drinking water criteria and above the MDEQ industrial direct contact criteria, respectively. An estimated 10,845 cubic yards of material above the MDEQ residential direct contact criteria exist within Area 2. An estimated 2,723 cubic yards of material above the MDEQ industrial direct contact criteria exist within Area 2.

1.0. Introduction

O'Brien & Gere conducted a Delineation Investigation of the Area 2 Phase II ESA exterior area of the General Motors Metal Fabricating Division (MFD) plant located at 10800 South Saginaw Street, Grand Blanc, Michigan (Figures 1 and 2, herein referred to as "the Site"). Area 2 is west of the main building and includes a die storage area and Storm Water Lagoon #2 (Figures 3 and 4). The purpose of the Delineation Investigation was to delineate the documented surface soil impacted locations identified in Area 2, which were above the Michigan Department of Environmental Quality (MDEQ) generic residential and/or industrial direct contact criteria. Furthermore, two locations (SS2-20 and SS2-22) were investigated to delineate the documented soil impacts above the MDEQ generic drinking water criteria. This report describes the results of additional delineation activities completed within Area 2 of the MFD Grand Blanc, Michigan facility associated with impacts identified during the Phase II ESA (O'Brien & Gere, 2007). The MFD plant, associated areas immediately adjacent to the plant, and Areas 1 and 3 through 5 are not included in this Delineation Investigation report.

1.1. Background

A Phase II ESA was performed for the exterior areas of the General Motors MFD plant located at 10800 South Saginaw Street, Grand Blanc, Michigan. The Site is presently known as MFD – Grand Blanc, and the focus of this report is an approximately 38.5 acre area called Area 2.

The original portion of the Site was constructed in 1942 as a tank arsenal. After World War II, the plant was leased from the government by the Buick Motor Division and was purchased by General Motors in 1951. During the Korean Emergency, Fisher Body produced Patton M-48 Medium Tanks. In 1955, the Site was converted to automotive body metal fabricating. The Site currently fabricates automotive body parts, as well as assembles and repairs robotic systems for automotive plants.

For the Phase II ESA, the Site was divided into the five exterior areas noted in Figure 2. Area 1 is located north-northwest of the main building and includes a parking lot (Figure 2). Area 2 fronts on Dort Highway and is located west of the main building and includes a die storage area and Storm Water Lagoon #2 (Figures 2 and 3). Area 3 fronts on South Saginaw Street and is located east of the main building and includes a lawn area and Storm Water Lagoon #1. Area 4 is located south of the main building and includes another die storage area, railroad siding areas, the power house and associated coal handling area, the wastewater treatment plant (WWTP), former underground storage tank (UST) farms, fuel storage areas, a former incinerator area, and the inactive Baler House. Area 5 is located southeast of the main building and includes an inactive land area, former waste lagoon area and Storm Water Lagoon #3. As shown in Figure 2, the five areas are located outside of the MFD plant where production operational activities occur. Areas 1 and 3 through 5 and the MFD plant (Area 6) and associated areas are not included in this Delineation Investigation report.

The purpose of this Delineation Investigation was to delineate impacted areas within Area 2. This included delineating documented surface soil impacts identified during the Phase II ESA of Area 2, including:

1. SS2-03: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for lead and polynuclear aromatics (PAHs).

2. SS2-14: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for arsenic, lead, PAHs, and the MDEQ industrial direct contact criteria for arsenic and lead.
3. SS2-15: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential and industrial direct contact criteria for PAHs.
4. SS2-16: The surface soil sample located along the southern property boundary of Area 2 adjacent to the Shue and Volks Warehouse exceeded the MDEQ residential direct contact criteria for PAHs.
5. SS2-19: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for PAHs.
6. SS2-20: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential drinking water protection criteria for mercury.
7. SS2-21: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for arsenic and PAHs, and the MDEQ industrial direct contact criteria for arsenic.
8. SS2-22: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential drinking water protection criteria for arsenic.
9. SS2-23: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for arsenic.
10. SS2-24: The surface soil sample located in the miscellaneous equipment and materials storage area exceeded the MDEQ residential direct contact criteria for PAHs.
11. SS2-27 and SS2-29: The surface soil sample located in the northern die storage area in ditch adjacent to the road exceeded the MDEQ residential and industrial direct contact criteria for PAHs.

1.2. Scope of work

O'Brien & Gere performed the Delineation Investigation to evaluate the recognized environmental conditions (RECs) identified in the Phase II ESA report associated with Area 2 of the MFD Site (O'Brien & Gere, 2007). The purpose of the Phase II ESA was to provide sufficient information regarding the potential for impacts within Area 2, and to assist in making informed business decisions regarding the property (*i.e.*, Area).

The general scope of services completed included:

- Completion of 14 Geoprobe® borings to depths of up to 10 ft below grade (fbg, typically 0 to 5 fbg) and collection of 75 surface soil samples.
- Laboratory analysis of soil samples.
- Delineation Investigation report preparation for Area 2.

Section 3 provides a more detailed description of the activities conducted during the Delineation Investigation.

2.0. Site description

The following provides a general description of the site, site topography and drainage, and the regional geology and hydrogeology of the MFD site. Specific information about these features for Area 2 as a result of the Delineation Investigation are discussed in Section 4.

2.1. Location and description

The MFD Site produces automotive sheet metal body parts and robotic systems for automotive manufacturing plants. The Site is located in an industrial and commercial area of Grand Blanc, Michigan. Area 2 is the exterior area of the MFD Site fronts on Dort Highway and is located west of the main MFD plant (see Figures 2 and 3). Area 2 was used for die and other equipment storage, with Storm Water Lagoon #2 located in the western corner of Area 2. A containment area for the dismantling of presses being readied for shipment off-site was recently constructed in Area 2 north of the main substation for the MFD Site. Area 2 also includes a small shed, pump house, and water tank.

2.2. Site topography and surface drainage features

The topography of Area 2 is generally characterized by a gentle east to west slope, with a few drainage ditches outlining the die storage areas, which act as the low points in the site area. There are also a few mounds of soil, which may be remnants from when the area was used as a test track for tanks. The topographic relief in Area 2 is about 22 ft. It varies from a high of about 842 ft above mean sea level (aMSL) at the mound located near the pump house to 820 ft (aMSL) along Dort Hwy and Storm Water Lagoon #2, located in the southwestern area of Area 2. The majority of Area 2 lies between the elevations of 836 and 828 ft aMSL. Figure 4 provides a topographic map for Area 2.

2.3. Regional geology and hydrogeology

2.3.1. Regional geology

The site is underlain by unconsolidated glacial drift soils to depths of about 120 to 160 ft beneath the MFD Site according to the Groundwater Resources Map Series for Grand Blanc Township (U of M – Flint, Nov. 1994). The Phase I ESA report noted the soils at the MFD Site consist of loam and clay loam from the Conover series with low infiltration rates. Soil boring and excavation logs conducted at the site indicate the soils beneath the Site consist either of topsoil or fill soils, which are underlain by native clays with interbedded clayey sand, silt or sand seams. Some of the sand seams were observed to be about 2 to 5 ft thick. Two to 24 in of topsoil (generally 6 to 12 in) was observed in areas where natural soils underlie the Site. The observed fill soils consisted of sandy and/or clayey soils with varying amounts of debris (slag, metal, wood, concrete, asphalt, etc.) extending to depths from about 6 in to 9 ft below grade (generally 1 to 5 ft) in areas were excavations or low area filling activities were conducted. At several locations buried topsoil was observed beneath the fill soils ranging between about 6 to 24 in thick. The native clay soils underlying the topsoil or fill soils likely extend to the top of bedrock. The Groundwater Resources Maps indicate between 80 and 90 percent of the drift soils to a depth of 100 ft consist of clay in the area of the Site.

Bedrock was not encountered during the Phase II ESA; however, bedrock in the area of the MFD Site is a stratified sequence from the Paleozoic Era. The Bedrock Geology of Michigan (MDNR, 1987) map indicates the site is underlain by the Pennsylvanian age Saginaw Formation consisting of a fine-grained sandstone and siltstone interbedded with shale, limestone, coal and gypsum. The bedrock surface is reported to vary in elevation from about 680 to 720 ft aMSL beneath the site and generally slopes toward the southwest.

2.3.2. Regional hydrogeology

The depth to ground water at the site is generally less than 12 ft; however, this may be indicative of perched ground water conditions. The Groundwater Resources Map Series for Grand Blanc Township (U of M – Flint, Nov. 1994) indicates the regional ground water table exists at elevations of about 770 to 780 ft aMSL in the area of the MFD Site, which corresponds to depths of about 50 to 70 ft below grade (fbg). The Site area is gently sloped and based on local topography, the shallow (potentially perched) ground water flow direction is generally towards the east on the eastern portion of the MFD Site and towards the west-southwest on the western portion of the Site, including Area 2. However, deeper regional ground water flow is purported to flow towards the northwest (U of M – Flint, Nov. 1994).

3.0. Site investigation activities

3.1. Soil boring installation and soil sampling

Soil borings and/or surface soil samples were placed in relation to eleven impacted sample locations identified in the Phase II ESA, as discussed in Section 1. These eleven areas were combined into sub-areas A, B, and C and the Crock Sump area, as shown on Figure 6. Area A is the southern property boundary adjacent to the Shue and Volks Warehouse. Area B is the miscellaneous equipment and materials storage area. Area C is the northern die storage area along the ditch adjacent to the road. The Crock Sump area is located on the northeast side of Area 2. Area B was further subdivided into areas B-1, B-2, B-3, and B-4, as shown on Figure 6, to better delineate the area.

The delineation soil borings were installed 20 ft north, south, east, and west from the original surface sample. A surface soil sample was collected 0 to 6 in below the surface. Soil borings delineating vertical impacts were installed to a depth up to 10 ft and a sample was collected at the top 6 in of native clay. The samples collected during the Delineation Investigation were named according to the previous Phase II ESA sample name followed by the direction from the original sample (example: SS2-14N is the delineation sample approximately 20 ft north of the original sample location SS2-14). If an additional sample was collected further north during the second mobilization it was given two direction descriptors (example: SS2-14NN). At eight of the eleven locations where a surface sample was collected during the Phase II ESA a soil boring was installed in order to evaluate vertical impacts. The three remaining locations were already vertically delineated. The letter D and depth of sample followed the original sample name to distinguish it as a deep sample at the appropriate original sample location (example: SS2-14D-4.8).

The Crock Sump had one impacted surface soil sample SS2-02 associated with it and was delineated during the Phase II ESA.

There were thirty-six surface soil samples and eight deep samples collected during the first mobilization. The soil samples were collected in Area B and C. Area B-1 contained locations SS2-19, SS2-21, SS2-22, and SS2-23, which are not contiguous but are in close proximity. Area B-2 contained location SS2-20. Area B-3 contained location SS2-24. Area B-4 contained locations SS2-03, SS2-14 and SS2-15. In Area C five surface soil samples were collected (SS2-36, SS2-37, SS2-38, SS2-39, SS2-40) along the ditch going in an east/west direction. Along the ditch at one pervious location SS2-27, a soil boring was collected in the native clay for vertical delineation.

A total of sixteen surface soil samples were collected to further delineate the impacted locations during the second mobilization. Further delineation of five locations was needed in Areas B-1, B-3, and B-4. Borings were installed 40 ft south, east, and west of SS2-14. A boring was installed 40 ft north of SS2-15. Three soil borings were installed 40 ft north, northwest, and west of SS2-24. Four surface soil samples were collected 40 ft north, south, east, and west of SS2-21. Surface soil samples were collected 40 ft south and southwest of the original location of SS2-22. In Area A, SS2-16 was delineated 30 ft east and west, and in Area C, another surface soil sample was collected further west along the ditch.

Three surface soil samples were collected to further delineate three locations in Areas B and C during the third mobilization. A sample was collected 70 ft west of the original location SS2-14 in Area B-4 called SS2-14WWW. A sample was collected 90 ft southwest of the original location SS2-21 in Area B-1. In Area C a soil sample was collected at the end of the ditch on the west side.

Three samples were collected at varying depths (SS2-14D-2, SS2-20D-3, and SS2-24D-2) to help refine the depth of impacts at these locations in Areas B-2, B-3, B-4 during the forth mobilization. A fifth mobilization was conducted to further refine the depth of impacts at the three locations investigated during the fourth mobilization and further delineate locations in Area B-3 and Area B-4. Samples were collected from the three locations at depths of three, four, five and six feet. Two soil boring samples were analyzed to delineate the area to the south and east around SS2-03. The soil borings were installed 20 ft to the south and 25 ft to the east from the original sample location. In the area to the west of SS2-14, four surface soil samples were collected. Two samples were collected 120 ft and 170 ft west of SS2-14 and two samples 20 ft north and south of sample SS2-46. One soil boring was installed 40 ft south of SS4-14SS to further delineate this location. An additional sample (SS2-43) was collected along the ditch in Area C. In Area B-1, another two samples were collected, one 60 ft west of the original location SS2-21 and one 80 ft northwest of SS2-21.

Ten surface soil samples were collected to further delineate two locations in Areas B-1 and B-4 during the sixth and seventh mobilization, respectively. Three samples were collected 40 ft, 80 ft, and 120 ft northwest of SS2-21NW. Samples were collected north, south, and east of SS2-14 to refine the delineation in this area.

The approximate locations of the fourteen borings and seventy-five surface soil samples are illustrated on Figures 6 through 10. The actual locations were chosen in the field based on the original sample location analytical results and professional judgement.

The soil borings were installed utilizing Geoprobe® drilling techniques in general accordance with the REALM/ENCORE Field Method Guideline (FMG) 2.3. Field data was recorded in a field book during soil boring installation. Soil borings were installed using 5-foot long Geoprobe® macro-core samplers. Subsurface soil samples were collected in accordance with FMG 6.1.

Macro-core samplers were cleaned, attached to the drill rods, and lowered into the borehole. After the sampler was lowered to the bottom of the borehole, it was advanced utilizing direct push techniques using the hydraulic hammer as necessary to the terminus of the sample interval. The Area 2 borings were advanced to a depth of 5 to 10 fbg. The sampler was removed from the borehole, detached from the drill rods and opened. The sample length was measured and recorded and the upper and lower ends of the sample core were discarded approximately 3 in.

Surface soil samples were either collected from the Geoprobe® samplers, or collected directly from the surface utilizing a shovel. Samples collected at sample locations SS2-14D-2, SS2-20D-3, and SS2-24D-2 were collected utilizing hand auger techniques. The soil samples were placed directly into clean, pre-labeled, sample jars for analysis. Samples were placed in a cooler with ice after collection and hand delivered to Merit Laboratories, Inc. via the laboratory's courier service.

The soil samples were submitted to the analytical laboratory for analysis using appropriate chain of custody and standard QA/QC procedures. A standard analytical data package was prepared by the laboratory for the soil samples analyzed.

The soil borings were backfilled with granular bentonite following completion of sampling. The ground surface at the boring location was restored to its original condition with soils, cold patch asphalt or concrete depending on the conditions at the boring location prior to drilling.

3.2. Decontamination procedures

Items such as drill rigs and miscellaneous heavy equipment present potential sources of interference to environmental samples. These items were cleaned using high-pressure steam cleaning methods. Other equipment and materials associated with sampling were cleaned before and after use and between discrete investigation locations.

Decontamination procedures were designed to remove particles and compounds that could affect the integrity of samples, and thus, the interpretation of environmental sampling data. The following decontamination procedures were followed for sampling equipment:

- Brushed loose soil off equipment
- Washed equipment with laboratory grade detergent (*i.e.*, Alconox or equivalent)
- Rinsed with potable water

4.0. Findings

Information obtained from the sources and activities described in Sections 1 and 3 are presented in the following section for Area 2. Information supporting the observations and findings presented in this report are provided in the tables, figures and appendices of this report.

4.1. Soil analytical results

The analytical results for detected analytes in the soil samples collected during the Delineation Investigation for Area 2 are presented in Table 1. Two surface soil samples were collected for the delineation of PAHs at SS2-16 in Area A. The east and west samples were both below the MDEQ residential direct contact criteria. The area delineated above MDEQ residential direct contact is approximately 1,232 ft^2 and extends to a depth of approximately 2 ft.

Area B-1 is located along the southern section of Area B and had impacts of arsenic and PAHs during the Phase II ESA. This area had four previous sample locations. SS2-19 was delineated for PAHs, SS2-21 was delineated for arsenic and PAHs, SS2-22 was delineated for arsenic, and SS2-23 was delineated for PAHs. Seven of the twenty-five samples collected in Area B-1 had levels above MDEQ residential direct contact for arsenic and ranged from 11.4 mg/kg at SS2-21S to 47.2 mg/kg at SS2-21WW. Five of the six locations above MDEQ residential direct contact criteria were adjacent to SS2-21. Arsenic has been delineated to the north, south, east, northwest, and southwest by delineation samples SS2-21NN, SS2-21E, SS2-21SS, and SS2-21SW, respectively; and to the west by SS2-21WWW. SS2-21NW, SS2-47, and SS2-47NW contained levels above MDEQ residential direct contact criteria for arsenic, and were delineated to the northwest by SS2-47NWNW. SS2-22WW was above the industrial direct contact criteria, but SS2-22WWW delineated this arsenic exceedance to the west completing the delineation in this area. At the deep sample locations arsenic levels ranged from 0.95 mg/kg at SS2-21D-4.8 to 1.34 mg/kg at SS2-23D-2.5, both were below MDEQ residential direct contact criteria of 7.6 mg/kg. A total of eight surface soil samples were analyzed for PAHs, and of those eight samples three locations had levels above MDEQ residential direct contact criteria for benzo(a)pyrene (2,000 ug/kg) ranging from 2,000 ug/kg at SS2-21E to 4,400 ug/kg at SS2-21S. The area was delineated by samples SS2-21NN to the north, SS2-21SS to the south, and SS2-19W to the west, which were an additional 20 ft from the original three locations and had levels below the MDEQ residential direct contact criteria. After delineation, the area above MDEQ residential direct contact criteria is approximately 31,117 ft^2 to a depth of approximately 3 fbg, and the area above MDEQ industrial direct contact is approximately 1,115 ft^2 to a depth of approximately 3 fbg.

Area B-2 is located approximately 200 ft north of Area B-1 and is the original sample location of SS2-20. This location was sampled for mercury, which exceeded the MDEQ drinking water protection criteria, but was below the residential direct contact criteria. This area was investigated to see the approximate extent of mercury impacts in this area above drinking water levels. The intermediate and deep samples collected at 3 ft and 8 ft, respectively were below the MDEQ residential drinking water and direct contact criteria. The surface soil samples were above the drinking water criteria, but were below the MDEQ residential direct contact levels of 160 mg/kg; therefore, mercury in Area 2 does not exceed the MDEQ residential direct contact criteria. The attempt to delineate these impacts indicate that the mercury impacts above the drinking water criteria at least extends to an area of 40 ft by 40 ft. Mercury is delineated to below the drinking water criteria

by other Phase II ESA sampling locations, including SS2-11, SS2-14, SS2-19, and SS2-24; therefore, no further delineation was conducted during the Delineation Investigation. Furthermore, the ground water data collected during the Phase II ESA indicates that mercury was not detected in Area 2.

Area B-3 is located approximately 190 ft to the northeast of Area B-2 and is the original sample location of SS2-24. This location was sampled for PAHs. The deep sample collected at 5 ft was above MDEQ residential direct contact criteria for benzo(a)pyrene at a level of 20,400 ug/kg and benzo(b)fluoranthene at a level of 26,000 ug/kg. The sample collected at 6 ft was non-detect completing the vertical delineation for the area. The north and west surface soil sample locations SS2-24N and SS2-24W had concentrations above MDEQ residential direct contact for benzo(a)pyrene. The three samples collected an additional 20 ft from these locations were under the MDEQ residential direct contact criteria and completed the delineation of PAHs in this area. After delineation the area above MDEQ residential direct contact criteria is approximately 2,787 ft^2 to a depth of approximately 6 fbg, and the area above MDEQ industrial direct contact is approximately 1,444 ft^2 to a depth of approximately 6 fbg.

Area B-4 is located approximately 140 ft north of Area B-2 and 250 ft northwest of Area B-3 and is the location of three original samples SS2-03, SS2-14, and SS2-15. The SS2-03 area was sampled for lead and PAHs. The SS2-14 area was sampled for arsenic, lead and PAHs. The SS2-15 area was sampled for PAHs. Surface soil sample SS2-03 was delineated by surface soil samples collected 20 ft south and 25 ft east of the original location (SS2-03), SS2-15 to the north, and SS2-14N to the west. The sample at SS2-14, collected at 2 ft was below the MDEQ residential direct contact criteria for arsenic and lead, but above the criteria for benzo(a)pyrene at a level of 2,100 ug/kg. The sample collected at 3 ft was non-detect for benzo(a)pyrene completing the vertical delineation for the area. The north, south, east and west surface soil sample locations collected to delineate SS2-14 were below MDEQ residential direct contact for lead, but above MDEQ residential direct contact criteria for arsenic and benzo(a)pyrene. Levels ranged from 7.2 mg/kg at SS2-14W to 12.1 mg/kg at SS2-14N for arsenic, and 2,800 ug/kg at SS2-14W to 6,000 ug/kg at SS2-14E for benzo(a)pyrene. Benzo(a)pyrene is delineated by the surface soil samples collected an additional 20 ft from the original location. Arsenic was delineated by SS2-15 to the north and to the south by SS2-14SSS, which is 55 ft to the south and had a level of 2.26 mg/kg. SS2-14EE delineated the area to the east. Thirteen surface soil samples were collected to the north, south, and west of SS2-14W to delineate the area for arsenic. The samples to the west of SS2-14W that were above MDEQ residential direct contact criteria for arsenic ranged from 14.3 mg/kg at SS2-14W to 91.8 mg/kg at SS2-46. The sample SS2-46WWW, which is 270 ft from SS2-14W, was below MDEQ clean up criteria with a level of 4.24 mg/kg. At SS2-46 two samples were collected to delineate 50 ft to the north and is delineated by SS2-26. Five samples were collected up to 160 ft south of SS2-46 to delineate the area. The samples to the south that were above MDEQ residential direct contact ranged from 21 mg/kg at SS2-46SSS to 59.4 mg/kg at SS2-46S. The south is delineated by SS2-47NWNW at a level of 6.15 mg/kg for arsenic.

To delineate the vertical impacts of PAHs at SS2-15, two samples were collected at depths of 3 ft and 7 ft. Both samples were non-detect for PAHs. The delineation of SS2-15 indicated that the northern location exceeded MDEQ residential direct contact cleanup criteria for benzo(a)pyrene with a level of 15,600 ug/kg. A second location was sampled an additional 20 ft north and that sample did not contain benzo(a)pyrene (*i.e.*, was non detect). The delineated area for Area B-4 was calculated for two different depths. The area adjacent to the original sample locations of SS2-03, SS2-14, and SS2-15, bordered by SS2-15NN to the north, SS2-14SS to the south, SS2-03E to the east, and SS2-14WW

to the west, had an area above MDEQ residential direct contact of approximately 8,502 ft^2 to a depth of approximately 3 ft and an area above MDEQ industrial direct contact of approximately 4,685 ft^2 to a depth of approximately 3 ft. The area to the west bordered by SS2-26 to the north, SS2-48S to the south, SS2-14WW to the east, and SS2-46WWW to the west, had an area above MDEQ residential direct contact of approximately 54,119 ft^2 to a depth of approximately 2 ft and an area above MDEQ industrial direct contact of approximately 15,711 ft^2 to a depth of approximately 2 ft.

Area C which is in the north section of the die storage lot in a ditch, 440 ft north of Area B-4. This location was sampled for PAHs and had exceedances throughout the ditch. The deep sample collected at SS2-27D at 2.5 ft was below the MDEQ direct contact criteria, which indicates that the impacts are surficial in nature. The concentrations ranged from 1800 ug/kg at SS2-37 to 38,700 ug/kg at SS2-38 for benzo(a)pyrene. Results of SS2-41 define the eastern extent of impacts, and SS2-43 defines the southern extent. The area delineated along a ditch above MDEQ residential direct contact is approximately 18,184 ft^2 to a depth of approximately 2.5 ft, and approximately 6,195 ft^2 above MDEQ industrial direct contact to a depth of approximately 2.5 ft.

The Crock Sump Area located in the northeast portion of Area 2 had one location with an exceedance. SS2-02 had benzo(a)pyrene levels above MDEQ residential direct contact with a level of 2400 ug/kg. This area was delineated during the Phase II ESA and is an area 1,078 ft^2 along a narrow ditch and extends to a depth of approximately 1 ft.

4.2. Volumes

The following section provides the volume of soil by yards (in place) to be removed from each area to restore to below residential and/or industrial direct contact criteria. Once the soils are removed and decompressed, the volume will typically increase by a factor of 20 to 30 percent.

Residential volumes

- Area A – 91 yards
- Area B1 – 3,457 yards
- Area B2 – 0 yards
- Area B3 – 619 yards
- Area B4 – 4,954 yards
- Area C – 1,684 yards
- Crock Sump Area – 40 yards
- Total – 10,845 yards

Industrial volumes

- Area A – 0 yards
- Area B1 – 124 yards
- Area B2 – 0 yards

- Area B3 – 321 yards
- Area B4 – 1,704 yards
- Area C – 574 yards
- Crock Sump Area – 0 yards
- Total – 2,723 yards

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5.0. Conclusions

The Phase II ESA performed in Area 2 of the MFD Site revealed the presence of eleven impacted locations, which were investigated during this Delineation Investigation. The approximate extent of impacts have been delineated in these areas as depicted in Figure 6.

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6.0. References

1. "Groundwater Resources Map Series, Grand Blanc Township, Genesee County, Michigan." Regional Groundwater Center, University of Michigan – Flint, November 1994.

2. "1987 Bedrock Geology of Michigan." Michigan Department of Natural Resources, 1987.

3. "Phase I Environmental Site Assessment, MFD – Grand Blanc (Site #029), Grand Blanc, Michigan." O'Brien & Gere Engineers, Inc., October 2005.

4. "Phase II Environmental Site Assessment, MFD Area 2 – Grand Blanc (Site #029), Grand Blanc, Michigan." O'Brien & Gere Engineers, Inc., May 2007

Tables

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Table 1
Summary of Soil Analytical Results
GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-03	SS2-03S	SS2-03E	SS2-14	SS2-14D-2'	SS2-14D-3'	SS2-14D-8'	SS2-14N	SS2-14N/ Dup-05	SS2-14S	SS2-14SS	SS2-14SSS
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	4.89	NA	NA	**13.5**	5.09	NA	1.08	**12.1**	**11**	**8.62**	**10.8**	2.26
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	42.9	NA	NA	**93.2**	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	**7.29**	NA	NA	**1.26**	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	**19.1**	NA	NA	**24.5**	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	**65.3**	NA	NA	**91.2**	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	**699**	**164**	**142**	**1020**	**35.2**	NA	9.2	**154**	**204**	**51.9**	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	0.076	NA	NA	**0.38**	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	<0.50	NA	NA	**0.48**	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	0.24	NA	NA	0.31	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	**645**	NA	NA	**156**	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	<330	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	NA
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	<330	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	NA
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	940	NA	NA	500	600	<300	<300	<300	<300	500	<300	NA
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	3350	NA	NA	1500	1800	<300	<300	700	1200	3700	1300	NA
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	4140	NA	NA	2300	2100	<300	<300	1200	1600	4800	1900	NA
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	3490	NA	NA	2100	2000	<300	<300	700	1600	4400	1800	NA
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	2410	NA	NA	1200	1200	<300	<300	<300	1500	3200	1300	NA
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	3040	NA	NA	1900	1600	<300	<300	900	1300	3900	1500	NA
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	3540	NA	NA	2000	1900	<300	<300	900	1500	3900	1500	NA
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<330	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	NA
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	<330	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.2E+08	7060	NA	NA	3900	3800	<300	<300	1400	2200	6300	2400	NA
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	<330	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	NA
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	2170	NA	NA	1200	1100	<300	<300	<300	1400	3200	1200	NA
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	<330	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	NA
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	NA
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	330	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	NA
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	5240	NA	NA	1800	2300	<300	<300	700	1200	2200	1100	NA
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	1.4E+07	6600	NA	NA	3400	3500	<300	<300	1800	2900	6600	2400	NA

Bold lettering indicates samples with metals concentrations exceeding the Michigan Statewide Default Background

Exceeds GSI protection criteria only

Exceeds residential drinking water protection criteria or both GSI and drinking water protection criteria

Exceeds residential direct contact criteria

(D) Calculated criterion exceeds 100 percent

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water

(M) Calculated criterion is below the analytical target detection limit

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source

(DD) Hazardous substances causes developmental effects

(NLL) Means hazardous substances is not likely to leach under most soil conditions

(NLV) Means hazardous substance is not likely to volatilize under most conditions

(ID) Means insufficient data to develop criterion

(NC) Means no criterion or value is available

(NA) Not analyzed

Table 1
Summary of Soil Analytical Results
GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-14E	SS2-14EE	SS2-14W	SS2-14WW	SS2-14WWW	SS2-15	SS2-15D-3'	SS2-15D-7'	SS2-15N	SS2-15NN	SS2-15E	SS2-15W
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	**8.53**	4.43	**7.2**	**14.3**	**39.5**	3.13	NA	NA	NA	NA	NA	NA
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	NA	NA	66	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	NA	NA	0.74	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	NA	NA	13.4	NA	NA	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	NA	NA	27.4	NA	NA	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	**160**	NA	**109**	NA	NA	**90.9**	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	NA	NA	NA	NA	NA	0.073	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	NA	NA	**0.56**	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	NA	NA	0.21	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	NA	NA	**100**	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	500	<300	<300	<300	NA	400	<300	<300	1600	<300	<300	<300
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	<300	<300	<300	<300	NA	<300	<300	<300	<300	<300	<300	<300
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	1300	<300	500	<300	NA	1000	<300	<300	3800	<300	<300	<300
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	4600	900	1900	1000	NA	2100	<300	<300	13000	<300	600	1300
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	6000	1400	2800	1500	NA	3000	<300	<300	15600	<300	1100	1900
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	6500	1200	3200	1400	NA	3200	<300	<300	17400	<300	800	1500
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	5000	1100	2100	900	NA	1200	<300	<300	9900	<300	900	1300
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	4400	1000	2400	1200	NA	2700	<300	<300	12300	<300	700	1300
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	5000	900	2100	1200	NA	3000	<300	<300	14800	<300	600	1300
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	<300	<300	<300	NA	<300	<300	<300	<300	<300	<300	<300
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	3600	1400	3500	2300	NA	8000	<300	<300	25600	<300	1200	2700
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	400	<300	<300	<300	NA	400	<300	<300	1300	<300	<300	<300
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	3400	900	1900	900	NA	1400	<300	<300	10200	<300	800	1300
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	<300	<300	<300	<300	NA	<300	<300	<300	<300	<300	<300	<300
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	<300	<300	<300	<300	NA	NA	<300	<300	<300	<300	<300	<300
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	<300	<300	<300	<300	NA	<300	<300	<300	<300	<300	<300	<300
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	4900	600	2200	1200	NA	4700	<300	<300	15300	400	600	1300
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	10500	1500	3900	2200	NA	6000	<300	<300	34700	<300	1400	2700

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Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-16	SS2-16E	SS2-16E/ Dup-09	SS2-16W	SS2-19	SS2-19/ Dup-08	SS2-19D-3'	SS2-19N	SS2-19S	SS2-19E	SS2-19W	SS2-20	SS2-20D-3'	SS2-20D-8'
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	5.62	NA	NA	NA	3.69	3.41	NA	NA	NA	NA	NA	3.36	NA	NA
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	62.1	NA	NA	NA	**84.3**	**101**	NA	NA	NA	NA	NA	30.9	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	**3.5**	NA	NA	NA	**1.88**	**1.72**	NA	NA	NA	NA	NA	**1.51**	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	**49.1**	NA	NA	NA	**22.5**	**90.3**	NA	NA	NA	NA	NA	12.8	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	**76.6**	NA	NA	NA	**100**	**258**	NA	NA	NA	NA	NA	**128**	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	**229**	NA	NA	NA	**103**	**143**	NA	NA	NA	NA	NA	**94**	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	**0.289**	NA	NA	NA	**0.552**	**0.275**	NA	NA	NA	NA	NA	**2.760**	<0.050	<0.050
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	**0.83**	NA	NA	NA	**0.79**	**0.61**	NA	NA	NA	NA	NA	**0.49**	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	0.17	NA	NA	NA	0.41	0.44	NA	NA	NA	NA	NA	0.15	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	**755**	NA	NA	NA	**1960**	**1310**	NA	NA	NA	NA	NA	**613**	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	<300	<300	<300	<300	<300	300	400	<300	<300	<300	<300	<300	NA	NA
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	600	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	NA	NA
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	600	<300	<300	<300	<300	1000	500	<300	<300	<300	<300	<300	NA	NA
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	2100	500	750	<300	500	2700	1300	<300	500	<300	<300	<400	NA	NA
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	3300	700	1210	<300	1200	3800	1400	<300	600	<300	300	900	NA	NA
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	4600	1000	2960	<300	1300	4100	1200	<300	600	<300	<300	1300	NA	NA
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	1200	600	880	<300	400	1300	1000	<300	500	<300	<300	400	NA	NA
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	4100	800	3050	<300	1300	3600	1300	<300	600	<300	<300	700	NA	NA
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	3700	800	1410	<300	1200	3600	1400	<300	600	<300	<300	700	NA	NA
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<400	NA	NA
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	5700	1100	2040	300	2200	7200	3600	<300	1100	<300	500	1000	NA	NA
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	<300	<300	<300	<300	<300	400	<300	<300	<300	<300	<300	<400	NA	NA
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	1400	500	830	<300	500	1500	1000	<300	500	<300	<300	600	NA	NA
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<400	NA	NA
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	NA	<300	<300	<300	NA	NA	<300	<300	<300	<300	<300	NA	NA	NA
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<400	NA	NA
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	1800	400	580	<300	900	3900	3200	<300	700	<300	300	500	NA	NA
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	3800	1100	1910	300	1800	6000	3400	<300	1000	<300	500	1200	NA	NA

Bold lettering indicates samples with metals concentrations exceeding the Michigan Statewide Default Background

Exceeds GSI protection criteria only

Exceeds residential drinking water protection criteria or both GSI and drinking water protection criteria

Exceeds residential direct contact criteria

(D) Calculated criterion exceeds 100 percent

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water

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(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source

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GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-20N	SS2-20S	SS2-20E	SS2-20W	SS2-21	SS2-21D-4.8'	SS2-21N	SS2-21NN	SS2-21S	SS2-21SS	SS2-21SS/Dup-08	SS2-21E	SS2-21EE
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	NA	NA	NA	NA	**8.24**	0.95	5.45	NA	**11.4**	5.6	4.53	3.26	NA
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	NA	**161**	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	NA	**4.98**	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	NA	**81.5**	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	NA	**153**	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	NA	NA	NA	NA	**284**	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	**2.761**	**5.976**	**2.736**	**2.242**	**0.175**	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	NA	**1.16**	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	NA	**812**	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	<300
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	<300
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	NA	NA	NA	NA	400	<300	500	<300	400	<300	<300	<300	500
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	NA	NA	NA	NA	1400	<300	2100	<300	2900	<300	<300	1700	2000
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	NA	NA	NA	NA	2100	<300	2500	300	4400	<300	400	2000	2700
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	NA	NA	NA	NA	2100	<300	2500	400	4100	<300	500	2000	2600
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	NA	NA	NA	NA	1400	<300	2100	<300	3800	<300	400	1600	1700
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	NA	NA	NA	NA	1800	<300	2200	<300	3800	<300	400	1900	2200
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	NA	NA	NA	NA	1900	<300	2500	<300	3300	<300	300	1800	2200
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	700
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	NA	NA	NA	NA	3600	<300	4300	500	3600	<300	300	2300	4100
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	<300
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	NA	NA	NA	NA	1400	<300	2000	<300	3600	<300	400	1600	1700
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	<300
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	NA	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	NA	NA	NA	NA	<300	<300	<300	<300	<300	<300	<300	<300	<300
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	NA	NA	NA	NA	1600	<300	2400	<300	1800	<300	<300	900	2300
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	NA	NA	NA	NA	3100	<300	4500	400	4200	<300	300	2800	3800

Bold lettering indicates samples with metals concentrations exceeding the Michigan Statewide Default Background

Exceeds GSI protection criteria only

Exceeds residential drinking water protection criteria or both GSI and drinking water protection criteria

Exceeds residential direct contact criteria

(D) Calculated criterion exceeds 100 percent

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water

(M) Calculated criterion is below the analytical target detection limit

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source

(DD) Hazardous substances causes developmental effects

(NLL) Means hazardous substances is not likely to leach under most soil conditions

(NLV) Means hazardous substance is not likely to volatilize under most conditions

(ID) Means insufficient data to develop criterion

(NC) Means no criterion or value is available

(NA) Not analyzed

Table 1
Summary of Soil Analytical Results
GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-21W	SS2-21W/ Dup-03	SS2-21WW	SS2-21WWW	SS2-21WWW/ Dup-11	SS2-21NW	SS2-21SW	SS2-22	SS2-22D-1.2'	SS2-22N	SS2-22E	SS2-22S
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	**12.7**	**14.1**	**47.2**	**7.14**	**6.35**	**28.7**	**6.16**	5.66	1.08	**7.33**	4.81	4.69
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	NA	NA	NA	NA	**91.9**	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	NA	NA	NA	NA	**1.27**	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	NA	NA	NA	NA	**20**	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	NA	NA	NA	NA	**126**	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	NA	NA	NA	NA	NA	NA	NA	**66**	NA	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	NA	NA	NA	NA	NA	NA	NA	0.127	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	NA	NA	NA	NA	**0.61**	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	NA	NA	NA	NA	0.66	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	NA	NA	NA	NA	**1460**	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	<300	<300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	<300	<300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	<300	300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	<300	1300	NA	NA	NA	NA	NA	300	NA	NA	NA	NA
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	1300	NA	NA	NA	NA	NA	800	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	<300	1200	NA	NA	NA	NA	NA	800	NA	NA	NA	NA
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	<300	1000	NA	NA	NA	NA	NA	500	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	<300	1200	NA	NA	NA	NA	NA	700	NA	NA	NA	NA
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	<300	1400	NA	NA	NA	NA	NA	700	NA	NA	NA	NA
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	<300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	<300	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	<300	2100	NA	NA	NA	NA	NA	1300	NA	NA	NA	NA
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	<300	<300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	<300	1000	NA	NA	NA	NA	NA	500	NA	NA	NA	NA
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	6200	<300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	2400	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	**3500**	<300	NA	NA	NA	NA	NA	<300	NA	NA	NA	NA
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	<300	1300	NA	NA	NA	NA	NA	500	NA	NA	NA	NA
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	<300	2300	NA	NA	NA	NA	NA	1100	NA	NA	NA	NA

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(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source

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(NLL) Means hazardous substances is not likely to leach under most soil conditions

(NLV) Means hazardous substance is not likely to volatilize under most conditions

(ID) Means insufficient data to develop criterion

(NC) Means no criterion or value is available

(NA) Not analyzed

Table 1
Summary of Soil Analytical Results
GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	MDEQ Criteria: Residential Drinking Water Protection	MDEQ Criteria: GSI Protection	MDEQ Criteria: Residential Indoor Air	MDEQ Criteria: Industrial Indoor Air	MDEQ Criteria: Residential Direct Contact	MDEQ Criteria: Industrial Direct Contact	SS2-22W	SS2-22WW	SS2-22SW	SS2-23	SS2-23D-2.5'	SS2-23N	SS2-23E	SS2-23E/ Dup-07	SS2-23S	SS2-23W	SS2-24	SS2-24D-2'	SS2-24D-3'	SS2-24D-5'
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	**18**	5.05	1.22	**15.7**	1.34	4.55	**7.51**	**7.32**	2.69	2.83	2.49	NA	NA	NA
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	**79.4**	NA	NA	NA	NA	NA	NA	17.6	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	0.85	NA	NA	NA	NA	NA	NA	**1.55**	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	7.4	NA	NA	NA	NA	NA	NA	15	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	28.1	NA	NA	NA	NA	NA	NA	**40.9**	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	NA	NA	NA	**34.8**	NA	NA	NA	NA	NA	NA	**314**	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	NA	NA	NA	0.071	NA	NA	NA	NA	NA	NA	**0.701**	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	**1.08**	NA	NA	NA	NA	NA	NA	0.36	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	0.14	NA	NA	NA	NA	NA	NA	0.12	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	**91.8**	NA	NA	NA	NA	NA	NA	**1040**	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	NA	NA	NA	<300	NA	NA	NA	NA	NA	NA	<300	500	4400	4800
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	NA	NA	NA	<300	NA	NA	NA	NA	NA	NA	<300	<300	<500	<500
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	NA	NA	NA	<200	NA	NA	NA	NA	NA	NA	700	1000	6600	8900
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	NA	NA	NA	700	NA	NA	NA	NA	NA	NA	1800	3000	14700	19200
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	NA	NA	NA	1300	NA	NA	NA	NA	NA	NA	2300	3400	15000	20400
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	NA	NA	NA	1500	NA	NA	NA	NA	NA	NA	2400	3000	16900	26000
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	NA	NA	NA	800	NA	NA	NA	NA	NA	NA	1400	1900	4500	4400
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	NA	NA	NA	1100	NA	NA	NA	NA	NA	NA	2000	3200	13200	20800
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	NA	NA	NA	1200	NA	NA	NA	NA	NA	NA	2100	3300	15400	19000
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	NA	NA	NA	<300	NA	NA	NA	NA	NA	NA	<300	<300	2100	<500
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	NA	NA	NA	2900	NA	NA	NA	NA	NA	NA	4600	6600	37400	58300
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	NA	NA	NA	<300	NA	NA	NA	NA	NA	NA	<300	500	4300	6000
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	NA	NA	NA	800	NA	NA	NA	NA	NA	NA	1400	1800	5000	5200
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	NA	NA	NA	<300	NA	NA	NA	NA	NA	NA	<300	<300	1400	3600
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<300	900	2400
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	NA	NA	NA	<300	NA	NA	NA	NA	NA	NA	<300	<300	1800	13700
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	NA	NA	NA	1300	NA	NA	NA	NA	NA	NA	2700	4400	31800	51100
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	NA	NA	NA	2200	NA	NA	NA	NA	NA	NA	4100	6200	35100	35100

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Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-24D-6'	SS2-24D-8.5'	SS2-24N	SS2-24NN	SS2-24E	SS2-24S	SS2-24S/ Dup-06	SS2-24W	SS2-24WW	SS2-24NW	SS2-27	SS2-27D-2.5'
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	<300	<300	400	<300	<300	<300	<300	400	<300	<300	800	<300
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	<300	<300	800	<300	<300	<300	<300	900	<300	<300	4100	<300
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	<300	<300	2700	700	<300	600	<300	3000	700	1100	26400	<300
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	<300	3000	1000	600	900	<300	3200	1100	1400	27100	400
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	<300	<300	2900	1000	<300	800	<300	2500	1100	1500	32800	<300
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	<300	<300	2300	700	<300	700	<300	2300	1100	800	6600	<300
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	<300	<300	2900	1000	<300	600	<300	3200	900	800	24600	<300
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	<300	<300	3000	1000	<300	700	<300	3200	800	1100	25300	<300
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	900	<300
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	<300	<300	4700	1300	500	1400	<300	5400	1200	1900	45000	400
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	<300	<300	300	<300	<300	<300	<300	400	<300	<300	800	<300
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	<300	<300	2100	700	<300	600	<300	2300	900	800	8600	<300
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	NA	<300
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	<300	<300	3100	700	<300	700	<300	3900	500	1200	12700	<300
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.1E+07	<300	<300	5200	1400	600	1600	<300	6300	1300	2000	42100	500

Bold lettering indicates samples with metals concentrations exceeding the Michigan Statewide Default Background

Exceeds GSI protection criteria only

Exceeds residential drinking water protection criteria or both GSI and drinking water protection criteria

Exceeds residential direct contact criteria

(D) Calculated criterion exceeds 100 percent

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water

(M) Calculated criterion is below the analytical target detection limit

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source

(DD) Hazardous substances causes developmental effects

(NLL) Means hazardous substances is not likely to leach under most soil conditions

(NLV) Means hazardous substance is not likely to volatilize under most conditions

(ID) Means insufficient data to develop criterion

(NC) Means no criterion or value is available

(NA) Not analyzed

Table 1
Summary of Soil Analytical Results
GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	Residential Drinking Water Protection	GSI Protection	Residential Indoor Air	Industrial Indoor Air	Residential Direct Contact	Industrial Direct Contact	SS2-29	SS2-36	SS2-37	SS2-37/Dup-04	SS2-38	SS2-39	SS2-40	SS2-41	SS2-42	SS2-43	SS2-43/Dup-10	SS2-46	SS2-46N
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**91.8**	**45.2**
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	300	<300	<300	<300	3000	1100	<300	<300	<300	<500	<400	NA	NA
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	<300	<300	<300	<300	<300	<300	<300	<300	<300	<500	<400	NA	NA
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	700	800	400	300	11100	5100	<300	600	700	<500	<400	NA	NA
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	2100	3900	1900	1600	46500	12800	<300	3300	4500	1300	800	NA	NA
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	2800	3600	1800	1500	38700	10400	700	4100	5100	1100	700	NA	NA
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	3000	3300	1900	1400	34600	9600	700	3800	4400	1600	1000	NA	NA
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	900	2200	1100	900	22400	6000	700	2100	2600	<500	<400	NA	NA
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	2700	3300	1300	1300	38000	9700	400	3400	4800	1200	800	NA	NA
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	2600	4200	1800	1800	45000	12900	<300	3500	5000	1700	1100	NA	NA
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	<300	<300	<300	<300	<300	<300	<300	800	<300	<500	<400	NA	NA
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	5100	6800	3400	2800	78400	26500	900	6100	8800	2300	1400	NA	NA
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	<300	<300	<300	<300	3400	1900	<300	<300	<300	<500	<400	NA	NA
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	2000	2200	1100	1000	24000	6200	600	2200	2600	<500	<400	NA	NA
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	<300	<300	<300	<300	<300	<300	<300	<300	<300	700	500	NA	NA
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	NA	<300	<300	<300	<300	<300	<300	<300	<300	500	400	NA	NA
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	<300	<300	<300	<300	<300	<300	<300	<300	<300	<500	<400	NA	NA
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	2900	3200	1400	1200	39100	18200	400	2200	3500	800	500	NA	NA
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	4700	8100	3700	3200	88900	28000	1000	6000	8300	2000	1200	NA	NA

Bold lettering indicates samples with metals concentrations exceeding the Michigan Statewide Default Background

Exceeds GSI protection criteria only

Exceeds residential drinking water protection criteria or both GSI and drinking water protection criteria

Exceeds residential direct contact criteria

(D) Calculated criterion exceeds 100 percent

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water

(M) Calculated criterion is below the analytical target detection limit

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source

(DD) Hazardous substances causes developmental effects

(NLL) Means hazardous substances is not likely to leach under most soil conditions

(NLV) Means hazardous substance is not likely to volatilize under most conditions

(ID) Means insufficient data to develop criterion

(NC) Means no criterion or value is available

(NA) Not analyzed

Table 1
Summary of Soil Analytical Results
GM MFD
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Statewide Default Background Levels	MDEQ Criteria: Residential Drinking Water Protection	MDEQ Criteria: GSI Protection	MDEQ Criteria: Residential Indoor Air	MDEQ Criteria: Industrial Indoor Air	MDEQ Criteria: Residential Direct Contact	MDEQ Criteria: Industrial Direct Contact	SS2-46NN	SS2-46S	SS2-46SS	SS2-46SSS	SS2-46W	SS2-46WW	SS2-46WWW	SS2-47	SS2-47NW	SS2-47NWNW	SS2-48	SS2-48S
Arsenic	mg/kg	5.8	4.6	70 (X)	NLV	NLV	7.6	37	**22.4**	**59.4**	**26.7**	**21**	**48.1**	**29.7**	4.24	**32.8**	**24.1**	**6.15**	**28**	**50.7**
Barium	mg/kg	75	1300	440 (G,X)	NLV	NLV	37000	1.3E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	1.2	6	3 (G,X)	NLV	NLV	550	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	18	1.0E+6 (D)	1.0E+6 (G,X,D)	NLV	NLV	7.9E+05	1.0E+6(D)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	32	5800	73 (G)	NLV	NLV	20000	73000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead (Total)	mg/kg	21	700	2500 (G,X)	NLV	NLV	400	900 (DD)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	0.13	1.7	0.050 (M); 0.0012	48	89	160	580	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	0.41	4	0.4	NLV	NLV	2600	9600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	1	4.5	100 (M); 27	NLV	NLV	2500	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	47	2400	170 (G)	NLV	NLV	1.7E+05	6.3E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/kg	NC	3.0E+05	4400	1.9E+08	3.5E+08	4.1E+07	1.3E+08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ug/kg	NC	5900	ID	1.60E+06	3.00E+06	1.6E+06	5.2E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ug/kg	NC	41000	ID	1.0E+9(D)	1.0E+9(D)	2.3E+08	7.3E+08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/kg	NC	NLL	NLL	ID	ID	20000	80000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	ug/kg	NC	NLL	NLL	NLV	NLV	2.5E+06	7.0E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/kg	NC	NLL	NLL	NLV	NLV	2.0E+05	8.0E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/kg	NC	9400	1100	NLV	NLV	5.3E+05	2.4E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/kg	NC	NLL	NLL	ID	ID	2.0E+06	8.0E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(ah)anthracene	ug/kg	NC	NLL	NLL	NLV	NLV	2000	8000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/kg	NC	NLL	1700	ID	ID	ID	ID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/kg	NC	7.30E+05	5500	1E+9 (D)	1.0E+9 (D)	4.6E+07	1.3E+08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/kg	NC	3.9E+05	5300	5.8E+08	1.0E+9(D)	2.7E+07	8.7E+07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/kg	NC	NLL	NLL	NLV	NLV	20000	80000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/kg	NC	57000	ID	ID	ID	8.1E+06	2.6E+07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	ug/kg	NC	NC	NC	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/kg	NC	35000	870	2.5E+05	4.7E+05	1.6E+07	5.2E+07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ug/kg	NC	56000	5300	2.8E+06	5.1E+06	1.6E+06	5.2E+06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/kg	NC	4.8E+05	ID	1.0E+9(D)	1.0E+9(D)	2.9E+07	8.4E+07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Bold lettering indicates samples with metals concentrations exceeding the Michigan Statewide Default Background

Exceeds GSI protection criteria only

Exceeds residential drinking water protection criteria or both GSI and drinking water protection criteria

Exceeds residential direct contact criteria

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(NC) Means no criterion or value is available

(NA) Not analyzed

Figures

Confidential under FOIA

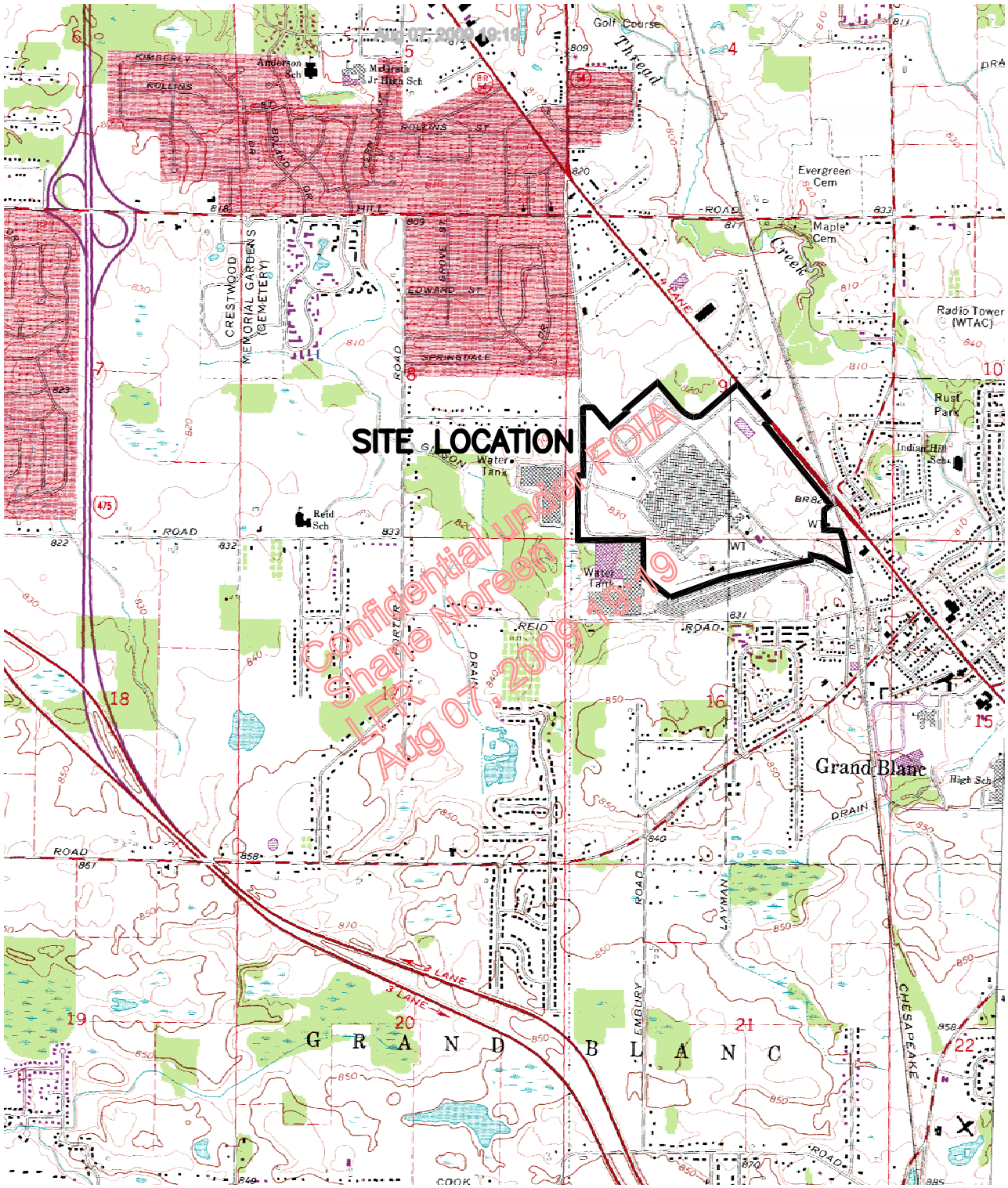
Shane Noreen

LFR

Aug 07, 2009 19:19

I:\078\4966\37404\dwg\Plant Drawings\FINAL DWG\001.DWG

FIGURE 1



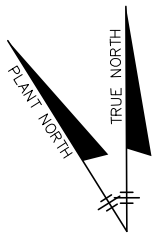
MICHIGAN
QUADRANGLE LOCATION

4966.37404
MAY 2007

GENERAL MOTORS
MFD – GRAND BLANC
GRAND BLANC, MICHIGAN

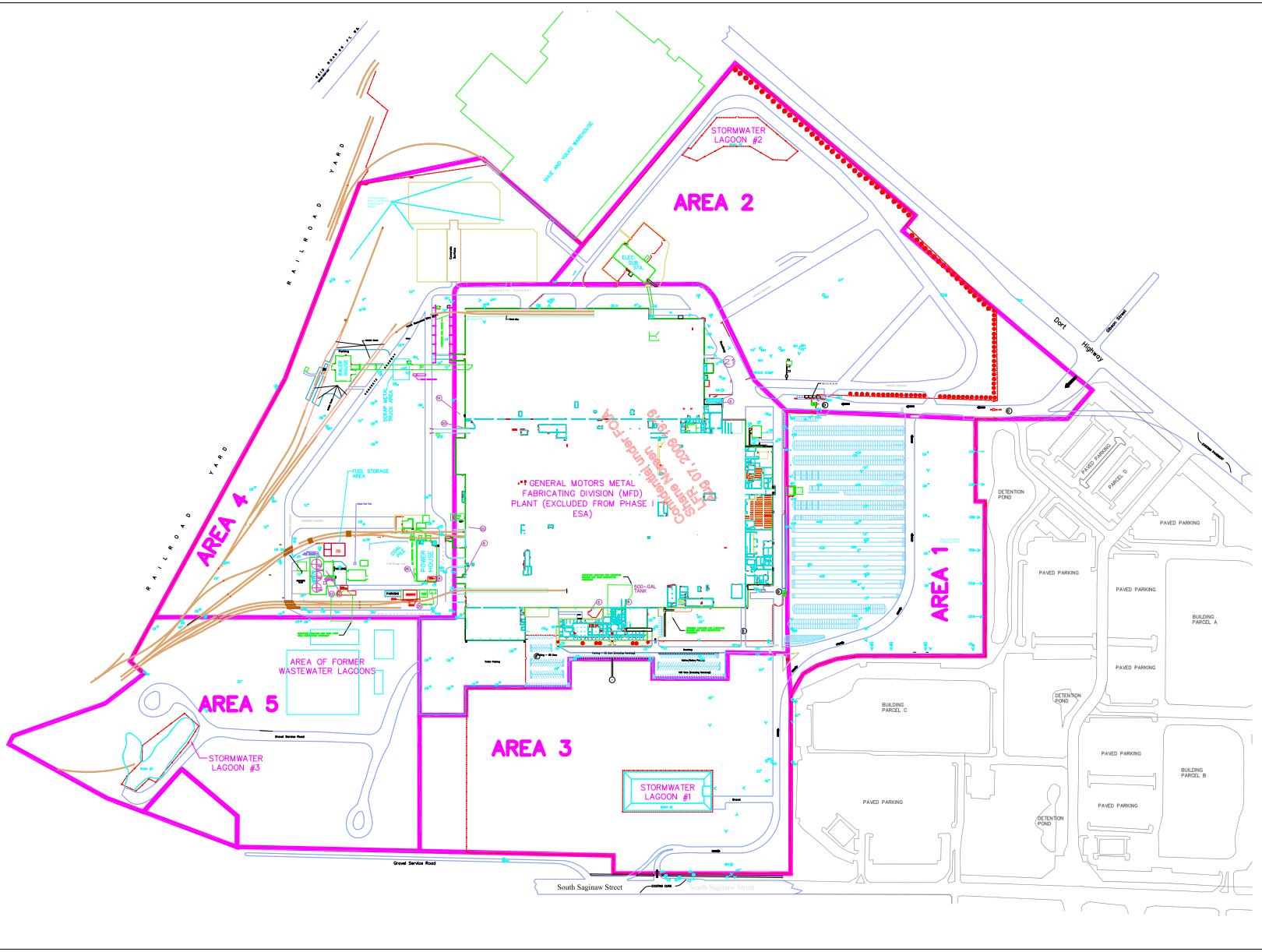
SITE LOCATION

0 1
APPROXIMATE SCALE
ONE MILE



O'BRIEN & GERE
ENGINEERS INC.

10/17/06 078 LAT



SITE LAYOUT

GENERAL MOTORS
MFD – GRAND BLANC
(SITE #29)
GRAND BLANC, MICHIGAN

FIGURE 2

4966-37404.002
MAY 2007

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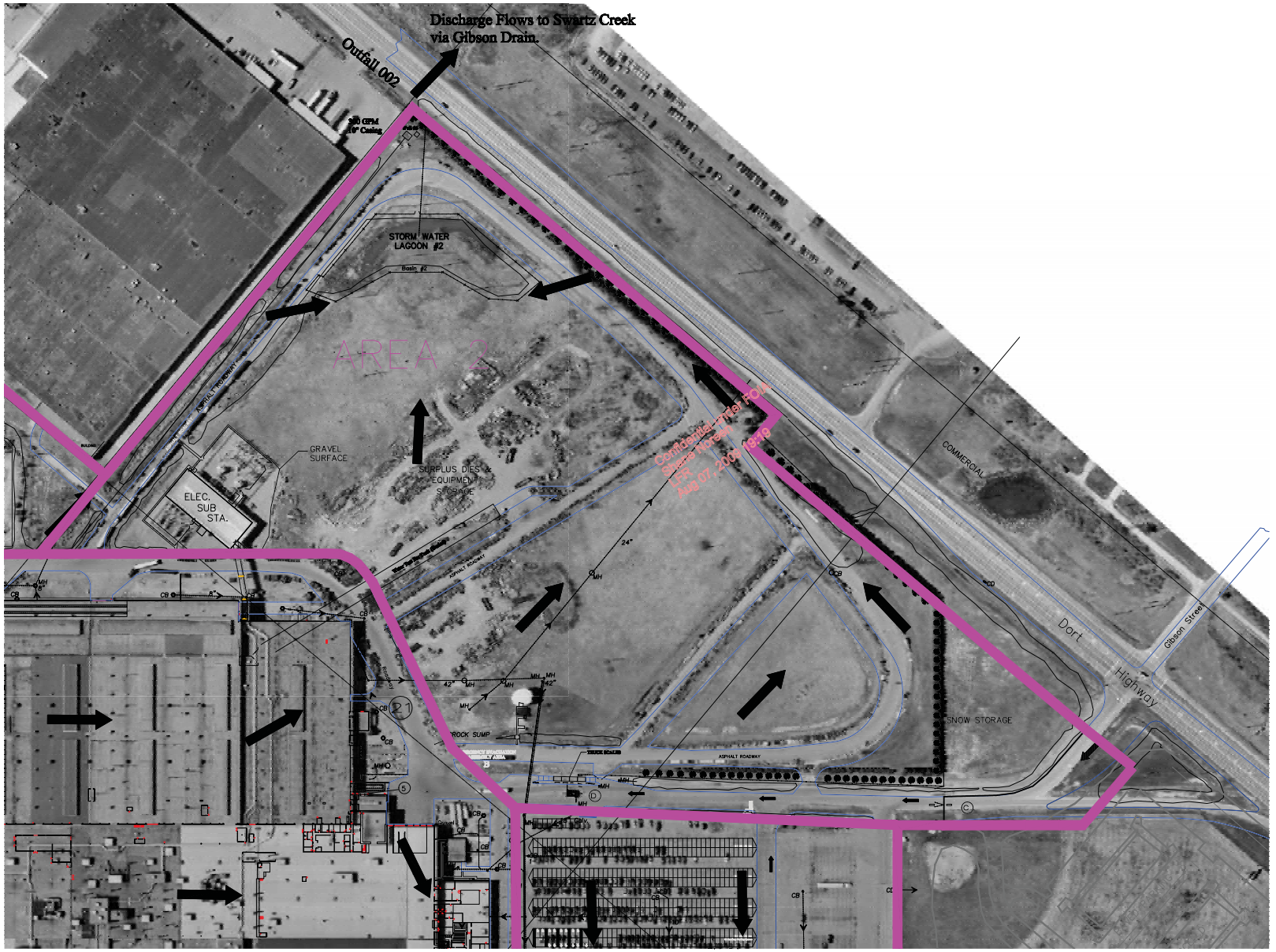

PLANT NORTH
TRUE NORTH

1"=100' 100 0 100

AREA 2 SITE MAP WITH AERIAL PHOTOGRAPH

GENERAL MOTORS
MFD – GRAND BLANC
(ENCORE SITE #29)
GRAND BLANC, MICHIGAN

FIGURE 3

4966-37404.003
FEBRUARY 2007

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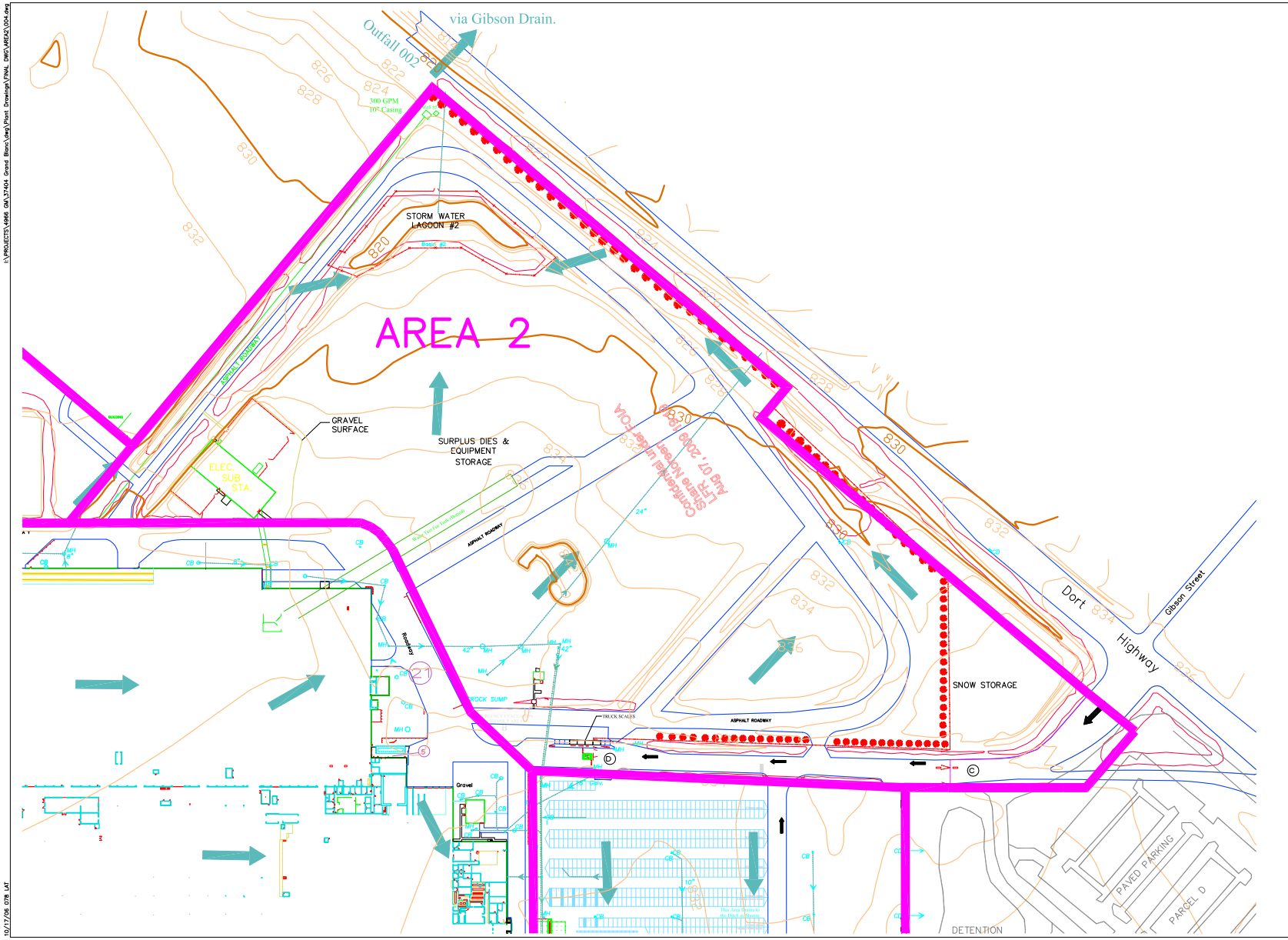
Aug 07, 2009 10:19



PLANT NORTH

TRUE NORTH

1"=100' 100 0 100

AREA 2 SITE MAP WITH TOPOGRAPHY

GENERAL MOTORS
MFD – GRAND BLANC
(SITE #29)
GRAND BLANC, MICHIGAN

FIGURE 4

4966-37404.004
MAY 2007

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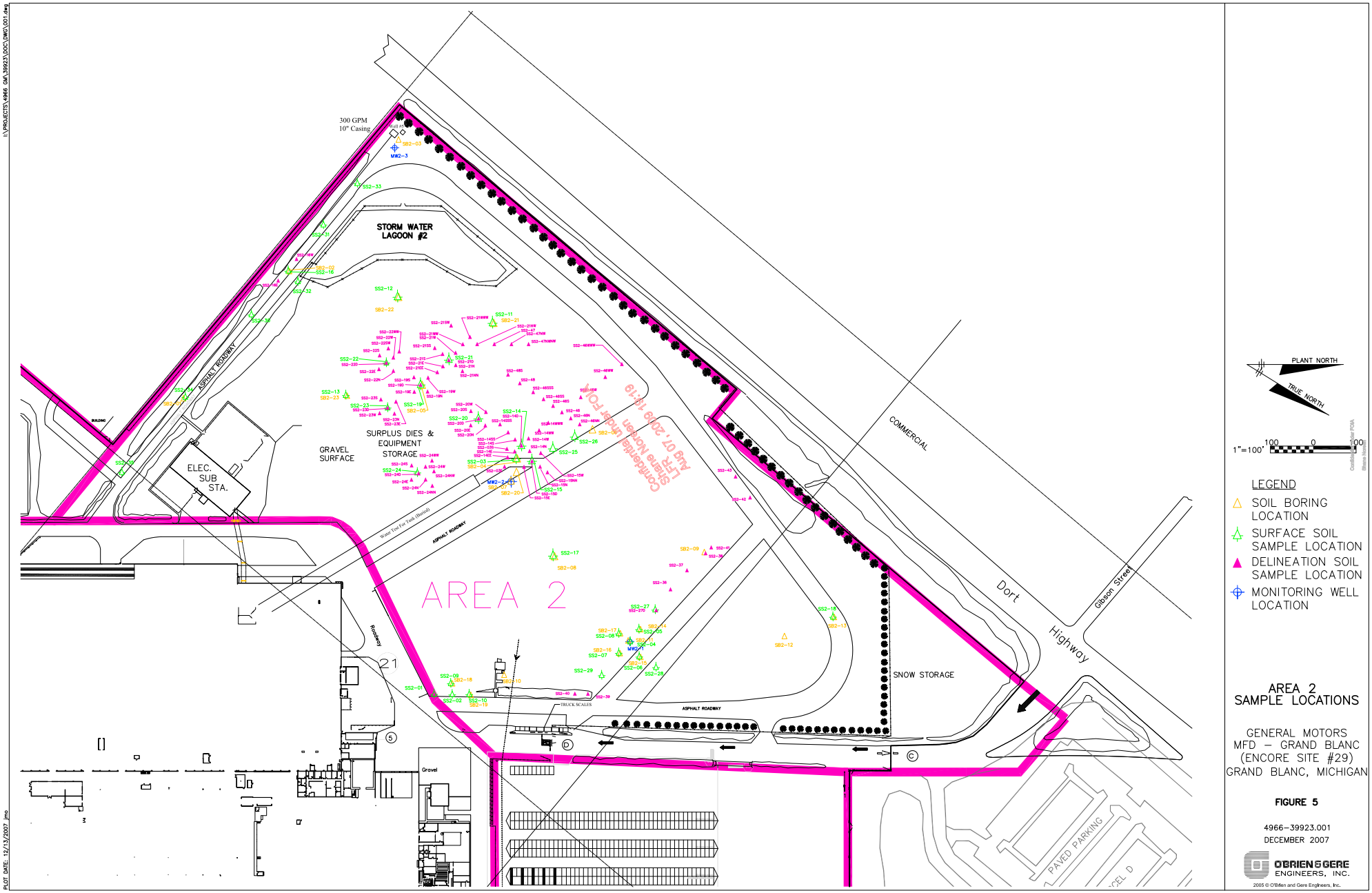

AREA 2
SAMPLE LOCATIONS

GENERAL MOTORS
MFD – GRAND BLANC
(ENCORE SITE #29)
GRAND BLANC, MICHIGAN

FIGURE 5

4966–39923.001
DECEMBER 2007

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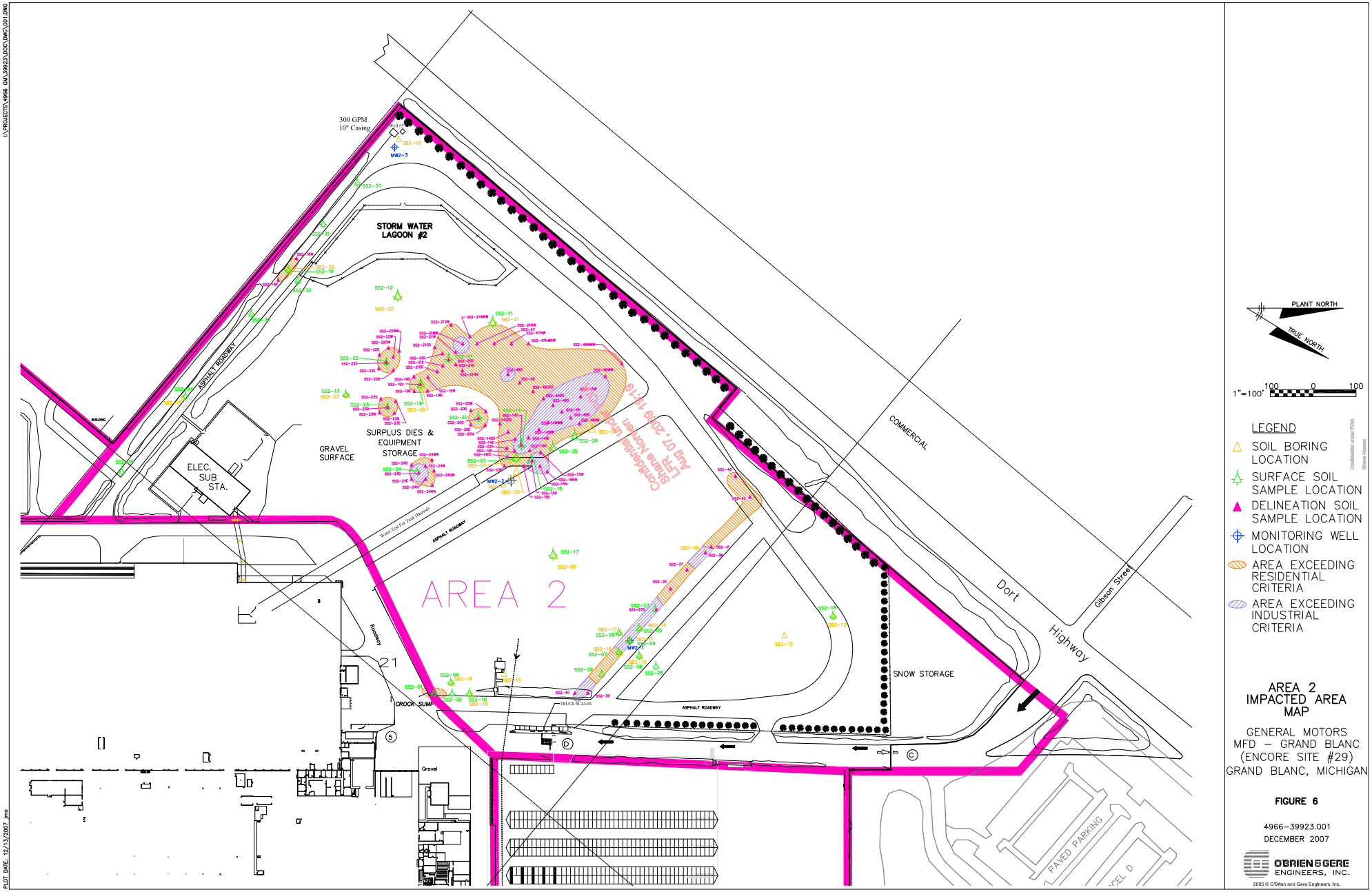
ENGINEERS, INC.



AREA 2 IMPACTED AREA MAP

GENERAL MOTORS
MFD – GRAND BLANC
(ENCORE SITE #29)
GRAND BLANC, MICHIGAN

FIGURE 6

4966-39923.001
DECEMBER 2007

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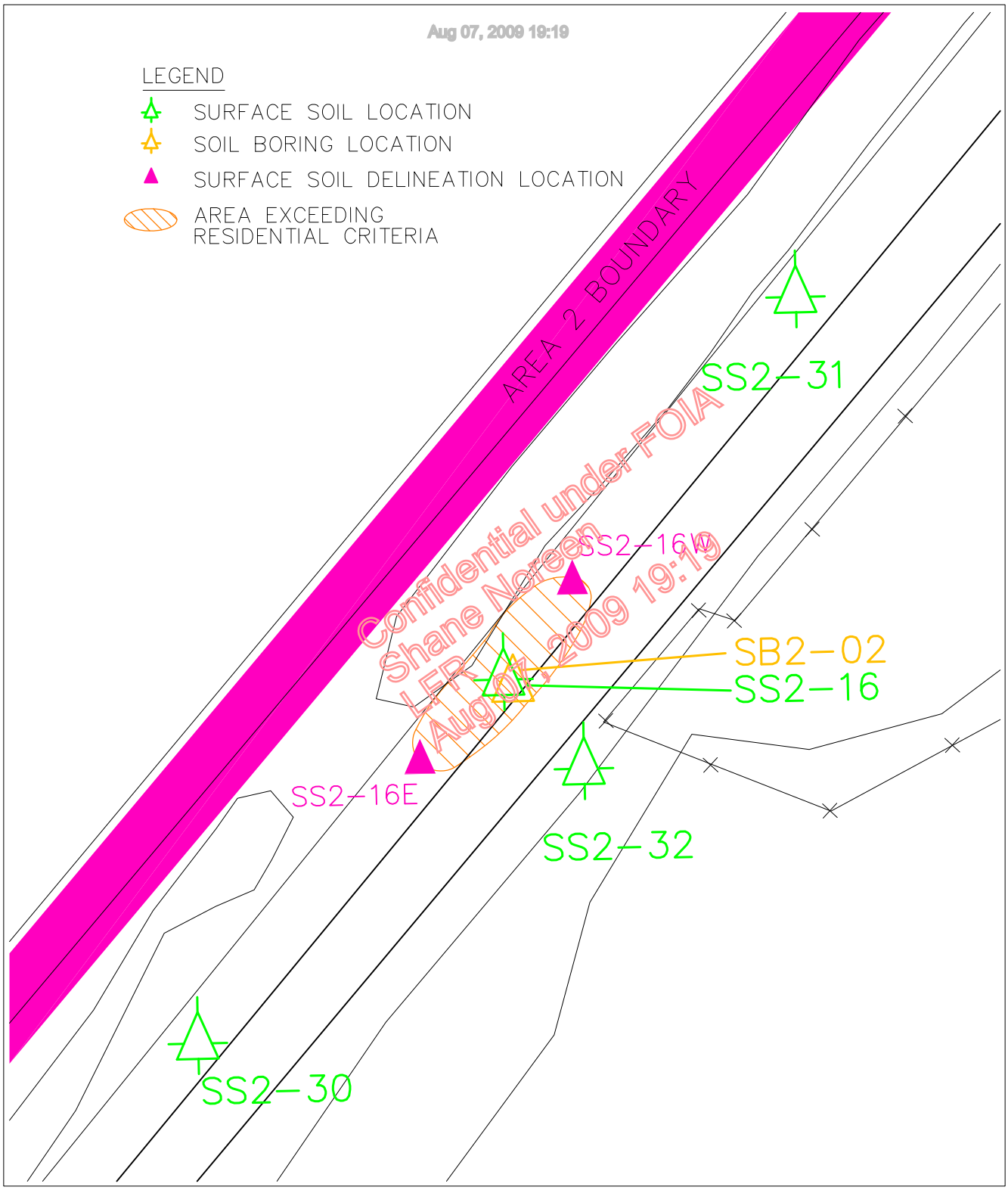
PROJECTS\GM-4966\39923\DWG\001.DWG

FIGURE 7



GENERAL MOTORS
MFD – GRAND BLANC
GRAND BLANC, MICHIGAN

SUB AREA A

PLANT NORTH

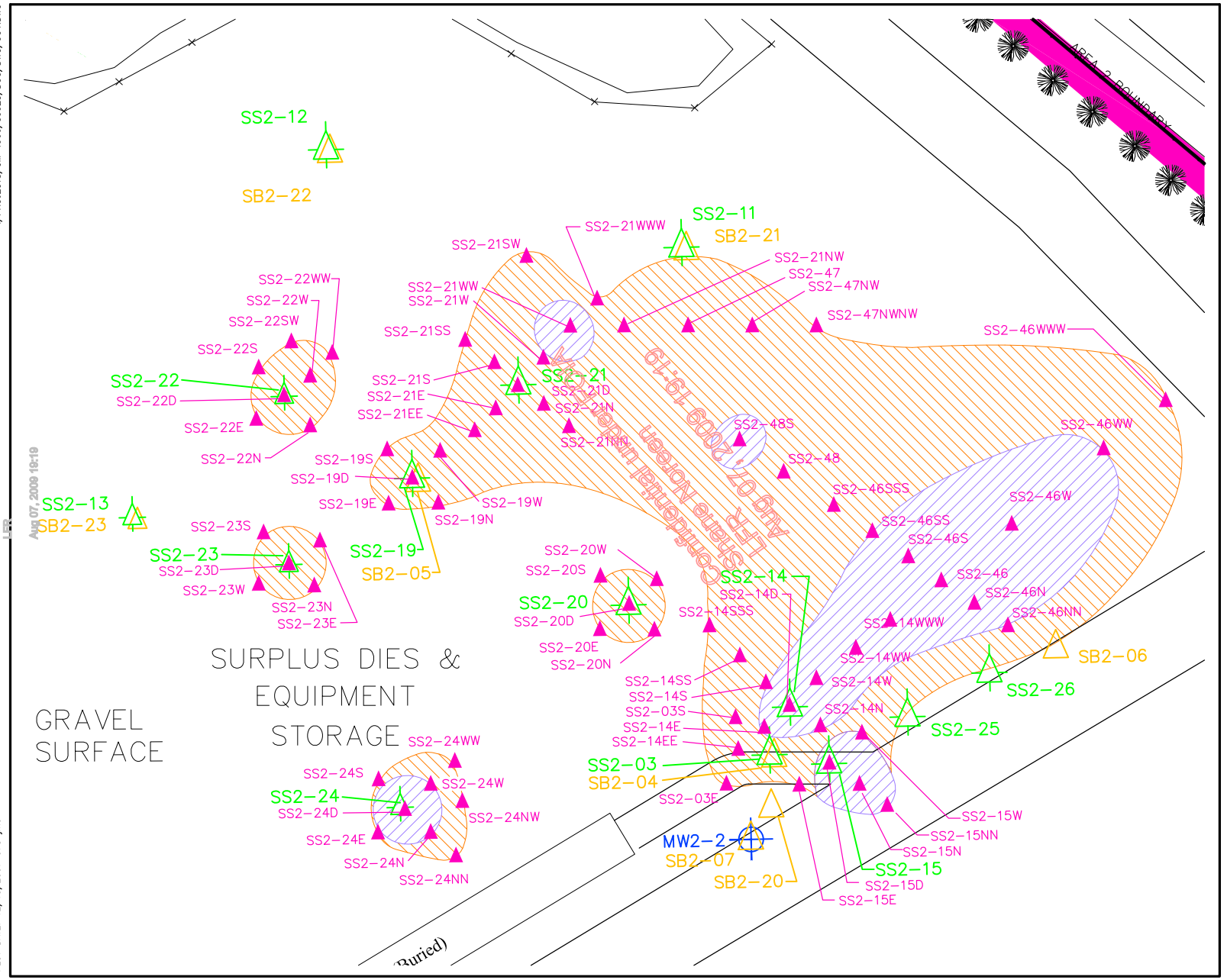
TRUE NORTH

4966/39923.001
DECEMBER 2007

40 0 40
1"=40'

O'BRIEN & GERE
ENGINEERS INC.

PLOT DATE 12/13/07 jmo



I:/PROJECTS/GM 4966/39923/DOC/DWG/001.DWG

PLOT DATE: 12/13/2007 078 jmo

FIGURE 8

PLANT NORTH

TRUE NORTH

LEGEND

- SURFACE SOIL LOCATION
- SOIL BORING LOCATION
- SURFACE SOIL DELINEATION LOCATION
- AREA EXCEEDING RESIDENTIAL CRITERIA
- AREA EXCEEDING INDUSTRIAL CRITERIA

GENERAL MOTORS
MFD – GRAND BLANC
(ENCORE SITE #29)
GRAND BLANC, MICHIGAN

SUB AREA B

60 0 60
1"=60'

4966/39923.001
DECEMBER 2007

O'BRIEN & GERE
ENGINEERS INC.

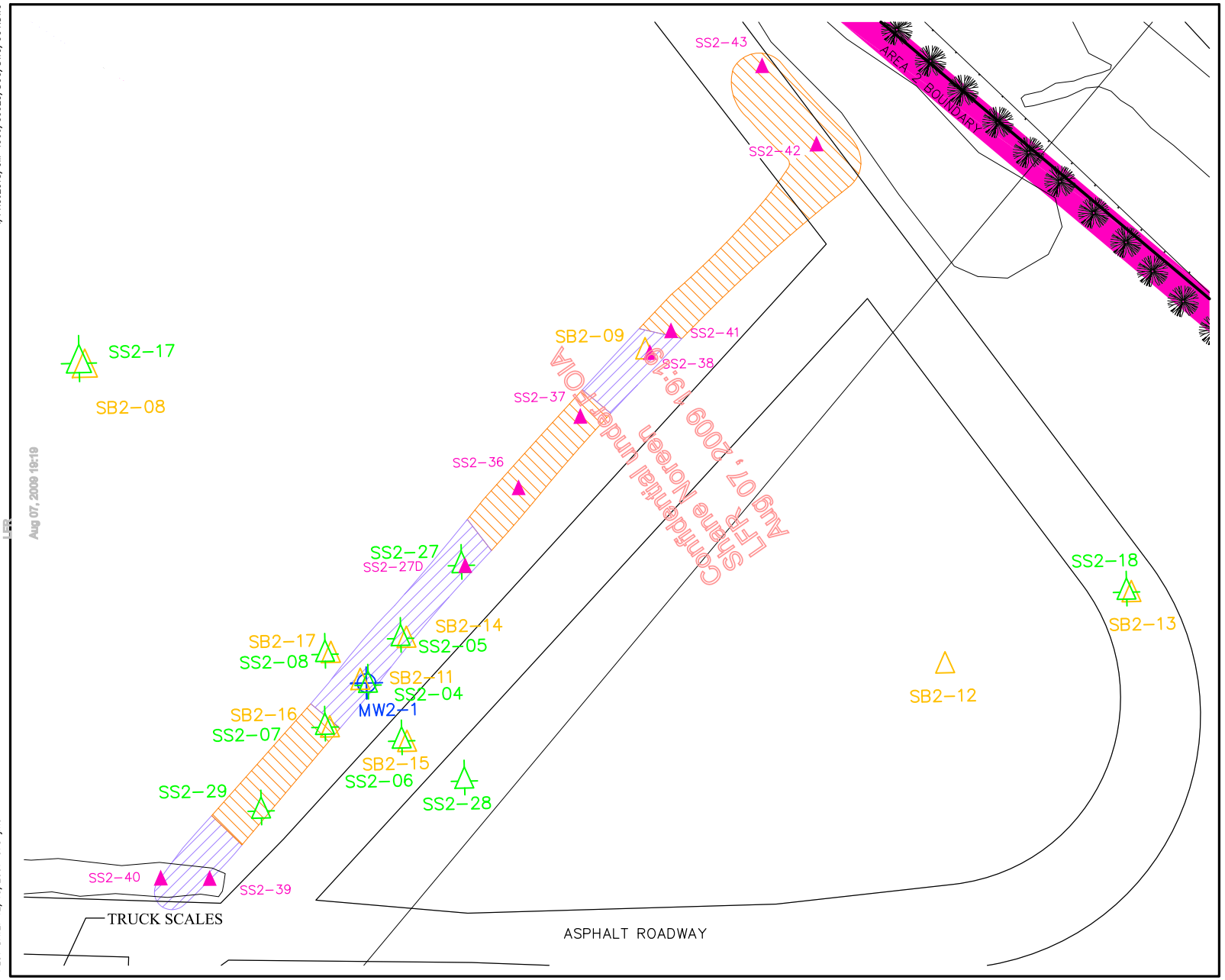


FIGURE 9

PLANT NORTH

TRUE NORTH

LEGEND

- SURFACE SOIL LOCATION
- SOIL BORING LOCATION
- SURFACE SOIL DELINEATION LOCATION
- AREA EXCEEDING RESIDENTIAL CRITERIA
- AREA EXCEEDING INDUSTRIAL CRITERIA

GENERAL MOTORS
MFD – GRAND BLANC
(ENCORE SITE #29)
GRAND BLANC, MICHIGAN

SUB AREA C

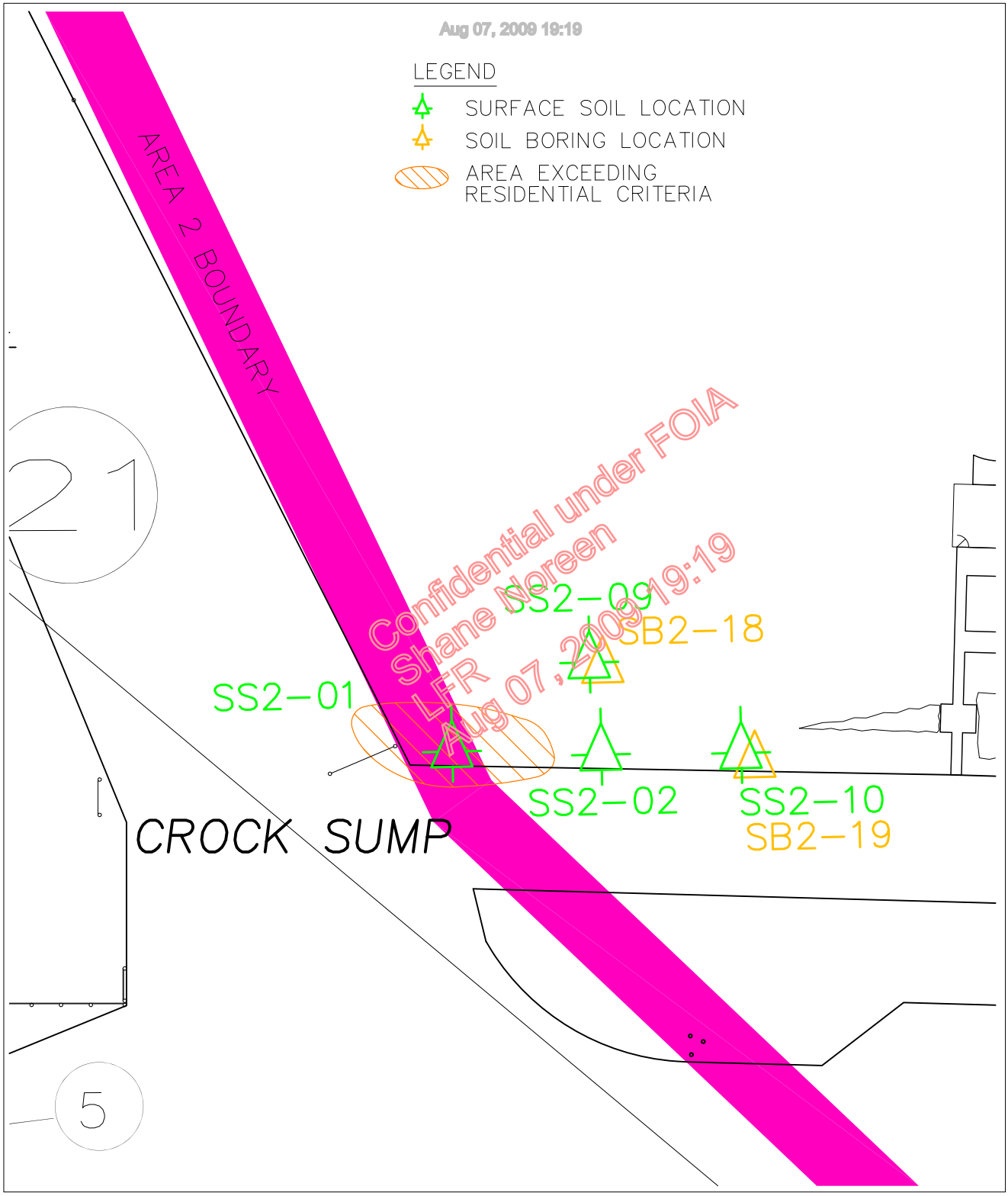
60 0 60
1"=60'

4966/39923.001
DECEMBER 2007

O'BRIEN & GERE
ENGINEERS INC.

PROJECTS\GM-4966\39923\DWG\001.DWG

FIGURE 10



GENERAL MOTORS
MFD – GRAND BLANC
GRAND BLANC, MICHIGAN

CROCK SUMP AREA

PLANT NORTH
TRUE NORTH

4966/39923.001
DECEMBER 2007

40 0 40
1"=40'

O'BRIEN & GERE ENGINEERS INC.

PLOT DATE 12/13/07 jmo

Appendix A

Soil Boring Logs

Confidential under FOIA

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LFR

Aug 07, 2009 19:19

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	top soil				
				dark brown, damp SAND, little gravel, little wood and roots (FILL)	3"			
1				medium brown, sandy CLAY, trace gravel	1'			
				pale brown, damp SAND and gravel	1.5'			
2							0.0	
3								
4							0.0	
				pale brown, moist fine SAND and silt	4.5'			
5		5-10	4 ft/ 5 ft					
6							0.0	
7				same as above, coarse sand	7'			
				pale brown, moist CLAY, orange and gray mottling	7.5'			
8							0.0	8'
9								
10				End of Boring at 10 fbg	10'			
11								
12								
13								
14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3.5 ft/ 5 ft	dark brown, dry SAND				0-6" soil
				dark orangish gray, dry CLAY, trace gravel	6"			
1								
2							0.0	
3				pale brown, damp SAND, trace gravel (FILL)	3'			
				same as above, clay	3.5'			
4				pale brown, damp SAND	4'		0.0	
				pale brown, damp CLAY				
5				End of Boring at 5 fbg	5'			
6								
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8								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bento[illegible] and monitored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3.5 ft/ 5 ft	gravel				0-6" soil
				dark brown, damp SAND and clay, little gravel and glass (FILL)	6"			
1								
2							0.0	
				pale brown, damp CLAY, little gravel	2.5'			
3								
				wood (FILL)	3.5'			
4				dark brown, damp silty CLAY, little sand, trace gravel	4.2'		0.0	
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bento[illegible] ur[illegible]tored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3.5 ft/ 5 ft	pale brown, dry SAND and gravel				0-6" soil
				dark brown, damp sandy CLAY, trace gravel	8"			
1								
2							0.0	
3								
				medium brown, damp SAND, trace gravel	3.8'			
4							0.0	
				dark brown, damp sandy CLAY, trace gravel	4.5'			
5				End of Boring at 5 fbg	5'			
6								
7								
8								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bento[illegible] tamped.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3.5 ft/ 5 ft	gravel				0-6" soil
				brown, damp SAND, little silt	6"			
1								
2				gravel (FILL)	2'		0.0	
3				brown, damp coarse SAND, trace clay	3'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
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8								
9								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 NN
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 8/9/07 End Date: 8/9/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	light grayish brown, dry SAND and gravel				0-6" soil
1				light brown, damp SAND	1'			
2				light olive gray, clayey SILT, little gravel (FILL)	2'		0.0	
3								
4							0.0	
5				End of Boring at 5 fbg	5'			
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-14 SS
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 8/9/07 End Date: 8/9/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3.5 ft/ 5 ft	dark gray, dry SAND and gravel				0-6" soil
1				light brown, damp clayey SILT, little sand, trace gravel	1'			
2							0.0	
3								
4				light brown olive, damp CLAY, medium soft, gray mottling	4'		0.0	
				gravel (FILL)	4.5'			
5				End of Boring at 5 fbg	5'			
6								
7								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING
	Confidential under FOIA	SS2-14 EE

Client: ENCORE
Site: MFD Plant

Proj. Loc: Grand Blanc, MI
File No.: 4966/39923

Drill Method: hydraulic probe
Sampler: 5 ft stainless steel w/ disposable acetate liner

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Page 1 of 1
Location: Area 2

Start Date: 8/9/07
End Date: 8/9/07

Boring Company: Boart Longyear
Foreman: Larry Weiss
Drill Rig: Geoprobe 6600 track rig
OBG Geologist: Kevin Schneider

Screen ===
Riser
Sand Pack
Bentonite
Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3.5 ft/ 5 ft	brown, wet SAND, some gravel				0-6" soil
				light brown, SAND and gravel, little silt (FILL)	4"			
1								
2							0.0	
3								
				light brown, SAND, little clay, trace gravel	3.5'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite, and the surface was restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

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O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING
		SS2-14 WW

Client: ENCORE
Site: MFD Plant

Proj. Loc: Grand Blanc, MI
File No.: 4966/39923

Drill Method: hydraulic probe
Sampler: 5 ft stainless steel w/ disposable acetate liner

Page 1 of 1
Location: Area 2

Start Date: 8/9/07
End Date: 8/9/07

Boring Company: Boart Longyear
Foreman: Larry Weiss
Drill Rig: Geoprobe 6600 track rig
OBG Geologist: Kevin Schneider

Screen ===
Riser
Sand Pack
Bentonite
Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	dark brown, damp silty SAND				0-6" soil
				light brown, silty SAND	5"			
1				gravel (FILL)	1.2'			
				light brown, damp clayey SAND, some gravel (FILL)	1.7'			
2							0.0	
3								
				same as above	3.5'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite, and the surface was restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-15 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	dark brown, damp SAND				
				brown, damp, coarse SAND and GRAVEL (FILL)	4"			
1								
2							0.0	
3								
4							0.0	
				brown, damp, coarse SAND, some gravel	4.5'			
5		5-10	4 ft/ 5 ft					
6				brown, damp CLAY, gray mottling	6'		0.0	
7								7'
8							0.0	
9								
10				End of Boring at 10 bg	10'			
11								
12								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

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Shane Noreen

LFR

Aug 07, 2009 19:19

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-15 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	asphalt				0-6" soil
				dark yellowish orange, damp SAND and GRAVEL (FILL)	3"			
1				brown, damp SAND and GRAVEL	1'			
2							0.0	
3								
4				large gravel, trace sand	4'		0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
10								
11								
12								
13								
14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-15 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	gravel, some brown, damp, sand				0-6" soil
				brown, damp coarse SAND and GRAVEL (FILL)	3"			
1								
2							0.0	
				brown, damp coarse SAND, some GRAVEL	2.5'			
3								
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
10								
11								
12								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-15 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	dark brown, dry, SAND, some gravel, little roots				0-6" soil
				dark yellowish orange, damp SAND and gravel	6"			
1								
2							0.0	
				gravel (FILL)	2.8'			
3				dark yellowish orange, damp SAND	3.2'			
				gravel (FILL)	3.6'			
4				dark yellowish orange, dry SAND, little gravel	4'		0.0	
				dark yellowish orange, damp sandy CLAY, orange and gray mottling				
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING
	Confidential under FOIA	SS2-15 NN

Client: ENCORE
Site: MFD Plant

Proj. Loc: Grand Blanc, MI
File No.: 4966/39923

Drill Method: hydraulic probe
Sampler: 5 ft stainless steel w/ disposable acetate liner

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Aug 07, 2009 19:19

Page 1 of 1
Location: Area 2

Start Date: 8/9/07
End Date: 8/9/07

Boring Company: Boart Longyear
Foreman: Larry Weiss
Drill Rig: Geoprobe 6600 track rig
OBG Geologist: Kevin Schneider

Screen ===
Riser
Sand Pack
Bentonite
Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	asphalt				0-6" soil
				light brown, damp SAND and gravel, some coarse gravel (FILL)	6"			
1								
2							0.0	
				same as above	2.5'			
3								
4							0.0	
				olive brown, damp, CLAY	4.5'			
5				End of Boring at 5 fbg	5'			
6								
7								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite, and the surface was restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

Confidential under FOIA
Shane Noreen
LFR
Aug 07, 2009 19:19

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-19 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	top soil				
				grayish orange, damp sandy CLAY (FILL)	6"			
1								
2							0.0	
3								3'
				brown, damp CLAY, orange and gray mottling	3.6'			
4							0.0	
5		5-10	4 ft/ 5 ft					
6							0.0	
7				same as above, less orange and gray mottling	7'			
8							0.0	
9								
10				End of Boring at 10 ftbg	10'			
11								
12								
13								
14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-19 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	top soil				0-6" soil
				brown, dry sandy CLAY	6"			
1								
2							0.0	
3								
4				same as above, more sand and gravel	4'		0.0	
5				End of Boring at 5 fbg				
6								
7								
8								
9								
10								
11								
12								
13								
14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-19 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	top soil				0-6" soil
				brown, dry SAND, little clay and gravel	6"			
1								
				brown, damp SAND, AND GRAVEL (FILL)	1.5'			
2							0.0	
3				brown, damp sandy CLAY, trace gravel	3'			
4							0.0	
				same as above more clay	4.5'			
5				End of Boring at 5 fbg				
6								
7								
8								
9								
10								
11								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-19 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	top soil				0-6" soil
				brown, dry sandy CLAY, trace gravel	6"			
1								
2							0.0	
3				same as above, stiff	3'			
4							0.0	
5				End of Boring at 5 fbg				
6								
7								
8								
9								
10								
11								
12								
13								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-19 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	top soil				0-6" soil
				grayish orange, damp sandy CLAY (FILL)	6"			
1								
2							0.0	
3								
				brown, damp CLAY, orange and gray mottling	3.6'			
4							0.0	
				same as above, more gravel	4.5'			
5				End of Boring at 5 fbg				
6								
7								
8								
9								
10								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-20 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	3 ft/ 5 ft	gravel				
				brown, damp SAND and gravel, little clay	7"			
1				brown, damp silty CLAY	8"			
				concrete and gravel (FILL)	1'			
2				brown, damp CLAY, little sand, trace gravel	2'		0.0	
3								
4							0.0	
				gravel (FILL)	4.5'			
5		5-10	4 ft/ 5 ft	brown, damp coarse SAND, trace gravel (FILL)	4.7'			
6							0.0	
				pale brown, damp fine SAND, little gravel (FILL)	6'			
7								
8				brown, damp CLAY, orange and gray mottling	8'		0.0	8'
9								
10				End of Boring at 10 ftbg	10'			
11								
12								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-20 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	gravel				0-6" soil
				brown, damp CLAY, some silt, little gravel	6"			
1								
2							0.0	
3								
4				dark yellowish orange, damp SAND, trace gravel	4'		0.0	
				pale brown, damp CLAY, trace gravel	4.5'			
5				End of Boring at 5 fbg				
6								
7								
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9								
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12								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-20 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	dark yellowish orange, dry SAND and gravel (FILL)				0-6" soil
1				dark yellowish orange, damp CLAY, little silt, trace gravel	1'			
2							0.0	
3				same as above	3'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
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11								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-20 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	pale brown, dry SAND and gravel				0-6" soil
				pale brown, damp CLAY	8"			
1								
				gravel (FILL)	1.5'			
2				pale brown, damp sand and CLAY	2'		0.0	
3								
4				gravel (FILL)	4		0.0	
				pale brown, damp CLAY	4.5'			
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
10								
11								
12								
13								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-20 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	asphalt, pale brown, dry gravel, SAND (FILL)				0-6" soil
				pale brown, damp SAND and clay	6"			
1								
2							0.0	
				gravel (FILL)	2.5'			
3				dark yellowish orange, damp CLAY, little silt, trace gravel	3'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
8								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-21 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				
				medium dark gray, damp SAND and gravel	5"			
1				orangish brown, CLAY, little silt	8"			
2							0.0	
3								
4				SAA,orange mottling, trace roots	4.5'		0.0	
				gravel (FILL)	4.6'			
5				orangish brown, damp CLAY	4.8'			4.8'
				End of Boring at 5 fbg	5'			
6								
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8								
9								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-21 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				light brown, dry SAND and GRAVEL (FILL)	5"			
1				light brown, dry CLAY, trace gravel	1'			
2							0.0	
3				same as above	3'			
4							0.0	
5								
6				End of Boring at 5 fbg	5'			
7								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-21 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	4 ft/ 5 ft	top soil				0-6" soil
				light brown, dry sandy CLAY, trace gravel	6"			
1								
2				light brown, dry CLAY, orange and gray mottling, trace gravel	2'		0.0	
3								
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-21 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				brown, dry SAND, AND GRAVEL (FILL)	5"			
1				light brown, dry CLAY, trace gravel	1'			
2							0.0	
3								
4							0.0	
5								
				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-21 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	medium dark gray, top soil				0-6" soil
				light brown orangish, dry CLAY, little sand, trace gravel	5"			
1								
2							0.0	
3								
4							0.0	
				brown, damp, CLAY	4.8'			
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-22 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				
				light brown, damp sandy CLAY, trace gravel	6"			
1				gravel (FILL)	1'			
				brown, damp CLAY, little orange and gray mottling	1.5'			1.2'
2							0.0	
3								
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-22 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				light brown, damp sandy CLAY, trace gravel	6"			
1								
2							0.0	
3								
4							0.0	
				brown, damp CLAY, gray and orange mottling	4.5'			
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
10								
11								
12								
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14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-22 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				light brown, damp CLAY, some sand, little silt , trace gravel	6"			
1								
2							0.0	
3				brick (FILL)	3'			
				brown, damp CLAY, gray mottling	3.3'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and hydrated.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-22 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/20/07 End Date: 7/20/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				brown, dry CLAY, trace gravel, gray and orange mottling	6"			
1				light brown, dry SAND and gravel (FILL)	1'			
				black coal (FILL)	1.2'			
2				brownish gray, damp CLAY	1.5'		0.0	
3								
				gravel (FILL)	3.5'			
4				light brown, damp CLAY, little gravel	3.9'		0.0	
5				End of Boring at 5 fbg	5'			
6								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SB2-23 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				
				brown, damp CLAY, orange and gray mottling, trace gravel	4"			
1								
2							0.0	
								2.5'
3								
4				wood (FILL)	4.2'		0.0	
				brown, damp CLAY, orange and gray mottling	4.4'			
5		5-10'	4.5ft/ 5ft	brown, damp SAND, little gravel	4.6'			
				brown, damp CLAY, orange and gray mottling	4.8'			
6								
7								
8								
9								
10				End of Boring at 10 fbg	10'			
11								
12								
13								
14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SB2-23 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				brown, dry sandy CLAY, trace gravel	4"			
1								
2							0.0	
3								
				brown, damp CLAY, orange and gray mottling	3.7'			
4							0.0	
					4.4'			
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
10								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SB2-23 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				brown, damp silty CLAY, trace gravel	6"			
1								
2							0.0	
3				brown, moist CLAY, trace gravel	3'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
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9								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SB2-23 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
				grayish orange, silty SAND, little clay, trace gravel	8"			
1								
2							0.0	
3								
4							0.0	
				same as above, more clay	4.4'			
5				End of Boring at 5 fbg	5'			
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7								
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13								
14								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SB2-23 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				0-6" soil
1				dark gray, damp SAND	1'			
				brown, damp, CLAY, orange and gray mottling, trace gravel	1.4'			
2							0.0	
3								
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	gravel				
				grayish orange, damp SAND and gravel, slight odor	6"			
1								
2				dark yellowish orange, damp sandy CLAY, some gravel	2'		0.0	
3								
				dark gray, damp CLAY some coal (FILL)	3.5'			
4							0.0	
5		5-10'	4 ft/ 5ft	gravel (FILL)	5'			
				dark loam, trace roots	5.5'			
6				brown, damp CLAY, orange and gray mottling	5.8'			
7								
8				same as above	8'			
								8.5'
9								
10				End of Boring at 10 ftbg	10'			
11								
12								
13								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and then asphalt restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 N
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	pale brown, damp SAND and GRAVEL (FILL)				0-6" soil
1				pale brown, damp CLAY, little gravel (FILL)	1'			
2							0.0	
3								
				same as above	3.5'			
4							0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
8								
9								
10								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 S
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	pale brown, damp SAND and GRAVEL (FILL)				0-6" soil
1				dark yellowish orange, damp sandy CLAY, little gravel	1'			
2							0.0	
3				gravel (FILL)	3'			
				wood (FILL)	3.2'			
4				pale olive, damp CLAY, trace gravel, gray mottling	3.4'		0.0	
5				End of Boring at 5 fbg	5'			
6								
7								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 E
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	pale brown, damp SAND and GRAVEL (FILL)				0-6" soil
1				pale brown, damp CLAY, trace gravel	1'			
2							0.0	
3								
4				same as above, less gravel	4'		0.0	
5				End of Boring at 5 fbg	5'			
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 W
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	pale brown, damp SAND and GRAVEL (FILL)				0-6" soil
1				pale brown, damp CLAY, little gravel (FILL)	1'			
2							0.0	
3								
4							0.0	
				gravel	4.5'			
5				End of Boring at 5 fbg	5'			
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 WW
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 8/9/07 End Date: 8/9/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	brown, wet SAND, little gravel				0-6" soil
				light brown, damp SAND, some gravel, little clay	4"			
1								
2							0.0	
3				pale olive brown, damp, silty CLAY, trace gravel	3'			
4							0.0	
5				End of Boring at 5 fbg	5'			
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and hydrated.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SS2-24 NW
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 8/9/07 End Date: 8/9/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	light brown, dry SAND and GRAVEL, some coarse gravel (FILL)				0-6" soil
1				light olive brown, silty SAND, little clay, little gravel (FILL)	1'			
2							0.0	
3				gravel (FILL)	3'			
				pale olive, damp silty CLAY, trace gravel (FILL)	3.4'			
4							0.0	
5				End of Boring at 5 fbg	5'			
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING SB2-27 D
Client: ENCORE Site: MFD Plant Proj. Loc: Grand Blanc, MI File No.: 4966/39923	Drill Method: hydraulic probe Sampler: 5 ft stainless steel w/ disposable acetate liner	Page 1 of 1 Location: Area 2 Start Date: 7/24/07 End Date: 7/24/07
Boring Company: Boart Longyear Foreman: Larry Weiss Drill Rig: Geoprobe 6600 track rig OBG Geologist: Kevin Schneider		Screen Riser Sand Pack Bentonite Bent/grout

Depth Below Grade	No.	Depth (feet)	Penetr/ Recovery	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Lab samples
0	1	0-5'	5 ft/ 5 ft	top soil				
				brown, damp clayey SAND, (FILL)	4"			
1								
				brown, damp CLAY, orange and gray mottling	1.5'			
2							0.0	
								2.5'
3								
4							0.0	
5		5-10'	5 ft/5 ft					
6				SAA, less orange and gray mottling	6'		0.0	
7								
8							0.0	
9								
10				End of Boring at 10 ftbg	10'			
11								
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Notes:

1. Subsequent to soil sampling activities the borehole was backfilled with bentonite and the surface restored.
2. 5 ft hydraulic probe macro core sampler used, therefore no blow counts.

Appendix B

Soil Analytical Results

Confidential under FOIA

Shane Noreen

LFR

Aug 07, 2009 19:19

Analytical Laboratory Report

Report ID: S32878.01(01)
Generated on 07/31/2007

Report to

Attention: Mr. Clifford Yantz
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S32878.01-S32878.35, S32896.01-S32896.21, S32940.01-S32940.34
Project: GM MFD Grand Blanc
Collected Date: 07/19/2007 - 07/24/2007
Submitted Date/Time: 07/20/2007 12:45
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak
Laboratory Director

Merit Laboratories, Inc.

Analytical Laboratory Report

Sample Summary (90 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S32878.01	SB5-12-0.5	Soil	07/19/2007 09:00
S32878.02	SB5-12-3.2	Soil	07/19/2007 09:05
S32878.03	SB5-13-0.5	Soil	07/19/2007 09:40
S32878.04	SB5-13-8.5	Soil	07/19/2007 09:45
S32878.05	SB5-14-0.5	Soil	07/19/2007 10:05
S32878.06	SB5-14-3.5	Soil	07/19/2007 10:10
S32878.07	SB5-15-0.5	Soil	07/19/2007 10:25
S32878.08	SB5-15-6	Soil	07/19/2007 10:35
S32878.09	SB5-16-0.5	Soil	07/19/2007 11:30
S32878.10	SB5-16-4.3	Soil	07/19/2007 11:35
S32878.11	SB3-14-0.5	Soil	07/19/2007 11:55
S32878.12	SB3-14-5	Soil	07/19/2007 12:00
S32878.13	SB5-17-0.5	Soil	07/19/2007 14:05
S32878.14	SB5-17-4.5	Soil	07/19/2007 14:10
S32878.15	SB5-18-0.5	Soil	07/19/2007 14:40
S32878.16	SB5-18-4.5	Soil	07/19/2007 14:45
S32878.17	SB5-19-0.5	Soil	07/19/2007 15:00
S32878.18	SB5-19-4.5	Soil	07/19/2007 15:05
S32878.19	SB5-20-0.5	Soil	07/19/2007 15:20
S32878.20	SB5-20-5	Soil	07/19/2007 15:25
S32878.21	SB5-21-0.5	Soil	07/19/2007 15:35
S32878.22	SB5-21-5	Soil	07/19/2007 15:40
S32878.23	SB5-22-0.5	Soil	07/19/2007 15:55
S32878.24	SB5-22-4.5	Soil	07/19/2007 16:00
S32878.25	SB5-23-0.5	Soil	07/19/2007 16:20
S32878.26	SB5-23-5	Soil	07/19/2007 16:25
S32878.27	SB3-15-0.5	Soil	07/19/2007 12:10
S32878.28	SB3-15-5	Soil	07/19/2007 12:15
S32878.29	SS4-15	Soil	07/20/2007 08:20
S32878.30	SS4-16	Soil	07/20/2007 08:30
S32878.31	SS4-17	Soil	07/20/2007 09:05
S32878.32	SS4-18	Soil	07/20/2007 09:50
S32878.33	SS4-19	Soil	07/20/2007 10:00
S32878.34	SB3-16-0.5	Soil	07/20/2007 11:05
S32878.35	SB3-16-4	Soil	07/20/2007 11:10
S32896.01	SB3-17-0.5	Soil	07/20/2007 11:25
S32896.02	Dup-01	Soil	07/20/2007
S32896.03	SB3-17-4	Soil	07/20/2007 11:30
S32896.04	Dup-02	Soil	07/20/2007
S32896.05	SS2-22N	Soil	07/20/2007 13:55
S32896.06	SS2-22W	Soil	07/20/2007 14:05
S32896.07	SS2-22D-1.2	Soil	07/20/2007 14:10
S32896.08	SS2-22E	Soil	07/20/2007 14:15
S32896.09	SS2-22S	Soil	07/20/2007 14:30
S32896.10	SS2-21W	Soil	07/20/2007 14:55
S32896.11	SS2-21D-4.8	Soil	07/20/2007 15:15
S32896.12	SS2-21S	Soil	07/20/2007 15:30
S32896.13	SS2-21N	Soil	07/20/2007 15:40
S32896.14	SS2-21E	Soil	07/20/2007 15:50
S32896.15	Dup-03	Soil	07/20/2007
S32896.16	SS2-40	Soil	07/20/2007 16:05
S32896.17	SS2-39	Soil	07/20/2007 16:15
S32896.18	SS2-36	Soil	07/20/2007 16:30
S32896.19	SS2-37	Soil	07/20/2007 16:40

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Sample Summary (continued)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S32896.20	Dup-04	Soil	07/20/2007
S32896.21	SS2-38	Soil	07/20/2007 16:50
S32940.01	SS2-20D-8	Soil	07/24/2007 08:55
S32940.02	SS2-20N	Soil	07/24/2007 09:05
S32940.03	SS2-20W	Soil	07/24/2007 09:15
S32940.04	SS2-20S	Soil	07/24/2007 09:20
S32940.05	SS2-20E	Soil	07/24/2007 09:25
S32940.06	SS2-14-D-8	Soil	07/24/2007 09:45
S32940.07	SS2-14N	Soil	07/24/2007 09:55
S32940.08	Dup-05	Soil	07/24/2007
S32940.09	SS2-14E	Soil	07/24/2007 10:05
S32940.10	SS2-14S	Soil	07/24/2007 10:20
S32940.11	SS2-14W	Soil	07/24/2007 10:25
S32940.12	SS2-15D-7	Soil	07/24/2007 10:45
S32940.13	SS2-15W	Soil	07/24/2007 10:55
S32940.14	SS2-15N	Soil	07/24/2007 11:05
S32940.15	SS2-15E	Soil	07/24/2007 11:10
S32940.16	SS2-24D-8.5	Soil	07/24/2007 11:30
S32940.17	SS2-24S	Soil	07/24/2007 11:40
S32940.18	Dup-06	Soil	07/24/2007
S32940.19	SS2-24E	Soil	07/24/2007 11:55
S32940.20	SS2-24W	Soil	07/24/2007 12:00
S32940.21	SS2-24N	Soil	07/24/2007 12:05
S32940.22	SS2-19D-3	Soil	07/24/2007 13:15
S32940.23	SS2-19W	Soil	07/24/2007 13:25
S32940.24	SS2-19S	Soil	07/24/2007 13:35
S32940.25	SS2-19E	Soil	07/24/2007 13:45
S32940.26	SS2-19N	Soil	07/24/2007 13:50
S32940.27	SS2-23D-2.5	Soil	07/24/2007 14:35
S32940.28	SS2-23W	Soil	07/24/2007 14:45
S32940.29	SS2-23S	Soil	07/24/2007 14:58
S32940.30	SS2-23E	Soil	07/24/2007 14:55
S32940.31	SS2-23N	Soil	07/24/2007 15:05
S32940.32	Dup-07	Soil	07/24/2007
S32940.33	SS2-27D-2.5	Soil	07/24/2007 15:15
S32940.34	SS4-07D-2	Soil	07/24/2007 15:50

Analytical Laboratory Report

Lab Sample ID: S32896.05
Sample Tag: SS2-22N
Collected Date/Time: 07/20/2007 13:55
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
Inorganics								
Total Solids	92	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	7.33	mg/kg	0.10	6020	07/31/07 10:40	PER	7440-38-2	

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Lab Sample ID: S32896.06
Sample Tag: SS2-22W
Collected Date/Time: 07/20/2007 14:05
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
Inorganics								
Total Solids	80	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	18.0	mg/kg	0.10	6020	07/31/07 10:43	PER	7440-38-2	

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Lab Sample ID: S32896.07
Sample Tag: SS2-22D-1.2
Collected Date/Time: 07/20/2007 14:10
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
Inorganics								
Total Solids	93	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	1.08	mg/kg	0.10	6020	07/31/07 10:44	PER	7440-38-2	

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Lab Sample ID: S32896.08
Sample Tag: SS2-22E
Collected Date/Time: 07/20/2007 14:15
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
Inorganics								
Total Solids	86	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	4.81	mg/kg	0.10	6020	07/31/07 10:45	PER	7440-38-2	

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Lab Sample ID: S32896.09
Sample Tag: SS2-22S
Collected Date/Time: 07/20/2007 14:30
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
Inorganics								
Total Solids	89	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	4.69	mg/kg	0.10	6020	07/31/07 10:46	PER	7440-38-2	

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Lab Sample ID: S32896.10
Sample Tag: SS2-21W
Collected Date/Time: 07/20/2007 14:55
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	89	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	12.7	mg/kg	0.10	6020	07/31/07 10:48	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	193-39-5	
Naphthalene	3,500	ug/kg	300	8270C	07/27/07 13:44	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/27/07 13:44	ARH	129-00-0	
2-Methylnaphthalene	6,200	ug/kg	300	8270C	07/27/07 13:44	ARH	91-57-6	
1-Methylnaphthalene	2,400	ug/kg	300	8270C	07/27/07 13:44	ARH		

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Lab Sample ID: S32896.11
Sample Tag: SS2-21D-4.8
Collected Date/Time: 07/20/2007 15:15
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	89	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	0.95	mg/kg	0.10	6020	07/31/07 10:49	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:07	ARH		

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Lab Sample ID: S32896.12
Sample Tag: SS2-21S
Collected Date/Time: 07/20/2007 15:30
Matrix: Soil
COC Reference: 041702

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	89	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	11.4	mg/kg	0.10	6020	07/31/07 10:50	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH	208-96-8	
Anthracene	400	ug/kg	300	8270C	07/27/07 14:29	ARH	120-12-7	
Benzo(a)anthracene	2,900	ug/kg	300	8270C	07/27/07 14:29	ARH	56-55-3	
Benzo(a)pyrene	4,400	ug/kg	300	8270C	07/27/07 14:29	ARH	50-32-8	
Benzo(b)fluoranthene	4,100	ug/kg	300	8270C	07/27/07 14:29	ARH	205-99-2	
Benzo(k)fluoranthene	3,800	ug/kg	300	8270C	07/27/07 14:29	ARH	207-08-9	
Benzo(ghi)perylene	3,800	ug/kg	300	8270C	07/27/07 14:29	ARH	191-24-2	
Chrysene	3,300	ug/kg	300	8270C	07/27/07 14:29	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH	53-70-3	
Fluoranthene	3,600	ug/kg	300	8270C	07/27/07 14:29	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	3,600	ug/kg	300	8270C	07/27/07 14:29	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH	91-20-3	
Phenanthrene	1,800	ug/kg	300	8270C	07/27/07 14:29	ARH	85-01-8	
Pyrene	4,200	ug/kg	300	8270C	07/27/07 14:29	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:29	ARH		

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Lab Sample ID: S32896.13
Sample Tag: SS2-21N
Collected Date/Time: 07/20/2007 15:40
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	92	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	5.45	mg/kg	0.10	6020	07/31/07 10:51	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH	208-96-8	
Anthracene	500	ug/kg	300	8270C	07/27/07 14:52	ARH	120-12-7	
Benzo(a)anthracene	2,100	ug/kg	300	8270C	07/27/07 14:52	ARH	56-55-3	
Benzo(a)pyrene	2,500	ug/kg	300	8270C	07/27/07 14:52	ARH	50-32-8	
Benzo(b)fluoranthene	2,500	ug/kg	300	8270C	07/27/07 14:52	ARH	205-99-2	
Benzo(k)fluoranthene	2,200	ug/kg	300	8270C	07/27/07 14:52	ARH	207-08-9	
Benzo(ghi)perylene	2,100	ug/kg	300	8270C	07/27/07 14:52	ARH	191-24-2	
Chrysene	2,500	ug/kg	300	8270C	07/27/07 14:52	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH	53-70-3	
Fluoranthene	4,300	ug/kg	300	8270C	07/27/07 14:52	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	2,000	ug/kg	300	8270C	07/27/07 14:52	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH	91-20-3	
Phenanthrene	2,400	ug/kg	300	8270C	07/27/07 14:52	ARH	85-01-8	
Pyrene	4,500	ug/kg	300	8270C	07/27/07 14:52	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 14:52	ARH		

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Lab Sample ID: S32896.14
Sample Tag: SS2-21E
Collected Date/Time: 07/20/2007 15:50
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	92	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	3.26	mg/kg	0.10	6020	07/31/07 10:53	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	120-12-7	
Benzo(a)anthracene	1,700	ug/kg	300	8270C	07/27/07 15:15	ARH	56-55-3	
Benzo(a)pyrene	2,000	ug/kg	300	8270C	07/27/07 15:15	ARH	50-32-8	
Benzo(b)fluoranthene	2,000	ug/kg	300	8270C	07/27/07 15:15	ARH	205-99-2	
Benzo(k)fluoranthene	1,900	ug/kg	300	8270C	07/27/07 15:15	ARH	207-08-9	
Benzo(ghi)perylene	1,600	ug/kg	300	8270C	07/27/07 15:15	ARH	191-24-2	
Chrysene	1,800	ug/kg	300	8270C	07/27/07 15:15	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	53-70-3	
Fluoranthene	2,300	ug/kg	300	8270C	07/27/07 15:15	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,600	ug/kg	300	8270C	07/27/07 15:15	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	91-20-3	
Phenanthrene	900	ug/kg	300	8270C	07/27/07 15:15	ARH	85-01-8	
Pyrene	2,800	ug/kg	300	8270C	07/27/07 15:15	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 15:15	ARH		

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Analytical Laboratory Report

Lab Sample ID: S32896.15
Sample Tag: Dup-03
Collected Date/Time: 07/20/2007 :
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/31/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	90	%	1	160.3	07/23/07 13:20	WAR		
Metals								
Arsenic	14.1	mg/kg	0.10	6020	07/31/07 10:59	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH	208-96-8	
Anthracene	300	ug/kg	300	8270C	07/27/07 15:38	ARH	120-12-7	
Benzo(a)anthracene	1,300	ug/kg	300	8270C	07/27/07 15:38	ARH	56-55-3	
Benzo(a)pyrene	1,300	ug/kg	300	8270C	07/27/07 15:38	ARH	50-32-8	
Benzo(b)fluoranthene	1,200	ug/kg	300	8270C	07/27/07 15:38	ARH	205-99-2	
Benzo(k)fluoranthene	1,200	ug/kg	300	8270C	07/27/07 15:38	ARH	207-08-9	
Benzo(ghi)perylene	1,000	ug/kg	300	8270C	07/27/07 15:38	ARH	191-24-2	
Chrysene	1,400	ug/kg	300	8270C	07/27/07 15:38	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH	53-70-3	
Fluoranthene	2,100	ug/kg	300	8270C	07/27/07 15:38	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,000	ug/kg	300	8270C	07/27/07 15:38	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH	91-20-3	
Phenanthrene	1,300	ug/kg	300	8270C	07/27/07 15:38	ARH	85-01-8	
Pyrene	2,300	ug/kg	300	8270C	07/27/07 15:38	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 15:38	ARH		

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Analytical Laboratory Report

Lab Sample ID: S32896.16
Sample Tag: SS2-40
Collected Date/Time: 07/20/2007 16:05
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	88	%	1	160.3	07/23/07 13:20	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	56-55-3	
Benzo(a)pyrene	700	ug/kg	300	8270C	07/27/07 16:01	ARH	50-32-8	
Benzo(b)fluoranthene	700	ug/kg	300	8270C	07/27/07 16:01	ARH	205-99-2	
Benzo(k)fluoranthene	400	ug/kg	300	8270C	07/27/07 16:01	ARH	207-08-9	
Benzo(ghi)perylene	700	ug/kg	300	8270C	07/27/07 16:01	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	53-70-3	
Fluoranthene	900	ug/kg	300	8270C	07/27/07 16:01	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	600	ug/kg	300	8270C	07/27/07 16:01	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	91-20-3	
Phenanthrene	400	ug/kg	300	8270C	07/27/07 16:01	ARH	85-01-8	
Pyrene	1,000	ug/kg	300	8270C	07/27/07 16:01	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:01	ARH		

Analytical Laboratory Report

Lab Sample ID: S32896.17
Sample Tag: SS2-39
Collected Date/Time: 07/20/2007 16:15
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	82	%	1	160.3	07/23/07 13:20	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,100	ug/kg	300	8270C	07/27/07 19:26	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 19:26	ARH	208-96-8	
Anthracene	5,100	ug/kg	300	8270C	07/27/07 19:26	ARH	120-12-7	
Benzo(a)anthracene	12,800	ug/kg	300	8270C	07/27/07 19:26	ARH	56-55-3	
Benzo(a)pyrene	10,400	ug/kg	300	8270C	07/27/07 19:26	ARH	50-32-8	
Benzo(b)fluoranthene	9,600	ug/kg	300	8270C	07/27/07 19:26	ARH	205-99-2	
Benzo(k)fluoranthene	9,700	ug/kg	300	8270C	07/27/07 19:26	ARH	207-08-9	
Benzo(ghi)perylene	6,000	ug/kg	300	8270C	07/27/07 19:26	ARH	191-24-2	
Chrysene	12,900	ug/kg	300	8270C	07/27/07 19:26	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 19:26	ARH	53-70-3	
Fluoranthene	26,500	ug/kg	300	8270C	07/27/07 19:26	ARH	206-44-0	
Fluorene	1,900	ug/kg	300	8270C	07/27/07 19:26	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	6,200	ug/kg	300	8270C	07/27/07 19:26	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:26	ARH	91-20-3	
Phenanthrene	18,200	ug/kg	300	8270C	07/27/07 19:26	ARH	85-01-8	
Pyrene	28,000	ug/kg	300	8270C	07/27/07 19:26	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:26	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:26	ARH		

Analytical Laboratory Report

Lab Sample ID: S32896.18
Sample Tag: SS2-36
Collected Date/Time: 07/20/2007 16:30
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	78	%	1	160.3	07/23/07 13:20	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH	208-96-8	
Anthracene	800	ug/kg	300	8270C	07/27/07 16:24	ARH	120-12-7	
Benzo(a)anthracene	3,900	ug/kg	300	8270C	07/27/07 16:24	ARH	56-55-3	
Benzo(a)pyrene	3,600	ug/kg	300	8270C	07/27/07 16:24	ARH	50-32-8	
Benzo(b)fluoranthene	3,300	ug/kg	300	8270C	07/27/07 16:24	ARH	205-99-2	
Benzo(k)fluoranthene	3,300	ug/kg	300	8270C	07/27/07 16:24	ARH	207-08-9	
Benzo(ghi)perylene	2,200	ug/kg	300	8270C	07/27/07 16:24	ARH	191-24-2	
Chrysene	4,200	ug/kg	300	8270C	07/27/07 16:24	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH	53-70-3	
Fluoranthene	6,800	ug/kg	300	8270C	07/27/07 16:24	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	2,200	ug/kg	300	8270C	07/27/07 16:24	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH	91-20-3	
Phenanthrene	3,200	ug/kg	300	8270C	07/27/07 16:24	ARH	85-01-8	
Pyrene	8,100	ug/kg	300	8270C	07/27/07 16:24	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:24	ARH		

Analytical Laboratory Report

Lab Sample ID: S32896.19
Sample Tag: SS2-37
Collected Date/Time: 07/20/2007 16:40
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	85	%	1	160.3	07/23/07 13:20	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH	208-96-8	
Anthracene	400	ug/kg	300	8270C	07/27/07 16:46	ARH	120-12-7	
Benzo(a)anthracene	1,900	ug/kg	300	8270C	07/27/07 16:46	ARH	56-55-3	
Benzo(a)pyrene	1,800	ug/kg	300	8270C	07/27/07 16:46	ARH	50-32-8	
Benzo(b)fluoranthene	1,900	ug/kg	300	8270C	07/27/07 16:46	ARH	205-99-2	
Benzo(k)fluoranthene	1,300	ug/kg	300	8270C	07/27/07 16:46	ARH	207-08-9	
Benzo(ghi)perylene	1,100	ug/kg	300	8270C	07/27/07 16:46	ARH	191-24-2	
Chrysene	1,800	ug/kg	300	8270C	07/27/07 16:46	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH	53-70-3	
Fluoranthene	3,400	ug/kg	300	8270C	07/27/07 16:46	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,100	ug/kg	300	8270C	07/27/07 16:46	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH	91-20-3	
Phenanthrene	1,400	ug/kg	300	8270C	07/27/07 16:46	ARH	85-01-8	
Pyrene	3,700	ug/kg	300	8270C	07/27/07 16:46	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 16:46	ARH		

Analytical Laboratory Report

Lab Sample ID: S32896.20
Sample Tag: Dup-04
Collected Date/Time: 07/20/2007 :
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	87	%	1	160.3	07/23/07 13:20	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH	208-96-8	
Anthracene	300	ug/kg	300	8270C	07/27/07 17:09	ARH	120-12-7	
Benzo(a)anthracene	1,600	ug/kg	300	8270C	07/27/07 17:09	ARH	56-55-3	
Benzo(a)pyrene	1,500	ug/kg	300	8270C	07/27/07 17:09	ARH	50-32-8	
Benzo(b)fluoranthene	1,400	ug/kg	300	8270C	07/27/07 17:09	ARH	205-99-2	
Benzo(k)fluoranthene	1,300	ug/kg	300	8270C	07/27/07 17:09	ARH	207-08-9	
Benzo(ghi)perylene	900	ug/kg	300	8270C	07/27/07 17:09	ARH	191-24-2	
Chrysene	1,800	ug/kg	300	8270C	07/27/07 17:09	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH	53-70-3	
Fluoranthene	2,800	ug/kg	300	8270C	07/27/07 17:09	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,000	ug/kg	300	8270C	07/27/07 17:09	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH	91-20-3	
Phenanthrene	1,200	ug/kg	300	8270C	07/27/07 17:09	ARH	85-01-8	
Pyrene	3,200	ug/kg	300	8270C	07/27/07 17:09	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 17:09	ARH		

Analytical Laboratory Report

Lab Sample ID: S32896.21
Sample Tag: SS2-38
Collected Date/Time: 07/20/2007 16:50
Matrix: Soil
COC Reference: 041703

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	88	%	1	160.3	07/23/07 13:20	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	3,000	ug/kg	600	8270C	07/27/07 20:12	ARH	83-32-9	X
Acenaphthylene	Not detected	ug/kg	600	8270C	07/27/07 20:12	ARH	208-96-8	X
Anthracene	11,100	ug/kg	600	8270C	07/27/07 20:12	ARH	120-12-7	X
Benzo(a)anthracene	46,500	ug/kg	600	8270C	07/27/07 20:12	ARH	56-55-3	X
Benzo(a)pyrene	38,700	ug/kg	600	8270C	07/27/07 20:12	ARH	50-32-8	X
Benzo(b)fluoranthene	34,600	ug/kg	600	8270C	07/27/07 20:12	ARH	205-99-2	X
Benzo(k)fluoranthene	38,000	ug/kg	600	8270C	07/27/07 20:12	ARH	207-08-9	X
Benzo(ghi)perylene	22,400	ug/kg	600	8270C	07/27/07 20:12	ARH	191-24-2	X
Chrysene	45,000	ug/kg	600	8270C	07/27/07 20:12	ARH	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	600	8270C	07/27/07 20:12	ARH	53-70-3	X
Fluoranthene	78,400	ug/kg	600	8270C	07/27/07 20:12	ARH	206-44-0	X
Fluorene	3,400	ug/kg	600	8270C	07/27/07 20:12	ARH	86-73-7	X
Indeno(1,2,3-cd)pyrene	24,000	ug/kg	600	8270C	07/27/07 20:12	ARH	193-39-5	X
Naphthalene	Not detected	ug/kg	600	8270C	07/27/07 20:12	ARH	91-20-3	X
Phenanthrene	39,100	ug/kg	600	8270C	07/27/07 20:12	ARH	85-01-8	X
Pyrene	88,900	ug/kg	600	8270C	07/27/07 20:12	ARH	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	600	8270C	07/27/07 20:12	ARH	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	600	8270C	07/27/07 20:12	ARH		X

X-Elevated reporting limit due to matrix interference

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Analytical Laboratory Report

Lab Sample ID: S32940.01
Sample Tag: SS2-20D-8
Collected Date/Time: 07/24/2007 08:55
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	07/27/07 13:00	JRT		
Inorganics								
Total Solids	83	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Mercury	Not detected	mg/kg	0.050	7471A	07/30/07 15:00	JRT	7439-97-6	

Analytical Laboratory Report

Lab Sample ID: S32940.02
Sample Tag: SS2-20N
Collected Date/Time: 07/24/2007 09:05
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	07/27/07 13:00	JRT		
Inorganics								
Total Solids	95	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Mercury	2.761	mg/kg	0.050	7471A	07/30/07 15:11	JRT	7439-97-6	

Analytical Laboratory Report

Lab Sample ID: S32940.03
Sample Tag: SS2-20W
Collected Date/Time: 07/24/2007 09:15
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	07/27/07 13:00	JRT		
Inorganics								
Total Solids	94	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Mercury	2.242	mg/kg	0.050	7471A	07/30/07 15:13	JRT	7439-97-6	

Analytical Laboratory Report

Lab Sample ID: S32940.04
Sample Tag: SS2-20S
Collected Date/Time: 07/24/2007 09:20
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	07/27/07 13:00	JRT		
Inorganics								
Total Solids	98	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Mercury	5.976	mg/kg	0.050	7471A	07/30/07 15:14	JRT	7439-97-6	

Analytical Laboratory Report

Lab Sample ID: S32940.05
Sample Tag: SS2-20E
Collected Date/Time: 07/24/2007 09:25
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	07/27/07 13:00	JRT		
Inorganics								
Total Solids	95	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Mercury	2.736	mg/kg	0.050	7471A	07/30/07 15:18	JRT	7439-97-6	

Analytical Laboratory Report

Lab Sample ID: S32940.06
Sample Tag: SS2-14-D-8
Collected Date/Time: 07/24/2007 09:45
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	77	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	1.08	mg/kg	0.10	6020	07/30/07 16:28	SLS	7440-38-2	
Lead	9.2	mg/kg	1.0	6020	07/30/07 16:28	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 17:55	ARH		

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Lab Sample ID: S32940.07
Sample Tag: SS2-14N
Collected Date/Time: 07/24/2007 09:55
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/25/07 22:24	EMR		
Inorganics								
Total Solids	95	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	12.1	mg/kg	0.10	6020	07/30/07 16:16	SLS	7440-38-2	
Lead	154	mg/kg	1.0	6020	07/30/07 16:16	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	120-12-7	
Benzo(a)anthracene	700	ug/kg	300	8270C	07/27/07 19:49	ARH	56-55-3	
Benzo(a)pyrene	1,200	ug/kg	300	8270C	07/27/07 19:49	ARH	50-32-8	
Benzo(b)fluoranthene	700	ug/kg	300	8270C	07/27/07 19:49	ARH	205-99-2	
Benzo(k)fluoranthene	900	ug/kg	300	8270C	07/27/07 19:49	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	191-24-2	
Chrysene	900	ug/kg	300	8270C	07/27/07 19:49	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	53-70-3	
Fluoranthene	1,400	ug/kg	300	8270C	07/27/07 19:49	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	91-20-3	
Phenanthrene	700	ug/kg	300	8270C	07/27/07 19:49	ARH	85-01-8	
Pyrene	1,800	ug/kg	300	8270C	07/27/07 19:49	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:49	ARH		

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Analytical Laboratory Report

Lab Sample ID: S32940.08
Sample Tag: Dup-05
Collected Date/Time: 07/24/2007 :
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	96	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	11.0	mg/kg	0.10	6020	07/30/07 16:18	SLS	7440-38-2	
Lead	204	mg/kg	1.0	6020	07/30/07 16:18	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	120-12-7	
Benzo(a)anthracene	1,200	ug/kg	300	8270C	07/30/07 19:17	ARH	56-55-3	
Benzo(a)pyrene	1,600	ug/kg	300	8270C	07/30/07 19:17	ARH	50-32-8	
Benzo(b)fluoranthene	1,600	ug/kg	300	8270C	07/30/07 19:17	ARH	205-99-2	
Benzo(k)fluoranthene	1,300	ug/kg	300	8270C	07/30/07 19:17	ARH	207-08-9	
Benzo(ghi)perylene	1,500	ug/kg	300	8270C	07/30/07 19:17	ARH	191-24-2	
Chrysene	1,500	ug/kg	300	8270C	07/30/07 19:17	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	53-70-3	
Fluoranthene	2,200	ug/kg	300	8270C	07/30/07 19:17	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,400	ug/kg	300	8270C	07/30/07 19:17	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	91-20-3	
Phenanthrene	1,200	ug/kg	300	8270C	07/30/07 19:17	ARH	85-01-8	
Pyrene	2,900	ug/kg	300	8270C	07/30/07 19:17	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 19:17	ARH		

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Lab Sample ID: S32940.09
Sample Tag: SS2-14E
Collected Date/Time: 07/24/2007 10:05
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	97	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	8.53	mg/kg	0.10	6020	07/30/07 16:21	SLS	7440-38-2	
Lead	160	mg/kg	1.0	6020	07/30/07 16:21	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	500	ug/kg	300	8270C	07/30/07 19:39	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 19:39	ARH	208-96-8	
Anthracene	1,300	ug/kg	300	8270C	07/30/07 19:39	ARH	120-12-7	
Benzo(a)anthracene	4,600	ug/kg	300	8270C	07/30/07 19:39	ARH	56-55-3	
Benzo(a)pyrene	6,000	ug/kg	300	8270C	07/30/07 19:39	ARH	50-32-8	
Benzo(b)fluoranthene	6,500	ug/kg	300	8270C	07/30/07 19:39	ARH	205-99-2	
Benzo(k)fluoranthene	4,400	ug/kg	300	8270C	07/30/07 19:39	ARH	207-08-9	
Benzo(ghi)perylene	5,000	ug/kg	300	8270C	07/30/07 19:39	ARH	191-24-2	
Chrysene	5,000	ug/kg	300	8270C	07/30/07 19:39	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 19:39	ARH	53-70-3	
Fluoranthene	8,600	ug/kg	300	8270C	07/30/07 19:39	ARH	206-44-0	
Fluorene	400	ug/kg	300	8270C	07/30/07 19:39	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	4,400	ug/kg	300	8270C	07/30/07 19:39	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 19:39	ARH	91-20-3	
Phenanthrene	4,900	ug/kg	300	8270C	07/30/07 19:39	ARH	85-01-8	
Pyrene	10,500	ug/kg	300	8270C	07/30/07 19:39	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 19:39	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 19:39	ARH		

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Lab Sample ID: S32940.10
Sample Tag: SS2-14S
Collected Date/Time: 07/24/2007 10:20
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	94	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	8.62	mg/kg	0.10	6020	07/30/07 16:23	SLS	7440-38-2	
Lead	51.9	mg/kg	1.0	6020	07/30/07 16:23	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH	208-96-8	
Anthracene	500	ug/kg	300	8270C	07/30/07 20:48	ARH	120-12-7	
Benzo(a)anthracene	3,700	ug/kg	300	8270C	07/30/07 20:48	ARH	56-55-3	
Benzo(a)pyrene	4,800	ug/kg	300	8270C	07/30/07 20:48	ARH	50-32-8	
Benzo(b)fluoranthene	4,400	ug/kg	300	8270C	07/30/07 20:48	ARH	205-99-2	
Benzo(k)fluoranthene	3,900	ug/kg	300	8270C	07/30/07 20:48	ARH	207-08-9	
Benzo(ghi)perylene	3,200	ug/kg	300	8270C	07/30/07 20:48	ARH	191-24-2	
Chrysene	3,900	ug/kg	300	8270C	07/30/07 20:48	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH	53-70-3	
Fluoranthene	6,300	ug/kg	300	8270C	07/30/07 20:48	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	3,200	ug/kg	300	8270C	07/30/07 20:48	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH	91-20-3	
Phenanthrene	2,200	ug/kg	300	8270C	07/30/07 20:48	ARH	85-01-8	
Pyrene	6,600	ug/kg	300	8270C	07/30/07 20:48	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 20:48	ARH		

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Lab Sample ID: S32940.11
Sample Tag: SS2-14W
Collected Date/Time: 07/24/2007 10:25
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	94	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	7.20	mg/kg	0.10	6020	07/30/07 16:25	SLS	7440-38-2	
Lead	109	mg/kg	1.0	6020	07/30/07 16:25	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH	208-96-8	
Anthracene	500	ug/kg	300	8270C	07/30/07 21:10	ARH	120-12-7	
Benzo(a)anthracene	1,900	ug/kg	300	8270C	07/30/07 21:10	ARH	56-55-3	
Benzo(a)pyrene	2,800	ug/kg	300	8270C	07/30/07 21:10	ARH	50-32-8	
Benzo(b)fluoranthene	2,200	ug/kg	300	8270C	07/30/07 21:10	ARH	205-99-2	
Benzo(k)fluoranthene	2,400	ug/kg	300	8270C	07/30/07 21:10	ARH	207-08-9	
Benzo(ghi)perylene	2,100	ug/kg	300	8270C	07/30/07 21:10	ARH	191-24-2	
Chrysene	2,100	ug/kg	300	8270C	07/30/07 21:10	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH	53-70-3	
Fluoranthene	3,500	ug/kg	300	8270C	07/30/07 21:10	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,900	ug/kg	300	8270C	07/30/07 21:10	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH	91-20-3	
Phenanthrene	2,200	ug/kg	300	8270C	07/30/07 21:10	ARH	85-01-8	
Pyrene	3,900	ug/kg	300	8270C	07/30/07 21:10	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:10	ARH		

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Analytical Laboratory Report

Lab Sample ID: S32940.12
Sample Tag: SS2-15D-7
Collected Date/Time: 07/24/2007 10:45
Matrix: Soil
COC Reference: 041704

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	87	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 18:18	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.13
Sample Tag: SS2-15W
Collected Date/Time: 07/24/2007 10:55
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	94	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	120-12-7	
Benzo(a)anthracene	1,300	ug/kg	300	8270C	07/30/07 21:33	ARH	56-55-3	
Benzo(a)pyrene	1,900	ug/kg	300	8270C	07/30/07 21:33	ARH	50-32-8	
Benzo(b)fluoranthene	1,500	ug/kg	300	8270C	07/30/07 21:33	ARH	205-99-2	
Benzo(k)fluoranthene	1,300	ug/kg	300	8270C	07/30/07 21:33	ARH	207-08-9	
Benzo(ghi)perylene	1,300	ug/kg	300	8270C	07/30/07 21:33	ARH	191-24-2	
Chrysene	1,300	ug/kg	300	8270C	07/30/07 21:33	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	53-70-3	
Fluoranthene	2,700	ug/kg	300	8270C	07/30/07 21:33	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,300	ug/kg	300	8270C	07/30/07 21:33	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	91-20-3	
Phenanthrene	1,300	ug/kg	300	8270C	07/30/07 21:33	ARH	85-01-8	
Pyrene	2,700	ug/kg	300	8270C	07/30/07 21:33	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:33	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.14
Sample Tag: SS2-15N
Collected Date/Time: 07/24/2007 11:05
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	91	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,600	ug/kg	600	8270C	07/30/07 23:04	ARH	83-32-9	X
Acenaphthylene	Not detected	ug/kg	600	8270C	07/30/07 23:04	ARH	208-96-8	X
Anthracene	3,800	ug/kg	600	8270C	07/30/07 23:04	ARH	120-12-7	X
Benzo(a)anthracene	13,000	ug/kg	600	8270C	07/30/07 23:04	ARH	56-55-3	X
Benzo(a)pyrene	15,600	ug/kg	600	8270C	07/30/07 23:04	ARH	50-32-8	X
Benzo(b)fluoranthene	17,400	ug/kg	600	8270C	07/30/07 23:04	ARH	205-99-2	X
Benzo(k)fluoranthene	12,300	ug/kg	600	8270C	07/30/07 23:04	ARH	207-08-9	X
Benzo(ghi)perylene	9,900	ug/kg	600	8270C	07/30/07 23:04	ARH	191-24-2	X
Chrysene	14,800	ug/kg	600	8270C	07/30/07 23:04	ARH	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	600	8270C	07/30/07 23:04	ARH	53-70-3	X
Fluoranthene	25,600	ug/kg	600	8270C	07/30/07 23:04	ARH	206-44-0	X
Fluorene	1,300	ug/kg	600	8270C	07/30/07 23:04	ARH	86-73-7	X
Indeno(1,2,3-cd)pyrene	10,200	ug/kg	600	8270C	07/30/07 23:04	ARH	193-39-5	X
Naphthalene	Not detected	ug/kg	600	8270C	07/30/07 23:04	ARH	91-20-3	X
Phenanthrene	15,300	ug/kg	600	8270C	07/30/07 23:04	ARH	85-01-8	X
Pyrene	34,700	ug/kg	600	8270C	07/30/07 23:04	ARH	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	600	8270C	07/30/07 23:04	ARH	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	600	8270C	07/30/07 23:04	ARH		X

X-Elevated reporting limit due to matrix interference

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Analytical Laboratory Report

Lab Sample ID: S32940.15
Sample Tag: SS2-15E
Collected Date/Time: 07/24/2007 11:10
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	96	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	120-12-7	
Benzo(a)anthracene	600	ug/kg	300	8270C	07/30/07 21:56	ARH	56-55-3	
Benzo(a)pyrene	1,100	ug/kg	300	8270C	07/30/07 21:56	ARH	50-32-8	
Benzo(b)fluoranthene	800	ug/kg	300	8270C	07/30/07 21:56	ARH	205-99-2	
Benzo(k)fluoranthene	700	ug/kg	300	8270C	07/30/07 21:56	ARH	207-08-9	
Benzo(ghi)perylene	900	ug/kg	300	8270C	07/30/07 21:56	ARH	191-24-2	
Chrysene	600	ug/kg	300	8270C	07/30/07 21:56	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	53-70-3	
Fluoranthene	1,200	ug/kg	300	8270C	07/30/07 21:56	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	800	ug/kg	300	8270C	07/30/07 21:56	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	91-20-3	
Phenanthrene	600	ug/kg	300	8270C	07/30/07 21:56	ARH	85-01-8	
Pyrene	1,400	ug/kg	300	8270C	07/30/07 21:56	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 21:56	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.16
Sample Tag: SS2-24D-8.5
Collected Date/Time: 07/24/2007 11:30
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	82	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 18:41	ARH		

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Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S32940.17
Sample Tag: SS2-24S
Collected Date/Time: 07/24/2007 11:40
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	92	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	120-12-7	
Benzo(a)anthracene	600	ug/kg	300	8270C	07/30/07 16:14	ARH	56-55-3	
Benzo(a)pyrene	900	ug/kg	300	8270C	07/30/07 16:14	ARH	50-32-8	
Benzo(b)fluoranthene	800	ug/kg	300	8270C	07/30/07 16:14	ARH	205-99-2	
Benzo(k)fluoranthene	600	ug/kg	300	8270C	07/30/07 16:14	ARH	207-08-9	
Benzo(ghi)perylene	700	ug/kg	300	8270C	07/30/07 16:14	ARH	191-24-2	
Chrysene	700	ug/kg	300	8270C	07/30/07 16:14	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	53-70-3	
Fluoranthene	1,400	ug/kg	300	8270C	07/30/07 16:14	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	600	ug/kg	300	8270C	07/30/07 16:14	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	91-20-3	
Phenanthrene	700	ug/kg	300	8270C	07/30/07 16:14	ARH	85-01-8	
Pyrene	1,600	ug/kg	300	8270C	07/30/07 16:14	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 16:14	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.18
Sample Tag: Dup-06
Collected Date/Time: 07/24/2007 :
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	91	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 22:19	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.19
Sample Tag: SS2-24E
Collected Date/Time: 07/24/2007 11:55
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	90	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	56-55-3	
Benzo(a)pyrene	600	ug/kg	300	8270C	07/30/07 22:41	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	53-70-3	
Fluoranthene	500	ug/kg	300	8270C	07/30/07 22:41	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	85-01-8	
Pyrene	600	ug/kg	300	8270C	07/30/07 22:41	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 22:41	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.20
Sample Tag: SS2-24W
Collected Date/Time: 07/24/2007 12:00
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	92	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	400	ug/kg	300	8270C	07/30/07 18:31	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 18:31	ARH	208-96-8	
Anthracene	900	ug/kg	300	8270C	07/30/07 18:31	ARH	120-12-7	
Benzo(a)anthracene	3,000	ug/kg	300	8270C	07/30/07 18:31	ARH	56-55-3	
Benzo(a)pyrene	3,200	ug/kg	300	8270C	07/30/07 18:31	ARH	50-32-8	
Benzo(b)fluoranthene	2,500	ug/kg	300	8270C	07/30/07 18:31	ARH	205-99-2	
Benzo(k)fluoranthene	3,200	ug/kg	300	8270C	07/30/07 18:31	ARH	207-08-9	
Benzo(ghi)perylene	2,300	ug/kg	300	8270C	07/30/07 18:31	ARH	191-24-2	
Chrysene	3,200	ug/kg	300	8270C	07/30/07 18:31	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 18:31	ARH	53-70-3	
Fluoranthene	5,400	ug/kg	300	8270C	07/30/07 18:31	ARH	206-44-0	
Fluorene	400	ug/kg	300	8270C	07/30/07 18:31	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	2,300	ug/kg	300	8270C	07/30/07 18:31	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:31	ARH	91-20-3	
Phenanthrene	3,900	ug/kg	300	8270C	07/30/07 18:31	ARH	85-01-8	
Pyrene	6,300	ug/kg	300	8270C	07/30/07 18:31	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:31	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:31	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.21
Sample Tag: SS2-24N
Collected Date/Time: 07/24/2007 12:05
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	89	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	400	ug/kg	300	8270C	07/30/07 18:54	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 18:54	ARH	208-96-8	
Anthracene	800	ug/kg	300	8270C	07/30/07 18:54	ARH	120-12-7	
Benzo(a)anthracene	2,700	ug/kg	300	8270C	07/30/07 18:54	ARH	56-55-3	
Benzo(a)pyrene	3,000	ug/kg	300	8270C	07/30/07 18:54	ARH	50-32-8	
Benzo(b)fluoranthene	2,900	ug/kg	300	8270C	07/30/07 18:54	ARH	205-99-2	
Benzo(k)fluoranthene	2,900	ug/kg	300	8270C	07/30/07 18:54	ARH	207-08-9	
Benzo(ghi)perylene	2,300	ug/kg	300	8270C	07/30/07 18:54	ARH	191-24-2	
Chrysene	3,000	ug/kg	300	8270C	07/30/07 18:54	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 18:54	ARH	53-70-3	
Fluoranthene	4,700	ug/kg	300	8270C	07/30/07 18:54	ARH	206-44-0	
Fluorene	300	ug/kg	300	8270C	07/30/07 18:54	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	2,100	ug/kg	300	8270C	07/30/07 18:54	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:54	ARH	91-20-3	
Phenanthrene	3,100	ug/kg	300	8270C	07/30/07 18:54	ARH	85-01-8	
Pyrene	5,200	ug/kg	300	8270C	07/30/07 18:54	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:54	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:54	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.22
Sample Tag: SS2-19D-3
Collected Date/Time: 07/24/2007 13:15
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	90	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	400	ug/kg	300	8270C	07/30/07 16:37	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 16:37	ARH	208-96-8	
Anthracene	500	ug/kg	300	8270C	07/30/07 16:37	ARH	120-12-7	
Benzo(a)anthracene	1,300	ug/kg	300	8270C	07/30/07 16:37	ARH	56-55-3	
Benzo(a)pyrene	1,400	ug/kg	300	8270C	07/30/07 16:37	ARH	50-32-8	
Benzo(b)fluoranthene	1,200	ug/kg	300	8270C	07/30/07 16:37	ARH	205-99-2	
Benzo(k)fluoranthene	1,300	ug/kg	300	8270C	07/30/07 16:37	ARH	207-08-9	
Benzo(ghi)perylene	1,000	ug/kg	300	8270C	07/30/07 16:37	ARH	191-24-2	
Chrysene	1,400	ug/kg	300	8270C	07/30/07 16:37	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 16:37	ARH	53-70-3	
Fluoranthene	3,600	ug/kg	300	8270C	07/30/07 16:37	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 16:37	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,000	ug/kg	300	8270C	07/30/07 16:37	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 16:37	ARH	91-20-3	
Phenanthrene	3,200	ug/kg	300	8270C	07/30/07 16:37	ARH	85-01-8	
Pyrene	3,400	ug/kg	300	8270C	07/30/07 16:37	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 16:37	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 16:37	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.23
Sample Tag: SS2-19W
Collected Date/Time: 07/24/2007 13:25
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	91	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	56-55-3	
Benzo(a)pyrene	300	ug/kg	300	8270C	07/30/07 17:00	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	53-70-3	
Fluoranthene	500	ug/kg	300	8270C	07/30/07 17:00	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	91-20-3	
Phenanthrene	300	ug/kg	300	8270C	07/30/07 17:00	ARH	85-01-8	
Pyrene	500	ug/kg	300	8270C	07/30/07 17:00	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:00	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.24
Sample Tag: SS2-19S
Collected Date/Time: 07/24/2007 13:35
Matrix: Soil
COC Reference: 041705

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	90	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	120-12-7	
Benzo(a)anthracene	500	ug/kg	300	8270C	07/30/07 17:23	ARH	56-55-3	
Benzo(a)pyrene	600	ug/kg	300	8270C	07/30/07 17:23	ARH	50-32-8	
Benzo(b)fluoranthene	600	ug/kg	300	8270C	07/30/07 17:23	ARH	205-99-2	
Benzo(k)fluoranthene	600	ug/kg	300	8270C	07/30/07 17:23	ARH	207-08-9	
Benzo(ghi)perylene	500	ug/kg	300	8270C	07/30/07 17:23	ARH	191-24-2	
Chrysene	600	ug/kg	300	8270C	07/30/07 17:23	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	53-70-3	
Fluoranthene	1,100	ug/kg	300	8270C	07/30/07 17:23	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	500	ug/kg	300	8270C	07/30/07 17:23	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	91-20-3	
Phenanthrene	700	ug/kg	300	8270C	07/30/07 17:23	ARH	85-01-8	
Pyrene	1,000	ug/kg	300	8270C	07/30/07 17:23	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:23	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.25
Sample Tag: SS2-19E
Collected Date/Time: 07/24/2007 13:45
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	93	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/27/07 19:03	ARH		

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Analytical Laboratory Report

Lab Sample ID: S32940.26
Sample Tag: SS2-19N
Collected Date/Time: 07/24/2007 13:50
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	92	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 17:46	ARH		

Analytical Laboratory Report

Lab Sample ID: S32940.27
Sample Tag: SS2-23D-2.5
Collected Date/Time: 07/24/2007 14:35
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
Inorganics								
Total Solids	89	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	1.34	mg/kg	0.10	6020	07/30/07 16:40	SLS	7440-38-2	

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Shane Noreen
LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S32940.28
Sample Tag: SS2-23W
Collected Date/Time: 07/24/2007 14:45
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
Inorganics								
Total Solids	78	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	2.83	mg/kg	0.10	6020	07/30/07 16:43	SLS	7440-38-2	

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LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S32940.29
Sample Tag: SS2-23S
Collected Date/Time: 07/24/2007 14:58
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
Inorganics								
Total Solids	90	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	2.69	mg/kg	0.10	6020	07/30/07 16:45	SLS	7440-38-2	

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LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S32940.30
Sample Tag: SS2-23E
Collected Date/Time: 07/24/2007 14:55
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
Inorganics								
Total Solids	93	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	7.51	mg/kg	0.10	6020	07/30/07 16:48	SLS	7440-38-2	

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Aug 07, 2009 19:19

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Analytical Laboratory Report

Lab Sample ID: S32940.31
Sample Tag: SS2-23N
Collected Date/Time: 07/24/2007 15:05
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
Inorganics								
Total Solids	92	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	4.55	mg/kg	0.10	6020	07/30/07 16:50	SLS	7440-38-2	

Analytical Laboratory Report

Lab Sample ID: S32940.32
Sample Tag: Dup-07
Collected Date/Time: 07/24/2007 :
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	07/30/07 12:00	SLS		
Inorganics								
Total Solids	93	%	1	160.3	07/26/07 14:22	WAR		
Metals								
Arsenic	7.32	mg/kg	0.10	6020	07/30/07 16:52	SLS	7440-38-2	

Analytical Laboratory Report

Lab Sample ID: S32940.33
Sample Tag: SS2-27D-2.5
Collected Date/Time: 07/24/2007 15:15
Matrix: Soil
COC Reference: 041706

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.4	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	07/26/07 23:22	EMR		
Inorganics								
Total Solids	92	%	1	160.3	07/26/07 14:22	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	56-55-3	
Benzo(a)pyrene	400	ug/kg	300	8270C	07/30/07 18:08	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	53-70-3	
Fluoranthene	400	ug/kg	300	8270C	07/30/07 18:08	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	85-01-8	
Pyrene	500	ug/kg	300	8270C	07/30/07 18:08	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/30/07 18:08	ARH		

Merit Laboratories, Inc.

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Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 2

041702

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills | STATE: MI | ZIP CODE: 48335
PHONE NO.: 248-477-5701 | FAX NO. | P.O. NO.
E-MAIL ADDRESS | QUOTE NO.

INVOICE TO

CONTACT NAME | ☐ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO. | FAX NO. | P.O. NO.

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Snowden

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

SPECIAL INSTRUCTIONS/NOTES: Report with previous set

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOA's	MT 15 Metals	Arsenic
	7/20	11:25	SB3-17-0.5	S	1	X							X	X	
			DUP-01	S	1	X							X	X	
		11:30	SB3-17-4	S	1	X							X	X	
			DUP-02	S	1	X							X	X	
		1:55	SS2-22N	S	1	X									X
		2:05	SS2-22W	S	1	X									X
		2:10	SS2 22D-1.2	S	1	X									X
		2:15	SS2-32E	S	1	X									X
		2:30	SS2-22S	S	1	X									X
		2:55	SS2-21W	S	1	X							X		X
		3:15	SS2-21D-4.8	S	1	X							X		X
	↓	3:30	SS2-21S	S	1	X							X		X

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL _____

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C.O.C. PAGE # 1 OF 2

041703

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

SPECIAL INSTRUCTIONS/NOTES

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	H2SO4	HNO3	NaOH	OTHER	PAHs	MI 10 Metals	Arsenic
	7/20	3:40	SS2-21N	S	1	X								X
		3:50	SS2-21E	S	1	X								X
			DUP-03	S	1	X								X
		4:05	SS2-40	S	1	X								X
		4:15	SS2-39	S	1	X								X
		4:30	SS2-36	S	1	X								X
		4:40	SS2-37	S	1	X								X
			DUP-04	S	1	X								X
	↓	4:50	SS2-38	S	1	X								X

RELINQUISHED BY: SIGNATURE/ORGANIZATION: O'Brien & Gere DATE: 7.20.07 TIME: 12:15
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: 7.20.07 TIME: 13:00
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

SEAL NO.: SEAL INTACT YES ☐ NO ☐ INITIALS:
SEAL NO.: SEAL INTACT YES ☐ NO ☐ INITIALS:

NOTES: TEMP. ON ARRIVAL:

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C.O.C. PAGE # 1 OF 5

041704

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yuntz
COMPANY: O'Brien + Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM NFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☑ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

SPECIAL INSTRUCTIONS/NOTES

MERIT LAB NO	DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	NaOH/ZnAc	OTHER	PAHs	Arsenic	Mercury	Lead
	7/29	8:55	SS2-20-D-8	S	1							X			X	
		9:05	SS2-20 N	S	1							X			X	
		9:15	SS2-20 W	S	1							X			X	
		9:20	SS2-20 S	S	1							X			X	
		9:25	SS2-20 E	S	1							X			X	
		9:45	SS2-14-D-5	S	1							X	X	X	X	
		9:55	SS2-14 N	S	1							X	X	X	X	
			DUP-05	S	1							X	X	X	X	
		10:05	SS2-14 E	S	1							X	X	X	X	
		10:20	SS2-14 S	S	1							X	X	X	X	
		10:25	SS2-14 W	S	1							X	X	X	X	
	V	10:45	SS2-15 D-7	S	1							X	X			

Shane Noreen LFR Aug 07, 2009 19:19 Confidential under FOIA

Confidential under FOIA Shane Noreen LFR Aug 07, 2009 19:19

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RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL _____

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041705

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yuntz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

SPECIAL INSTRUCTIONS/NOTES

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	H2SO4	NaOH	HNO3	OTHER	PAHs	Arsenic	Mercury	Lead
	8/24	10:55	SS2-15W	S	1						X				
		11:05	SS2-15N	S	1						X				
		11:0	SS2-15E	S	1						X				
		1130	SS2-24D-8.5	S	1						X				
		1140	SS2-24S	S	1						X				
			DUP-060	S	1						X				
		11:55	SS2-24E	S	1						X				
		1200	SS2-24W	S	1						X				
		1205	SS2-24N	S	1						X				
		115	SS2-19D-3	S	1						X				
		125	SS2-19W	S	1						X				
	V	135	SS2-19S	S	1						X				

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	RELINQUISHED BY: SIGNATURE/ORGANIZATION
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 7/25	TIME 1345	RECEIVED BY: SIGNATURE/ORGANIZATION
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS / NOTES: TEMP. ON ARRIVAL
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME	SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS

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041706

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☑ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO3	H2SO4	NaOH	MeOH	OTHER	PAHs	Arsenic	Mercury	SPECIAL INSTRUCTIONS/NOTES
	7/24	1145	SS2-19E	S	1	X							X	X	X	
		1150	SS2-19N	S	1	X							X	X	X	
		1235	SB2-23D-2.5	S	1	X							X	X	X	
		1245	SB2-23W	S	1	X							X	X	X	
		1250	SB2-23S	S	1	X							X	X	X	
		1255	SB2-23E	S	1	X							X	X	X	
		1305	SB2-23N	S	1	X							X	X	X	
			DUP-07	S	1	X							X	X	X	
		1315	SB3-27D-2.5	S	1	X							X	X	X	
	↓	1350	SB4-07D-2	S	1	X							X	X	X	

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RELINQUISHED BY: SIGNATURE/ORGANIZATION: [signature] O'Brien & Gere — DATE: 7/25 — TIME: 1545
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature] — DATE: 7/25/07 — TIME: 1725
RELINQUISHED BY: SIGNATURE/ORGANIZATION: — DATE: — TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: — DATE: — TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: — DATE: — TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: — DATE: — TIME:

SEAL NO. — SEAL INTACT YES ☐ NO ☐ — INITIALS
SEAL NO. — SEAL INTACT YES ☐ NO ☐ — INITIALS

NOTES: TEMP. ON ARRIVAL

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Analytical Laboratory Report

Revised Report

Report ID: S33160.01(02)
Generated on 08/21/2007
Replaces report S33160.01(01) generated on 08/17/2007

Report to

Attention: Mr. Clifford Yantz
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S33160.01-S33160.21
Project: GM MFD Grand Blanc
Collected Date: 08/09/2007
Submitted Date/Time: 08/09/2007 16:20
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
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Violetta F. Murshak
Laboratory Director

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Sample Summary (21 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S33160.01	SS4-17W	Soil	08/09/2007 09:00
S33160.02	SS4-17NW	Soil	08/09/2007 09:10
S33160.03	SS4-17N	Soil	08/09/2007 09:20
S33160.04	SS2-15NN	Soil	08/09/2007 10:20
S33160.05	SS2-14EE	Soil	08/09/2007 10:30
S33160.06	SS2-14SS	Soil	08/09/2007 10:45
S33160.07	SS2-14WW	Soil	08/09/2007 11:15
S33160.08	SS2-24NN	Soil	08/09/2007 11:25
S33160.09	SS2-24NW	Soil	08/09/2007 11:35
S33160.10	SS2-24WW	Soil	08/09/2007 11:45
S33160.11	SS2-22SW	Soil	08/09/2007 12:20
S33160.12	SS2-22WW	Soil	08/09/2007 12:25
S33160.13	SS2-21SS	Soil	08/09/2007 12:35
S33160.14	Dup-08	Soil	08/09/2007
S33160.15	SS2-21EE	Soil	08/09/2007 12:40
S33160.16	SS2-21WW	Soil	08/09/2007 12:45
S33160.17	SS2-21NN	Soil	08/09/2007 12:50
S33160.18	SS2-16E	Soil	08/09/2007 13:00
S33160.19	SS2-16W	Soil	08/09/2007 13:05
S33160.20	Dup-09	Soil	08/09/2007
S33160.21	SS2-41	Soil	08/09/2007 13:15

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Shane Noreen
LFR
Aug 07, 2009 19:19

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.04
Sample Tag: SS2-15NN
Collected Date/Time: 08/09/2007 10:20
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/09/07 23:09	EMR		
Inorganics								
Total Solids	97	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	91-20-3	
Phenanthrene	400	ug/kg	300	8270C	08/15/07 17:02	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:02	ARH		

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.05
Sample Tag: SS2-14EE
Collected Date/Time: 08/09/2007 10:30
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
PNA Extraction	Completed			3550B	08/09/07 23:09	EMR		
Inorganics								
Total Solids	94	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	4.43	mg/kg	0.10	6020	08/14/07 11:58	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	120-12-7	
Benzo(a)anthracene	900	ug/kg	300	8270C	08/15/07 17:24	ARH	56-55-3	
Benzo(a)pyrene	1,400	ug/kg	300	8270C	08/15/07 17:24	ARH	50-32-8	
Benzo(b)fluoranthene	1,200	ug/kg	300	8270C	08/15/07 17:24	ARH	205-99-2	
Benzo(k)fluoranthene	1,000	ug/kg	300	8270C	08/15/07 17:24	ARH	207-08-9	
Benzo(ghi)perylene	1,100	ug/kg	300	8270C	08/15/07 17:24	ARH	191-24-2	
Chrysene	900	ug/kg	300	8270C	08/15/07 17:24	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	53-70-3	
Fluoranthene	1,400	ug/kg	300	8270C	08/15/07 17:24	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	900	ug/kg	300	8270C	08/15/07 17:24	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	91-20-3	
Phenanthrene	600	ug/kg	300	8270C	08/15/07 17:24	ARH	85-01-8	
Pyrene	1,500	ug/kg	300	8270C	08/15/07 17:24	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:24	ARH		

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.06
Sample Tag: SS2-14SS
Collected Date/Time: 08/09/2007 10:45
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
PNA Extraction	Completed			3550B	08/09/07 23:09	EMR		
Inorganics								
Total Solids	87	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	10.8	mg/kg	0.10	6020	08/14/07 12:01	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	120-12-7	
Benzo(a)anthracene	1,300	ug/kg	300	8270C	08/15/07 17:47	ARH	56-55-3	
Benzo(a)pyrene	1,900	ug/kg	300	8270C	08/15/07 17:47	ARH	50-32-8	
Benzo(b)fluoranthene	1,800	ug/kg	300	8270C	08/15/07 17:47	ARH	205-99-2	
Benzo(k)fluoranthene	1,500	ug/kg	300	8270C	08/15/07 17:47	ARH	207-08-9	
Benzo(ghi)perylene	1,300	ug/kg	300	8270C	08/15/07 17:47	ARH	191-24-2	
Chrysene	1,500	ug/kg	300	8270C	08/15/07 17:47	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	53-70-3	
Fluoranthene	2,400	ug/kg	300	8270C	08/15/07 17:47	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,200	ug/kg	300	8270C	08/15/07 17:47	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	91-20-3	
Phenanthrene	1,100	ug/kg	300	8270C	08/15/07 17:47	ARH	85-01-8	
Pyrene	2,400	ug/kg	300	8270C	08/15/07 17:47	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 17:47	ARH		

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.07
Sample Tag: SS2-14WW
Collected Date/Time: 08/09/2007 11:15
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
PNA Extraction	Completed			3550B	08/09/07 23:09	EMR		
Inorganics								
Total Solids	81	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	14.3	mg/kg	0.10	6020	08/14/07 12:03	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	120-12-7	
Benzo(a)anthracene	1,000	ug/kg	300	8270C	08/15/07 18:10	ARH	56-55-3	
Benzo(a)pyrene	1,500	ug/kg	300	8270C	08/15/07 18:10	ARH	50-32-8	
Benzo(b)fluoranthene	1,400	ug/kg	300	8270C	08/15/07 18:10	ARH	205-99-2	
Benzo(k)fluoranthene	1,200	ug/kg	300	8270C	08/15/07 18:10	ARH	207-08-9	
Benzo(ghi)perylene	900	ug/kg	300	8270C	08/15/07 18:10	ARH	191-24-2	
Chrysene	1,200	ug/kg	300	8270C	08/15/07 18:10	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	53-70-3	
Fluoranthene	2,300	ug/kg	300	8270C	08/15/07 18:10	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	900	ug/kg	300	8270C	08/15/07 18:10	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	91-20-3	
Phenanthrene	1,200	ug/kg	300	8270C	08/15/07 18:10	ARH	85-01-8	
Pyrene	2,200	ug/kg	300	8270C	08/15/07 18:10	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:10	ARH		

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.08
Sample Tag: SS2-24NN
Collected Date/Time: 08/09/2007 11:25
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/09/07 23:09	EMR		
Inorganics								
Total Solids	96	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	83-32-9	X
Acenaphthylene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	208-96-8	X
Anthracene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	120-12-7	X
Benzo(a)anthracene	700	ug/kg	400	8270C	08/15/07 20:49	ARH	56-55-3	X
Benzo(a)pyrene	1,000	ug/kg	400	8270C	08/15/07 20:49	ARH	50-32-8	X
Benzo(b)fluoranthene	1,000	ug/kg	400	8270C	08/15/07 20:49	ARH	205-99-2	X
Benzo(k)fluoranthene	1,000	ug/kg	400	8270C	08/15/07 20:49	ARH	207-08-9	X
Benzo(ghi)perylene	700	ug/kg	400	8270C	08/15/07 20:49	ARH	191-24-2	X
Chrysene	1,000	ug/kg	400	8270C	08/15/07 20:49	ARH	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	53-70-3	X
Fluoranthene	1,300	ug/kg	400	8270C	08/15/07 20:49	ARH	206-44-0	X
Fluorene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	86-73-7	X
Indeno(1,2,3-cd)pyrene	700	ug/kg	400	8270C	08/15/07 20:49	ARH	193-39-5	X
Naphthalene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	91-20-3	X
Phenanthrene	700	ug/kg	400	8270C	08/15/07 20:49	ARH	85-01-8	X
Pyrene	1,400	ug/kg	400	8270C	08/15/07 20:49	ARH	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	400	8270C	08/15/07 20:49	ARH		X

X-Elevated reporting limit due to matrix interference

Confidential under FOIA
Shane Noreen
LFR
Aug 07, 2009 19:19

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.09
Sample Tag: SS2-24NW
Collected Date/Time: 08/09/2007 11:35
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	96	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	208-96-8	
Anthracene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	120-12-7	
Benzo(a)anthracene	1,100	ug/kg	400	8270C	08/15/07 21:12	ARH	56-55-3	
Benzo(a)pyrene	1,400	ug/kg	400	8270C	08/15/07 21:12	ARH	50-32-8	
Benzo(b)fluoranthene	1,500	ug/kg	400	8270C	08/15/07 21:12	ARH	205-99-2	
Benzo(k)fluoranthene	800	ug/kg	400	8270C	08/15/07 21:12	ARH	207-08-9	
Benzo(ghi)perylene	800	ug/kg	400	8270C	08/15/07 21:12	ARH	191-24-2	
Chrysene	1,100	ug/kg	400	8270C	08/15/07 21:12	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	53-70-3	
Fluoranthene	1,900	ug/kg	400	8270C	08/15/07 21:12	ARH	206-44-0	
Fluorene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	800	ug/kg	400	8270C	08/15/07 21:12	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	91-20-3	
Phenanthrene	1,200	ug/kg	400	8270C	08/15/07 21:12	ARH	85-01-8	
Pyrene	2,000	ug/kg	400	8270C	08/15/07 21:12	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	400	8270C	08/15/07 21:12	ARH		

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.10
Sample Tag: SS2-24WW
Collected Date/Time: 08/09/2007 11:45
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	92	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	120-12-7	
Benzo(a)anthracene	700	ug/kg	300	8270C	08/15/07 18:33	ARH	56-55-3	
Benzo(a)pyrene	1,100	ug/kg	300	8270C	08/15/07 18:33	ARH	50-32-8	
Benzo(b)fluoranthene	1,100	ug/kg	300	8270C	08/15/07 18:33	ARH	205-99-2	
Benzo(k)fluoranthene	900	ug/kg	300	8270C	08/15/07 18:33	ARH	207-08-9	
Benzo(ghi)perylene	1,100	ug/kg	300	8270C	08/15/07 18:33	ARH	191-24-2	
Chrysene	800	ug/kg	300	8270C	08/15/07 18:33	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	53-70-3	
Fluoranthene	1,200	ug/kg	300	8270C	08/15/07 18:33	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	900	ug/kg	300	8270C	08/15/07 18:33	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	91-20-3	
Phenanthrene	500	ug/kg	300	8270C	08/15/07 18:33	ARH	85-01-8	
Pyrene	1,300	ug/kg	300	8270C	08/15/07 18:33	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:33	ARH		

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.11
Sample Tag: SS2-22SW
Collected Date/Time: 08/09/2007 12:20
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
Inorganics								
Total Solids	86	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	1.22	mg/kg	0.10	6020	08/14/07 12:07	PER	7440-38-2	

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.12
Sample Tag: SS2-22WW
Collected Date/Time: 08/09/2007 12:25
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
Inorganics								
Total Solids	82	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	5.05	mg/kg	0.10	6020	08/14/07 12:09	PER	7440-38-2	

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.13
Sample Tag: SS2-21SS
Collected Date/Time: 08/09/2007 12:35
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	86	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	5.60	mg/kg	0.10	6020	08/14/07 12:11	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 13:36	ARH		

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.14
Sample Tag: Dup-08
Collected Date/Time: 08/09/2007 :
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	86	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	4.53	mg/kg	0.10	6020	08/14/07 12:12	PER	7440-38-2	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	56-55-3	
Benzo(a)pyrene	400	ug/kg	300	8270C	08/15/07 13:59	ARH	50-32-8	
Benzo(b)fluoranthene	500	ug/kg	300	8270C	08/15/07 13:59	ARH	205-99-2	
Benzo(k)fluoranthene	400	ug/kg	300	8270C	08/15/07 13:59	ARH	207-08-9	
Benzo(ghi)perylene	400	ug/kg	300	8270C	08/15/07 13:59	ARH	191-24-2	
Chrysene	300	ug/kg	300	8270C	08/15/07 13:59	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	53-70-3	
Fluoranthene	300	ug/kg	300	8270C	08/15/07 13:59	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	400	ug/kg	300	8270C	08/15/07 13:59	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	85-01-8	
Pyrene	300	ug/kg	300	8270C	08/15/07 13:59	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 13:59	ARH		

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.15
Sample Tag: SS2-21EE
Collected Date/Time: 08/09/2007 12:40
Matrix: Soil
COC Reference: 04134

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	82	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 18:56	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 18:56	ARH	208-96-8	
Anthracene	500	ug/kg	300	8270C	08/15/07 18:56	ARH	120-12-7	
Benzo(a)anthracene	2,000	ug/kg	300	8270C	08/15/07 18:56	ARH	56-55-3	
Benzo(a)pyrene	2,700	ug/kg	300	8270C	08/15/07 18:56	ARH	50-32-8	
Benzo(b)fluoranthene	2,600	ug/kg	300	8270C	08/15/07 18:56	ARH	205-99-2	
Benzo(k)fluoranthene	2,200	ug/kg	300	8270C	08/15/07 18:56	ARH	207-08-9	
Benzo(ghi)perylene	1,700	ug/kg	300	8270C	08/15/07 18:56	ARH	191-24-2	
Chrysene	2,200	ug/kg	300	8270C	08/15/07 18:56	ARH	218-01-9	
Dibenzo(ah)anthracene	700	ug/kg	300	8270C	08/15/07 18:56	ARH	53-70-3	
Fluoranthene	4,100	ug/kg	300	8270C	08/15/07 18:56	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 18:56	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,700	ug/kg	300	8270C	08/15/07 18:56	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:56	ARH	91-20-3	
Phenanthrene	2,300	ug/kg	300	8270C	08/15/07 18:56	ARH	85-01-8	
Pyrene	3,800	ug/kg	300	8270C	08/15/07 18:56	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:56	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 18:56	ARH		

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.16
Sample Tag: SS2-21WW
Collected Date/Time: 08/09/2007 12:45
Matrix: Soil
COC Reference: 04137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/14/07 12:00	PER		
Inorganics								
Total Solids	71	%	1	160.3	08/10/07 13:22	LBR		
Metals								
Arsenic	47.2	mg/kg	0.10	6020	08/14/07 12:14	PER	7440-38-2	

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Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.17
Sample Tag: SS2-21NN
Collected Date/Time: 08/09/2007 12:50
Matrix: Soil
COC Reference: 04137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	86	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	56-55-3	
Benzo(a)pyrene	300	ug/kg	300	8270C	08/15/07 14:22	ARH	50-32-8	
Benzo(b)fluoranthene	400	ug/kg	300	8270C	08/15/07 14:22	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	53-70-3	
Fluoranthene	500	ug/kg	300	8270C	08/15/07 14:22	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	85-01-8	
Pyrene	400	ug/kg	300	8270C	08/15/07 14:22	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 14:22	ARH		

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.18
Sample Tag: SS2-16E
Collected Date/Time: 08/09/2007 13:00
Matrix: Soil
COC Reference: 04137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	89	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	120-12-7	
Benzo(a)anthracene	500	ug/kg	300	8270C	08/15/07 19:18	ARH	56-55-3	
Benzo(a)pyrene	700	ug/kg	300	8270C	08/15/07 19:18	ARH	50-32-8	
Benzo(b)fluoranthene	1,000	ug/kg	300	8270C	08/15/07 19:18	ARH	205-99-2	
Benzo(k)fluoranthene	800	ug/kg	300	8270C	08/15/07 19:18	ARH	207-08-9	
Benzo(ghi)perylene	600	ug/kg	300	8270C	08/15/07 19:18	ARH	191-24-2	
Chrysene	800	ug/kg	300	8270C	08/15/07 19:18	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	53-70-3	
Fluoranthene	1,100	ug/kg	300	8270C	08/15/07 19:18	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	500	ug/kg	300	8270C	08/15/07 19:18	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	91-20-3	
Phenanthrene	400	ug/kg	300	8270C	08/15/07 19:18	ARH	85-01-8	
Pyrene	1,100	ug/kg	300	8270C	08/15/07 19:18	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 19:18	ARH		

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.19
Sample Tag: SS2-16W
Collected Date/Time: 08/09/2007 13:05
Matrix: Soil
COC Reference: 04137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	79	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	53-70-3	
Fluoranthene	300	ug/kg	300	8270C	08/15/07 19:41	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	85-01-8	
Pyrene	300	ug/kg	300	8270C	08/15/07 19:41	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 19:41	ARH		

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.20
Sample Tag: Dup-09
Collected Date/Time: 08/09/2007 :
Matrix: Soil
COC Reference: 04137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	83	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	208-96-8	
Anthracene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	120-12-7	
Benzo(a)anthracene	750	ug/kg	330	8270C	08/15/07 20:27	ARH	56-55-3	
Benzo(a)pyrene	1,210	ug/kg	330	8270C	08/15/07 20:27	ARH	50-32-8	
Benzo(b)fluoranthene	2,960	ug/kg	330	8270C	08/15/07 20:27	ARH	205-99-2	
Benzo(k)fluoranthene	3,050	ug/kg	330	8270C	08/15/07 20:27	ARH	207-08-9	
Benzo(ghi)perylene	820	ug/kg	330	8270C	08/15/07 20:27	ARH	191-24-2	
Chrysene	1,410	ug/kg	330	8270C	08/15/07 20:27	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	53-70-3	
Fluoranthene	2,040	ug/kg	330	8270C	08/15/07 20:27	ARH	206-44-0	
Fluorene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	830	ug/kg	330	8270C	08/15/07 20:27	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	91-20-3	
Phenanthrene	580	ug/kg	330	8270C	08/15/07 20:27	ARH	85-01-8	
Pyrene	1,910	ug/kg	330	8270C	08/15/07 20:27	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	330	8270C	08/15/07 20:27	ARH		

Merit Laboratories, Inc.

Analytical Laboratory Report

Revised Report

Lab Sample ID: S33160.21
Sample Tag: SS2-41
Collected Date/Time: 08/09/2007 13:15
Matrix: Soil
COC Reference: 04137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/10/07 18:39	EMR		
Inorganics								
Total Solids	71	%	1	160.3	08/10/07 13:22	LBR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/15/07 20:04	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/15/07 20:04	ARH	208-96-8	
Anthracene	600	ug/kg	300	8270C	08/15/07 20:04	ARH	120-12-7	
Benzo(a)anthracene	3,300	ug/kg	300	8270C	08/15/07 20:04	ARH	56-55-3	
Benzo(a)pyrene	4,100	ug/kg	300	8270C	08/15/07 20:04	ARH	50-32-8	
Benzo(b)fluoranthene	3,800	ug/kg	300	8270C	08/15/07 20:04	ARH	205-99-2	
Benzo(k)fluoranthene	3,400	ug/kg	300	8270C	08/15/07 20:04	ARH	207-08-9	
Benzo(ghi)perylene	2,100	ug/kg	300	8270C	08/15/07 20:04	ARH	191-24-2	
Chrysene	3,500	ug/kg	300	8270C	08/15/07 20:04	ARH	218-01-9	
Dibenzo(ah)anthracene	800	ug/kg	300	8270C	08/15/07 20:04	ARH	53-70-3	
Fluoranthene	6,100	ug/kg	300	8270C	08/15/07 20:04	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/15/07 20:04	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	2,200	ug/kg	300	8270C	08/15/07 20:04	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/15/07 20:04	ARH	91-20-3	
Phenanthrene	2,200	ug/kg	300	8270C	08/15/07 20:04	ARH	85-01-8	
Pyrene	6,000	ug/kg	300	8270C	08/15/07 20:04	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 20:04	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/15/07 20:04	ARH		

GM REALM ENCORE

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 1 OF 2

ID # Nº 04134

SSOW Ref. Code:

Required Client Information:

Company: O'Brien & Gere	Report To: Cliff Yantz
Address: 37000 Grand River	Copy To:
Farmington Hills	Invoice To:
MI 48335	P.O.:
Phone: 248-477-5701	Project Name: GM MFD Grand Blanc
Fax:	Project Number:
E-mail:	

Laboratory:	Merit Labs
Laboratory Location:	East Lansing, MI
Laboratory Contact:	
Requested Due Date:	TAT: Standard
QA/QC Requirements:	

Valid Matrix Codes: WG Groundwater; WB Borehole Water; WS Surface Water; SO Soil; SE Sediment; See Back for Additional Codes

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# of Containers	Preservative: Unpreserved	H2SO4	HNO3	NaOH	Other:	Analysis and Method: PAHs	Arsenic	Remarks/Lab ID
33160													
.01 1.	SS4-17W	SO	8/9/07	0900	1	X					X		
.02 2.	SS4-17 NW	SO		0910	1	X					X		
.03 3.	SS4-17 N	SO		0930	1	X					X		
.04 4.	SS2-15 NN	SO		1000	1	X					X		
.05 5.	SS2-14 EE	SO		1030	1	X					X	X	
.06 6.	SS2-14 SS	SO		1045	1	X					X	X	
.07 7.	SS2-14 WW	SO		1115	1	X					X	X	
.08 8.	SS2-24 NN	SO		1125	1	X					X		
.09 9.	SS2-24 NW	SO		1135	1	X					X		
.10 10.	SS2-24 WW	SO		1145	1	X					X		
.11 11.	SS2-22 SW	SO		1220	1	X					X	X	
.12 12.	SS2-22 WW	SO		1225	1	X					X	X	
.13 13.	SS2-21 SS	SO		1235	1	X					X	X	
.14 14.	DUP-08	SO			1	X					X	X	
.15 15.	SS2-21 EE	SO		1240	1	X					X		
	TOTAL NUMBER OF CONTAINERS												

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
	1	O'Brien + Gere	8/9/07	14:40	OBG	8/9/07	1440
AIRBILL NO.		OBG	8-9-07	1620		8-9-07	1620

Sample Condition

Temp in °C	4.0
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Sampler Name: Kevin Schneider

Sampler Signature: Date: 8/9/07

Distribution: WHITE - Fully Executed Copy YELLOW - Receiving Laboratory Copy PINK - Sampler Copy

REV. 0 (6/04)

GM REALM ENCORE

CHAIN-OF-CUSTODY / Analytical Request Document

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

PAGE 2 OF 2

ID # Nº 04137

Required Client Information:

Company: O'Brien & Gere	Report To: Cliff Yantz
Address: 37000 Grand River	Copy To:
Farmington Hills	Invoice To:
MI 48335	P.O.:
Phone: 248-477-5701	Project Name: GM MFD Grand Blanc
Fax:	Project Number:
E-mail:	

Laboratory:	Merit Labs
Laboratory Location:	East Lansing
Laboratory Contact:	
Requested Due Date:	TAT: Standard
QA/QC Requirements:	

SSOW Ref. Code:

Valid Matrix Codes: WG Groundwater; WB Borehole Water; WS Surface Water; SO Soil; SE Sediment; See Back for Additional Codes

Analysis and Method

	Sample Identification:	Matrix Code	Date Collected	Time Collected	# of Containers	Preservative: Unpreserved	H2SO4	HNO3	NaOH	Other:	PAHs	Arsenic	Remarks/Lab ID
33160 .16	1. SS2-21 WW	SO	8/9/07	1605	1	X					X	X	
.17	2. SS2-21 NN	SO		1030	1	X					X		
.18	3. SS2-16 E	SO		1300	1	X					X		
.19	4. SS2-16 W	SO		1305	1	X					X		
.20	5. DUP-09	SO				X					X		
.21	6. SS2-41	SO		1315	1	X					X		
	7.												
	8.												
	9.												
	10.												
	11.												
	12.												
	13.												
	14.												
	15.												
	TOTAL NUMBER OF CONTAINERS												

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
		O'Brien & Gere	8/9/07	1440	OBG	8/9/07	1440
AIRBILL NO.		OBG	8/9/07	1620		8-9-07	1620

Sample Condition

Temp in °C	4.1
Received on Ice	Y / N
Sealed Cooler	Y / N
Samples Intact	Y / N

Additional Comments:

Sampler Name: Kevin Schneider

Sampler Signature: [signature] Date: 8/9/07

Distribution: WHITE - Fully Executed Copy YELLOW - Receiving Laboratory Copy PINK - Sampler Copy

REV. 0 (6/04)

Analytical Laboratory Report

Report ID: S33330.01(01)
Generated on 08/31/2007

Report to

Attention: Mr. Clifford Yantz
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S33330.01-S33330.03
Project: GM MFD Grand Blanc
Collected Date: 08/23/2007
Submitted Date/Time: 08/23/2007 16:20
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RDL.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S33330.01	SS2-42	Soil	08/23/2007 12:40
S33330.02	SS2-21SW	Soil	08/23/2007 12:50
S33330.03	SS2-14WWW	Soil	08/23/2007 13:00

Confidential under FOIA
Shane Noreen
LFR
Aug 07, 2009 19:19

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S33330.01
Sample Tag: SS2-42
Collected Date/Time: 08/23/2007 12:40
Matrix: Soil
COC Reference: 036243

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/27/07 21:49	EMR		
Inorganics								
Total Solids	81	%	1	160.3	08/27/07 14:20	JRT		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH	83-32-9	I
Acenaphthylene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH	208-96-8	I
Anthracene	700	ug/kg	300	8270C	08/29/07 18:41	ARH	120-12-7	I
Benzo(a)anthracene	4,500	ug/kg	300	8270C	08/29/07 18:41	ARH	56-55-3	I
Benzo(a)pyrene	5,100	ug/kg	300	8270C	08/29/07 18:41	ARH	50-32-8	I
Benzo(b)fluoranthene	4,400	ug/kg	300	8270C	08/29/07 18:41	ARH	205-99-2	I
Benzo(k)fluoranthene	4,800	ug/kg	300	8270C	08/29/07 18:41	ARH	207-08-9	I
Benzo(ghi)perylene	2,600	ug/kg	300	8270C	08/29/07 18:41	ARH	191-24-2	I
Chrysene	5,000	ug/kg	300	8270C	08/29/07 18:41	ARH	218-01-9	I
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH	53-70-3	I
Fluoranthene	8,800	ug/kg	300	8270C	08/29/07 18:41	ARH	206-44-0	I
Fluorene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH	86-73-7	I
Indeno(1,2,3-cd)pyrene	2,600	ug/kg	300	8270C	08/29/07 18:41	ARH	193-39-5	I
Naphthalene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH	91-20-3	I
Phenanthrene	3,500	ug/kg	300	8270C	08/29/07 18:41	ARH	85-01-8	I
Pyrene	8,300	ug/kg	300	8270C	08/29/07 18:41	ARH	129-00-0	I
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH	91-57-6	I
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/29/07 18:41	ARH		I
Polynuclear Aromatics (Replicate 01)								
Acenaphthene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH	83-32-9	X
Acenaphthylene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH	208-96-8	X
Anthracene	800	ug/kg	500	8270C	08/30/07 17:16	ARH	120-12-7	X
Benzo(a)anthracene	4,200	ug/kg	500	8270C	08/30/07 17:16	ARH	56-55-3	X
Benzo(a)pyrene	4,500	ug/kg	500	8270C	08/30/07 17:16	ARH	50-32-8	X
Benzo(b)fluoranthene	4,000	ug/kg	500	8270C	08/30/07 17:16	ARH	205-99-2	X
Benzo(k)fluoranthene	4,400	ug/kg	500	8270C	08/30/07 17:16	ARH	207-08-9	X
Benzo(ghi)perylene	2,100	ug/kg	500	8270C	08/30/07 17:16	ARH	191-24-2	X
Chrysene	4,500	ug/kg	500	8270C	08/30/07 17:16	ARH	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH	53-70-3	X
Fluoranthene	7,700	ug/kg	500	8270C	08/30/07 17:16	ARH	206-44-0	X
Fluorene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH	86-73-7	X
Indeno(1,2,3-cd)pyrene	2,200	ug/kg	500	8270C	08/30/07 17:16	ARH	193-39-5	X
Naphthalene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH	91-20-3	X

I-Matrix interference with internal standard
X-Elevated reporting limit due to matrix interference

Analytical Laboratory Report

Lab Sample ID: S33330.01 (continued)
Sample Tag: SS2-42

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (Replicate 01) (continued)								
Phenanthrene	3,200	ug/kg	500	8270C	08/30/07 17:16	ARH	85-01-8	X
Pyrene	7,200	ug/kg	500	8270C	08/30/07 17:16	ARH	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	500	8270C	08/30/07 17:16	ARH		X

X-Elevated reporting limit due to matrix interference

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LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S33330.02
Sample Tag: SS2-21SW
Collected Date/Time: 08/23/2007 12:50
Matrix: Soil
COC Reference: 036243

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/27/07 12:00	PER		
Inorganics								
Total Solids	78	%	1	160.3	08/27/07 14:20	JRT		
Metals								
Arsenic	6.16	mg/kg	0.10	6020	08/27/07 15:18	PER	7440-38-2	

Confidential under FOIA
Shane Noreen
LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S33330.03
Sample Tag: SS2-14WWW
Collected Date/Time: 08/23/2007 13:00
Matrix: Soil
COC Reference: 036243

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	08/27/07 12:00	PER		
Inorganics								
Total Solids	86	%	1	160.3	08/27/07 14:20	JRT		
Metals								
Arsenic	39.5	mg/kg	0.10	6020	08/27/07 15:19	PER	7440-38-2	

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C.O.C. PAGE # 1 OF 1

J36243

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME	Cliff Yantz
COMPANY	O'Brien & Gere
ADDRESS	37000 Grand River
CITY	Farmington Hills
STATE	MI
ZIP CODE	48335
PHONE NO.	248-477-5701
FAX NO.	
P.O. NO.	
E-MAIL ADDRESS	
QUOTE NO.	

INVOICE TO

CONTACT NAME	☐ SAME
COMPANY	
ADDRESS	
CITY	
STATE	
ZIP CODE	
PHONE NO.	
FAX NO.	
P.O. NO.	

PROJECT NO./NAME: GM Grand Blanc MFD

SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER SL=SLUDGE WW=WASTEWATER O=OIL S=SOIL A=AIR L=LIQUID W=WASTE SD=SOLID M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	DATE (YEAR)	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	HNO$_3$	H$_2$SO$_4$	NaOH	MeOH	OTHER	PAHs	Arsenic	SPECIAL INSTRUCTIONS/NOTES
	7/23	13:40	SS2-42	S	1	X							X		
	7/23	12:50	SS2-21SW	S	1	X								X	
	7/23	13:00	SS2-14WWW	S	1	X								X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME	RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
[signature] O'Brien & Gere	[illegible]	[illegible]			
RECEIVED BY: SIGNATURE/ORGANIZATION [signature]			RECEIVED BY: SIGNATURE/ORGANIZATION		
RELINQUISHED BY: SIGNATURE/ORGANIZATION			SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS		
RECEIVED BY: SIGNATURE/ORGANIZATION			SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS		

NOTES: TEMP. ON ARRIVAL ______

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Analytical Laboratory Report

Report ID: S33395.01(01)
Generated on 09/05/2007

Report to

Attention: Mr. Clifford Yantz
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S33395.01-S33395.03
Project: GM MFD Grand Blanc
Collected Date: 08/29/2007
Submitted Date/Time: 08/29/2007 16:30
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S33395.01	SS2-20D-3	Soil	08/29/2007 10:00
S33395.02	SS2-24D-2	Soil	08/29/2007 10:40
S33395.03	SS2-14D-2	Soil	08/29/2007 11:30

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Analytical Laboratory Report

Lab Sample ID: S33395.01
Sample Tag: SS2-20D-3
Collected Date/Time: 08/29/2007 10:00
Matrix: Soil
COC Reference: 043932

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/30/07 12:00	JRT		
Inorganics								
Total Solids	88	%	1	160.3	08/31/07 15:38	WAR		
Metals								
Mercury	Not detected	mg/kg	0.050	7471A	08/30/07 16:20	JRT	7439-97-6	

Analytical Laboratory Report

Lab Sample ID: S33395.02
Sample Tag: SS2-24D-2
Collected Date/Time: 08/29/2007 10:40
Matrix: Soil
COC Reference: 043932

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	08/30/07 13:59	DLR		
Inorganics								
Total Solids	89	%	1	160.3	08/31/07 15:38	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	500	ug/kg	300	8270C	08/31/07 16:40	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/31/07 16:40	ARH	208-96-8	
Anthracene	1,000	ug/kg	300	8270C	08/31/07 16:40	ARH	120-12-7	
Benzo(a)anthracene	3,000	ug/kg	300	8270C	08/31/07 16:40	ARH	56-55-3	
Benzo(a)pyrene	3,400	ug/kg	300	8270C	08/31/07 16:40	ARH	50-32-8	
Benzo(b)fluoranthene	3,000	ug/kg	300	8270C	08/31/07 16:40	ARH	205-99-2	
Benzo(k)fluoranthene	3,200	ug/kg	300	8270C	08/31/07 16:40	ARH	207-08-9	
Benzo(ghi)perylene	1,900	ug/kg	300	8270C	08/31/07 16:40	ARH	191-24-2	
Chrysene	3,300	ug/kg	300	8270C	08/31/07 16:40	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/31/07 16:40	ARH	53-70-3	
Fluoranthene	6,600	ug/kg	300	8270C	08/31/07 16:40	ARH	206-44-0	
Fluorene	500	ug/kg	300	8270C	08/31/07 16:40	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,800	ug/kg	300	8270C	08/31/07 16:40	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/31/07 16:40	ARH	91-20-3	
Phenanthrene	4,400	ug/kg	300	8270C	08/31/07 16:40	ARH	85-01-8	
Pyrene	6,200	ug/kg	300	8270C	08/31/07 16:40	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/31/07 16:40	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/31/07 16:40	ARH		

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Analytical Laboratory Report

Lab Sample ID: S33395.03
Sample Tag: SS2-14D-2
Collected Date/Time: 08/29/2007 11:30
Matrix: Soil
COC Reference: 043932

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.0	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	09/05/07 12:00	SLS		
PNA Extraction	Completed			3550B	08/30/07 13:59	DLR		
Inorganics								
Total Solids	90	%	1	160.3	08/31/07 15:38	WAR		
Metals								
Arsenic	5.09	mg/kg	0.10	6020	09/05/07 15:02	SLS	7440-38-2	
Lead	35.2	mg/kg	1.0	6020	09/05/07 15:02	SLS	7439-92-1	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH	208-96-8	
Anthracene	600	ug/kg	300	8270C	08/31/07 16:17	ARH	120-12-7	
Benzo(a)anthracene	1,800	ug/kg	300	8270C	08/31/07 16:17	ARH	56-55-3	
Benzo(a)pyrene	2,100	ug/kg	300	8270C	08/31/07 16:17	ARH	50-32-8	
Benzo(b)fluoranthene	2,000	ug/kg	300	8270C	08/31/07 16:17	ARH	205-99-2	
Benzo(k)fluoranthene	1,600	ug/kg	300	8270C	08/31/07 16:17	ARH	207-08-9	
Benzo(ghi)perylene	1,200	ug/kg	300	8270C	08/31/07 16:17	ARH	191-24-2	
Chrysene	1,900	ug/kg	300	8270C	08/31/07 16:17	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH	53-70-3	
Fluoranthene	3,800	ug/kg	300	8270C	08/31/07 16:17	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	1,100	ug/kg	300	8270C	08/31/07 16:17	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH	91-20-3	
Phenanthrene	2,300	ug/kg	300	8270C	08/31/07 16:17	ARH	85-01-8	
Pyrene	3,500	ug/kg	300	8270C	08/31/07 16:17	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/31/07 16:17	ARH		

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LFR
Aug 07, 2009 19:19

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C.O.C. PAGE # ______ OF ______

043932

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yantz
COMPANY: O'Brien + Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO: 248-477-5701 FAX NO:
E-MAIL ADDRESS:
P.O. NO:
QUOTE NO:

INVOICE TO

CONTACT NAME:
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: FAX NO:

PROJECT NO./NAME: GM Grand Blanc MFD
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schmidt

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER SL=SLUDGE WW=WASTEWATER O=OIL S=SOIL A=AIR L=LIQUID W=WASTE SD=SOLID M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	DATE (YEAR 2007)	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# CONTAINERS	Mercury	Arsenic	Lead	PAHs
33395.01	8/29	10:00	552-20D-3	S	1	X			
.02	8/29	10:40	552-24D-2	S	1				X
.03	8/29	11:30	552-14D-2	S	1		X	X	X

SPECIAL INSTRUCTIONS/NOTES:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: [signature] O'Brien + Gere DATE: 8/29/07 TIME: 13:30
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature] DATE: 8/29/07 TIME: 1330
RELINQUISHED BY: SIGNATURE/ORGANIZATION: [signature] DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: Richard Richards DATE: 8-29-07 TIME: 16:30
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

SEAL NO: SEAL INTACT YES NO INITIALS
SEAL NO: SEAL INTACT YES NO INITIALS
NOTES:
TEMP. ON ARRIVAL: 4.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Analytical Laboratory Report

Supplemental Report

Report ID: S33772.01(03)
Generated on 10/12/2007
Replaces report S33772.01(02) generated on 10/10/2007

Report to

Attention: Mr. Clifford Yantz
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S33772.01-S33772.24
Project: GM MFD Grand Blanc
Collected Date: 09/28/2007
Submitted Date/Time: 09/28/2007 15:15
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Violetta F. Murshak
Laboratory Director

Merit Laboratories, Inc.

Analytical Laboratory Report

Supplemental Report

Sample Summary (24 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S33772.01	SS2-15D-3	Soil	09/28/2007 09:40
S33772.02	SS2-15D-5	Soil	09/28/2007 09:45
S33772.03	SS2-14D-3	Soil	09/28/2007 10:00
S33772.04	SS2-14D-4	Soil	09/28/2007 10:05
S33772.05	SS2-14D-5	Soil	09/28/2007 10:10
S33772.06	SS2-14SSS	Soil	09/28/2007 10:20
S33772.07	SS2-03S	Soil	09/28/2007 10:30
S33772.08	SS2-03SS	Soil	09/28/2007 10:40
S33772.09	SS2-03E	Soil	09/28/2007 10:50
S33772.10	SS2-03EE	Soil	09/28/2007 11:05
S33772.11	SS2-24D-3	Soil	09/28/2007 11:50
S33772.12	Dup-10	Soil	09/28/2007
S33772.13	SS2-24D-5	Soil	09/28/2007 11:55
S33772.14	SS2-24D-6	Soil	09/28/2007 12:00
S33772.15	SS2-46	Soil	09/28/2007 12:05
S33772.16	SS2-46S	Soil	09/28/2007 12:10
S33772.17	SS2-46N	Soil	09/28/2007 12:15
S33772.18	SS2-46W	Soil	09/28/2007 12:20
S33772.19	SS2-43	Soil	09/28/2007 12:30
S33772.20	Dup-11	Soil	09/28/2007
S33772.21	SS2-44	Soil	09/28/2007 12:40
S33772.22	SS2-45	Soil	09/28/2007 12:50
S33772.23	SS2-21WWW	Soil	09/28/2007 13:00
S33772.24	SS2-21NW	Soil	09/28/2007 13:05

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Shane Noreen
LFR
Aug 07, 2009 19:19

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.01
Sample Tag: SS2-15D-3
Collected Date/Time: 09/28/2007 09:40
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/01/07 23:56	EMR		
Inorganics								
Total Solids	96	%	1	160.3	10/01/07 11:00	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/03/07 18:21	ARH		

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.02
Sample Tag: SS2-15D-5
Collected Date/Time: 09/28/2007 09:45
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.03
Sample Tag: SS2-14D-3
Collected Date/Time: 09/28/2007 10:00
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/01/07 23:56	EMR		
Inorganics								
Total Solids	90	%	1	160.3	10/01/07 11:00	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/03/07 18:44	ARH		

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.04
Sample Tag: SS2-14D-4
Collected Date/Time: 09/28/2007 10:05
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.05
Sample Tag: SS2-14D-5
Collected Date/Time: 09/28/2007 10:10
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.06
Sample Tag: SS2-14SSS
Collected Date/Time: 09/28/2007 10:20
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	94	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	2.26	mg/kg	0.10	6020	10/03/07 14:11	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.07
Sample Tag: SS2-03S
Collected Date/Time: 09/28/2007 10:30
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	91	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Lead	164	mg/kg	1.0	6020	10/03/07 14:12	PER	7439-92-1	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.08
Sample Tag: SS2-03SS
Collected Date/Time: 09/28/2007 10:40
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.09
Sample Tag: SS2-03E
Collected Date/Time: 09/28/2007 10:50
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	94	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Lead	142	mg/kg	1.0	6020	10/03/07 14:13	PER	7439-92-1	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.10
Sample Tag: SS2-03EE
Collected Date/Time: 09/28/2007 11:05
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.11
Sample Tag: SS2-24D-3
Collected Date/Time: 09/28/2007 11:50
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/01/07 23:56	EMR		
Inorganics								
Total Solids	89	%	1	160.3	10/01/07 11:00	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	4,400	ug/kg	500	8270C	10/03/07 23:01	ARH	83-32-9	X
Acenaphthylene	Not detected	ug/kg	500	8270C	10/03/07 23:01	ARH	208-96-8	X
Anthracene	6,600	ug/kg	500	8270C	10/03/07 23:01	ARH	120-12-7	X
Benzo(a)anthracene	14,700	ug/kg	500	8270C	10/03/07 23:01	ARH	56-55-3	X
Benzo(a)pyrene	15,000	ug/kg	500	8270C	10/03/07 23:01	ARH	50-32-8	X
Benzo(b)fluoranthene	16,900	ug/kg	500	8270C	10/03/07 23:01	ARH	205-99-2	X
Benzo(k)fluoranthene	13,200	ug/kg	500	8270C	10/03/07 23:01	ARH	207-08-9	X
Benzo(ghi)perylene	4,500	ug/kg	500	8270C	10/03/07 23:01	ARH	191-24-2	X
Chrysene	15,400	ug/kg	500	8270C	10/03/07 23:01	ARH	218-01-9	X
Dibenzo(ah)anthracene	2,100	ug/kg	500	8270C	10/03/07 23:01	ARH	53-70-3	X
Fluoranthene	37,400	ug/kg	500	8270C	10/03/07 23:01	ARH	206-44-0	X
Fluorene	4,300	ug/kg	500	8270C	10/03/07 23:01	ARH	86-73-7	X
Indeno(1,2,3-cd)pyrene	5,000	ug/kg	500	8270C	10/03/07 23:01	ARH	193-39-5	X
Naphthalene	1,800	ug/kg	500	8270C	10/03/07 23:01	ARH	91-20-3	X
Phenanthrene	31,800	ug/kg	500	8270C	10/03/07 23:01	ARH	85-01-8	X
Pyrene	35,100	ug/kg	500	8270C	10/03/07 23:01	ARH	129-00-0	X
2-Methylnaphthalene	1,400	ug/kg	500	8270C	10/03/07 23:01	ARH	91-57-6	X
1-Methylnaphthalene	900	ug/kg	500	8270C	10/03/07 23:01	ARH		X

X-Elevated reporting limit due to matrix interference

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.12
Sample Tag: Dup-10
Collected Date/Time: 09/28/2007 :
Matrix: Soil
COC Reference: 043931

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/01/07 23:56	EMR		
Inorganics								
Total Solids	85	%	1	160.3	10/01/07 11:00	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	83-32-9	XI
Acenaphthylene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	208-96-8	XI
Anthracene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	120-12-7	XI
Benzo(a)anthracene	800	ug/kg	400	8270C	10/03/07 22:38	ARH	56-55-3	XI
Benzo(a)pyrene	700	ug/kg	400	8270C	10/03/07 22:38	ARH	50-32-8	XI
Benzo(b)fluoranthene	1,000	ug/kg	400	8270C	10/03/07 22:38	ARH	205-99-2	XI
Benzo(k)fluoranthene	800	ug/kg	400	8270C	10/03/07 22:38	ARH	207-08-9	XI
Benzo(ghi)perylene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	191-24-2	XI
Chrysene	1,100	ug/kg	400	8270C	10/03/07 22:38	ARH	218-01-9	XI
Dibenzo(ah)anthracene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	53-70-3	XI
Fluoranthene	1,400	ug/kg	400	8270C	10/03/07 22:38	ARH	206-44-0	XI
Fluorene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	86-73-7	XI
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	193-39-5	XI
Naphthalene	Not detected	ug/kg	400	8270C	10/03/07 22:38	ARH	91-20-3	XI
Phenanthrene	500	ug/kg	400	8270C	10/03/07 22:38	ARH	85-01-8	XI
Pyrene	1,200	ug/kg	400	8270C	10/03/07 22:38	ARH	129-00-0	XI
2-Methylnaphthalene	500	ug/kg	400	8270C	10/03/07 22:38	ARH	91-57-6	XI
1-Methylnaphthalene	400	ug/kg	400	8270C	10/03/07 22:38	ARH		XI

X-Elevated reporting limit due to matrix interference I-Matrix interference with internal standard

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.13
Sample Tag: SS2-24D-5
Collected Date/Time: 09/28/2007 11:55
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/05/07 12:43	DLR		
Inorganics								
Total Solids	91	%	1	160.3	10/05/07 13:56	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	4,800	ug/kg	500	8270C	10/08/07 19:13	ARH	83-32-9	XI
Acenaphthylene	Not detected	ug/kg	500	8270C	10/08/07 19:13	ARH	208-96-8	XI
Anthracene	8,900	ug/kg	500	8270C	10/08/07 19:13	ARH	120-12-7	XI
Benzo(a)anthracene	19,200	ug/kg	500	8270C	10/08/07 19:13	ARH	56-55-3	XI
Benzo(a)pyrene	20,400	ug/kg	500	8270C	10/08/07 19:13	ARH	50-32-8	XI
Benzo(b)fluoranthene	26,000	ug/kg	500	8270C	10/08/07 19:13	ARH	205-99-2	XI
Benzo(k)fluoranthene	20,800	ug/kg	500	8270C	10/08/07 19:13	ARH	207-08-9	XI
Benzo(ghi)perylene	4,400	ug/kg	500	8270C	10/08/07 19:13	ARH	191-24-2	XI
Chrysene	19,000	ug/kg	500	8270C	10/08/07 19:13	ARH	218-01-9	XI
Dibenzo(ah)anthracene	Not detected	ug/kg	500	8270C	10/08/07 19:13	ARH	53-70-3	XI
Fluoranthene	58,300	ug/kg	500	8270C	10/08/07 19:13	ARH	206-44-0	XI
Fluorene	6,000	ug/kg	500	8270C	10/08/07 19:13	ARH	86-73-7	XI
Indeno(1,2,3-cd)pyrene	5,200	ug/kg	500	8270C	10/08/07 19:13	ARH	193-39-5	XI
Naphthalene	13,700	ug/kg	500	8270C	10/08/07 19:13	ARH	91-20-3	XI
Phenanthrene	51,100	ug/kg	500	8270C	10/08/07 19:13	ARH	85-01-8	XI
Pyrene	54,700	ug/kg	500	8270C	10/08/07 19:13	ARH	129-00-0	XI
2-Methylnaphthalene	3,600	ug/kg	500	8270C	10/08/07 19:13	ARH	91-57-6	XI
1-Methylnaphthalene	2,400	ug/kg	500	8270C	10/08/07 19:13	ARH		XI

X-Elevated reporting limit due to matrix interference I-Matrix interference with internal standard

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.14
Sample Tag: SS2-24D-6
Collected Date/Time: 09/28/2007 12:00
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/10/07 11:57	DLR		
Inorganics								
Total Solids	84	%	1	160.3	10/11/07 12:12	WAR		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/11/07 14:13	ARH		

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.15
Sample Tag: SS2-46
Collected Date/Time: 09/28/2007 12:05
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	81	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	91.8	mg/kg	0.10	6020	10/03/07 14:15	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.16
Sample Tag: SS2-46S
Collected Date/Time: 09/28/2007 12:10
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	82	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	59.4	mg/kg	0.10	6020	10/03/07 14:16	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.17
Sample Tag: SS2-46N
Collected Date/Time: 09/28/2007 12:15
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	87	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	45.2	mg/kg	0.10	6020	10/03/07 14:20	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.18
Sample Tag: SS2-46W
Collected Date/Time: 09/28/2007 12:20
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/09/07 12:00	PER		
Inorganics								
Total Solids	80	%	1	160.3	10/05/07 13:56	WAR		
Metals								
Arsenic	48.1	mg/kg	0.10	6020	10/09/07 16:22	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.19
Sample Tag: SS2-43
Collected Date/Time: 09/28/2007 12:30
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/01/07 23:56	EMR		
Inorganics								
Total Solids	84	%	1	160.3	10/01/07 11:00	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	83-32-9	XI
Acenaphthylene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	208-96-8	XI
Anthracene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	120-12-7	XI
Benzo(a)anthracene	1,300	ug/kg	500	8270C	10/03/07 23:24	ARH	56-55-3	XI
Benzo(a)pyrene	1,100	ug/kg	500	8270C	10/03/07 23:24	ARH	50-32-8	XI
Benzo(b)fluoranthene	1,600	ug/kg	500	8270C	10/03/07 23:24	ARH	205-99-2	XI
Benzo(k)fluoranthene	1,200	ug/kg	500	8270C	10/03/07 23:24	ARH	207-08-9	XI
Benzo(ghi)perylene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	191-24-2	XI
Chrysene	1,700	ug/kg	500	8270C	10/03/07 23:24	ARH	218-01-9	XI
Dibenzo(ah)anthracene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	53-70-3	XI
Fluoranthene	2,300	ug/kg	500	8270C	10/03/07 23:24	ARH	206-44-0	XI
Fluorene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	86-73-7	XI
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	193-39-5	XI
Naphthalene	Not detected	ug/kg	500	8270C	10/03/07 23:24	ARH	91-20-3	XI
Phenanthrene	800	ug/kg	500	8270C	10/03/07 23:24	ARH	85-01-8	XI
Pyrene	2,000	ug/kg	500	8270C	10/03/07 23:24	ARH	129-00-0	XI
2-Methylnaphthalene	700	ug/kg	500	8270C	10/03/07 23:24	ARH	91-57-6	XI
1-Methylnaphthalene	500	ug/kg	500	8270C	10/03/07 23:24	ARH		XI

X-Elevated reporting limit due to matrix interference I-Matrix interference with internal standard

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.20
Sample Tag: Dup-11
Collected Date/Time: 09/28/2007 :
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	89	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	6.35	mg/kg	0.10	6020	10/03/07 14:21	PER	7440-38-2	

Merit Laboratories, Inc.

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.21
Sample Tag: SS2-44
Collected Date/Time: 09/28/2007 12:40
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

Merit Laboratories, Inc.

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.22
Sample Tag: SS2-45
Collected Date/Time: 09/28/2007 12:50
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				09/28/07 16:30	PCS		

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.23
Sample Tag: SS2-21WWW
Collected Date/Time: 09/28/2007 13:00
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	86	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	7.14	mg/kg	0.10	6020	10/03/07 14:22	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33772.24
Sample Tag: SS2-21NW
Collected Date/Time: 09/28/2007 13:05
Matrix: Soil
COC Reference: 043930

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.5	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/03/07 12:00	PER		
Inorganics								
Total Solids	82	%	1	160.3	10/01/07 11:00	DJS		
Metals								
Arsenic	28.7	mg/kg	0.10	6020	10/03/07 14:30	PER	7440-38-2	

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C.O.C. PAGE # 1 OF 2

043931

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yuntz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5201 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	OTHER	PAHs	Arsenic	Lead	SPECIAL INSTRUCTIONS/NOTES
337720	9/28	9:40	SS2-15D-3	S	1	X						XX			
.02		9:45	SS2-15D-5	S	1	X						XX			hold sample
.03		1000	SS2-14D-3	S	1	X						XX			
.04		1005	SS2-14D-4	S	1	X						XX			hold
.05		1010	SS2-14D-5	S	1	X						XX			hold
.06		1020	SS2-14SSS	S	1	X							X		
.07		1030	SS2-03S	S	1	X							X	X	
.08		1040	SS2-03SS	S	1	X							X	X	hold
.09		10:50	SS2-03E	S	1	X							X	X	
.10		1105	SS2-03EE	S	1	X								X	hold
.11		1150	SS2-24D-3	S	1							XX			
.12			DUP-10	S	1							XX			

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	O'Brien & Gere	9/28	14:10
RECEIVED BY: SIGNATURE/ORGANIZATION		9/28	1410
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		9/28/07	1515
RECEIVED BY: SIGNATURE/ORGANIZATION		9-28-07	1515

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS NOTES: TEMP. ON ARRIVAL 4.5
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

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C.O.C. PAGE # 2 OF 2

043930

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5901 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kwin Schneider

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	Containers & Preservatives: NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PAHs	Arsenic	Lead	SPECIAL INSTRUCTIONS/NOTES
33712.13	9/28	1155	SS2-24D-5	S	1	X							X			hold
.14		1200	SS2-24D-6	S	1	X							X			hold
.15		12:05	SS2-46	S	1	X								X	X	
.16		1210	SS2-46 S	S	1	X								X	X	
.17		1215	SS2-46 N	S	1	X								X	X	
.18		1220	SS2-46 W	S	1	X								X	X	hold
.19		1230	SS2-43	S	1	X							X			
.20			Dup-11	S	1	X								X	X	
.21		1240	SS2-44	S	1	X							X			hold
.22		1250	SS2-45	S	1	X							X			hold
.23		1300	SS2-21 WWW	S	1	X								X	X	
.24	↓	1305	SS2-21 NW	S	1	X								X	X	

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	O'Brien + Gere	9/28	14:10
RECEIVED BY: SIGNATURE/ORGANIZATION		9/28	1410
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		9/28/07	1575
RECEIVED BY: SIGNATURE/ORGANIZATION		9-28-07	1575

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS | NOTES: TEMP. ON ARRIVAL 4.5

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Analytical Laboratory Report

Supplemental Report

Report ID: S33863.01(02)
Generated on 10/15/2007
Replaces report S33863.01(01) generated on 10/10/2007

Report to

Attention: Mr. Clifford Yantz
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S33863.01-S33863.06
Project: GM MFD Grand Blanc
Collected Date: 10/05/2007
Submitted Date/Time: 10/05/2007 13:30
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Violetta F. Murshak
Laboratory Director

Merit Laboratories, Inc.

Analytical Laboratory Report

Supplemental Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S33863.01	SS2-46SS	Soil	10/05/2007 08:30
S33863.02	SS2-46SSS	Soil	10/05/2007 08:40
S33863.03	SS2-46NN	Soil	10/05/2007 08:50
S33863.04	SS2-46WW	Soil	10/05/2007 09:00
S33863.05	SS2-47	Soil	10/05/2007 09:10
S33863.06	SS2-47NW	Soil	10/05/2007 09:20

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33863.01
Sample Tag: SS2-46SS
Collected Date/Time: 10/05/2007 08:30
Matrix: Soil
COC Reference: 040431

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.7	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/09/07 12:00	PER		
Inorganics								
Total Solids	71	%	1	160.3	10/08/07 13:00	DJS		
Metals								
Arsenic	26.7	mg/kg	0.10	6020	10/09/07 16:23	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33863.02
Sample Tag: SS2-46SSS
Collected Date/Time: 10/05/2007 08:40
Matrix: Soil
COC Reference: 040431

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.7	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/15/07 12:00	PER		
Inorganics								
Total Solids	84	%	1	160.3	10/11/07 12:12	WAR		
Metals								
Arsenic	21.0	mg/kg	0.10	6020	10/15/07 15:20	PER	7440-38-2	

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33863.03
Sample Tag: SS2-46NN
Collected Date/Time: 10/05/2007 08:50
Matrix: Soil
COC Reference: 040431

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.7	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/09/07 12:00	PER		
Inorganics								
Total Solids	77	%	1	160.3	10/08/07 13:00	DJS		
Metals								
Arsenic	22.4	mg/kg	0.10	6020	10/09/07 16:24	PER	7440-38-2	

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33863.04
Sample Tag: SS2-46WW
Collected Date/Time: 10/05/2007 09:00
Matrix: Soil
COC Reference: 040431

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.7	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/15/07 12:00	PER		
Inorganics								
Total Solids	81	%	1	160.3	10/11/07 12:12	WAR		
Metals								
Arsenic	29.7	mg/kg	0.10	6020	10/15/07 15:22	PER	7440-38-2	

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LFR
Aug 07, 2009 19:19

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Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33863.05
Sample Tag: SS2-47
Collected Date/Time: 10/05/2007 09:10
Matrix: Soil
COC Reference: 040431

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.7	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/09/07 12:00	PER		
Inorganics								
Total Solids	58	%	1	160.3	10/08/07 13:00	DJS		
Metals								
Arsenic	32.8	mg/kg	0.10	6020	10/09/07 16:26	PER	7440-38-2	

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S33863.06
Sample Tag: SS2-47NW
Collected Date/Time: 10/05/2007 09:20
Matrix: Soil
COC Reference: 040431

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.7	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/15/07 12:00	PER		
Inorganics								
Total Solids	79	%	1	160.3	10/11/07 12:12	WAR		
Metals								
Arsenic	24.1	mg/kg	0.10	6020	10/15/07 15:23	PER	7440-38-2	

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C.O.C. PAGE # 1 OF 1

040431

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Cliff Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: Kevin Schneider ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCL	HNO_3	SO_4	NaOH	NaS_2O_3	OTHER	Arsenic	SPECIAL INSTRUCTIONS/NOTES
33863.01	10/5	8:30	SS2-46 SS	S	1	X							X	
.02	↓	8:40	SS2-46 SSS	S	1	X							X	hold sample
.03		8:50	SS2-46 NN	S	1	X							X	
.04		9:00	SS2-46 WW	S	1	X							X	hold sample
.05		9:10	SS2-47	S	1	X							X	
.06	↓	9:20	SS2-47 NW	S	1	X							X	hold sample

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	O'Brien & Gere	10/5	10:30
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit	10-5-07	1330
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit	10-5-07	1330
RECEIVED BY: SIGNATURE/ORGANIZATION	Barbara Burbadon	10-5-07	13:30

SEAL NO.: SEAL INTACT YES ☐ NO ☐ INITIALS:
SEAL NO.: SEAL INTACT YES ☐ NO ☐ INITIALS:

NOTES: TEMP. ON ARRIVAL 4.7

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Analytical Laboratory Report

Report ID: S34011.01(01)
Generated on 10/18/2007

Report to

Attention: Clifford Yantz/ Kevin Schneider
O'Brien & Gere Engineers
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX: 248-477-5962
Email: YantzCS@obg.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S34011.01-S34011.04
Project: GM MFD Grand Blanc
Collected Date: 10/16/2007
Submitted Date/Time: 10/17/2007 08:00
Sampled by: Kevin Schneider
P.O. #: 10710409EST

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Violetta F. Murshak
Laboratory Director

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Shane Noreen
LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Sample Summary (4 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S34011.01	SS2-47NWNW	Soil	10/16/2007 08:10
S34011.02	SS2-46WWW	Soil	10/16/2007 08:20
S34011.03	SS2-48	Soil	10/16/2007 08:30
S34011.04	SS2-48S	Soil	10/16/2007 08:40

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LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S34011.01
Sample Tag: SS2-47NWNW
Collected Date/Time: 10/16/2007 08:10
Matrix: Soil
COC Reference: 043928

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.9	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/18/07 12:00	PER		
Inorganics								
Total Solids	89	%	1	160.3	10/17/07 14:53	WAR		
Metals								
Arsenic	6.15	mg/kg	0.10	6020	10/18/07 13:06	PER	7440-38-2	

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Shane Noreen
LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S34011.02
Sample Tag: SS2-46WWW
Collected Date/Time: 10/16/2007 08:20
Matrix: Soil
COC Reference: 043928

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.9	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/18/07 12:00	PER		
Inorganics								
Total Solids	94	%	1	160.3	10/17/07 14:53	WAR		
Metals								
Arsenic	4.24	mg/kg	0.10	6020	10/18/07 13:08	PER	7440-38-2	

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Shane Noreen
LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S34011.03
Sample Tag: SS2-48
Collected Date/Time: 10/16/2007 08:30
Matrix: Soil
COC Reference: 043928

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.9	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3050B	10/18/07 12:00	PER		
Inorganics								
Total Solids	84	%	1	160.3	10/17/07 14:53	WAR		
Metals								
Arsenic	28.0	mg/kg	0.10	6020	10/18/07 13:09	PER	7440-38-2	

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Shane Noreen
LFR
Aug 07, 2009 19:19

Analytical Laboratory Report

Lab Sample ID: S34011.04
Sample Tag: SS2-48S
Collected Date/Time: 10/16/2007 08:40
Matrix: Soil
COC Reference: 043928

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz. Glass	None	Yes	4.9	IR

Analysis	Results	Units	RDL	Method	Run Date/Time	Analyst	CAS #	Flags
Other / Misc.								
Hold until notified	Completed				10/17/07 17:00	PCS		

Merit Laboratories, Inc.
2680 East Lansing Dr. East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # _____ OF _____

043928

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME	Cliff Yantz / Kevin Schneider
COMPANY	O'Brien & Gere
ADDRESS	37000 Grand River
CITY	Farmington Hills
STATE	MI
ZIP CODE	48335
PHONE NO.	248-477-5701
FAX NO.	
P.O. NO.	
E-MAIL ADDRESS	
QUOTE NO.	

INVOICE TO

CONTACT NAME	☐ SAME
COMPANY	
ADDRESS	
CITY	
STATE	
ZIP CODE	
PHONE NO.	
FAX NO.	
P.O. NO.	

PROJECT NO./NAME	GM MFD Grand Blanc
SAMPLER(S) - PLEASE PRINT/SIGN NAME	Kevin Schneider
TURNAROUND TIME REQUIRED	☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED	☒ STANDARD ☐ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR 2007 DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	NaOH	OTHER	Arsenic	SPECIAL INSTRUCTIONS/NOTES
34011.01	10/16	8:10	SS2-47 NW NW	S	1	X							X	
.02	10/16	8:20	SS2-46 WWW	S	1	X							X	
.03	10/16	8:30	SS2-48	S	1	X							X	
.04	10/16	8:40	SS2-48S	S	1	X							X	hold

RELINQUISHED BY: SIGNATURE/ORGANIZATION	O'Brien + Gere	10/16	1630	RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE / TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		10/16	1630	RECEIVED BY: SIGNATURE/ORGANIZATION Barbara Richardson	10-17-09 8:00
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐ INITIALS
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	SEAL NO.	SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.9

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE