Delineation of Subsurface Petroleum Hydrocarbon Contamination

Horse Heaven Hills Travel Plaza
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1.0 INTRODUCTION

In January 2014, Blue Mountain Environmental and Consulting (BMEC) Company, Inc., from Waitsburg, Washington was contacted by Mr. Brian Rogers, the previous property owner, regarding performing a subsurface investigation to delineate petroleum hydrocarbon (PHC) contamination in soils related to seven diesel fuel dispensers at the Horse Heaven Hills Truck Stop in Prosser, Benton County, Washington. The subject property is locally known as the Horse Heaven Hills Truck Plaza located at 101 Merlot Drive in Prosser, Washington 99350 (Site). This report details the findings of a subsurface investigation performed in attempt to further delineate the PHC contamination in the site soils during field activities performed in March and April 2014 at the Site. A copy of the Work Plan prepared, prior to this subsurface investigation is included as **Appendix A**.

1.1 Site Description

A Site Location Map is included as **Figure 1.** The 3.92-acre property is approximately 720 feet above sea level and located in Township 9 North, Range 24 East, Section 35 of Benton County, Washington of the Willamette Meridian. The Site surface is relatively flat, sloping slightly to the south-southeast. The Site has one 5,640-square foot commercial building constructed in 1995, currently under renovation by the new property owner, Powell Christensen, Inc., a petroleum distributor headquartered in Grandview, Washington. A Shell gasoline station also owned and operated by Powell Christensen, Inc. and used for refueling standard passenger vehicles is located on the west side of the commercial building. The remainder of the property is covered with asphalt and/or concrete without any mature vegetation present, besides limited landscaping along the north and west perimeter of the site. No standing water exists on the property, which is located approximately one mile north of the Yakima River.

1.2 Site History

A limited site investigation was performed at the Site by BMEC personnel on September 18, 2013 and the results of that site investigation indicated that PHC contaminated soil existed beneath several of the truck stop (east side of commercial building) diesel fuel dispensers at concentrations exceeding Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Cleanup Levels. The depth of the PHC contamination beneath the diesel fuel dispensers was observed to be a minimum of one foot below surface grade (bsg) during the September 2013 site investigation. Depths exceeding one foot bsg were inaccessible at that time due to the presence of the diesel fuel pump islands and fuel dispensers.

2.0 FIELD ACTIVITIES AND METHODOLOGY

From mid-February through early March 2014, the old canopy above the truck plaza diesel fuel dispensers was removed by Cubby Enterprises, Inc. (Cubby). The removal of the canopy was essential to guaranty the safety of the workers during the cleanup project. Photographs of the canopy removal activities are included in **Appendix B**. Underground utility locates were conducted in early March 2014, prior to initiation of any subsurface activities.

Subsequent to canopy removal, BMEC personnel supervised the following onsite activities: diesel fuel dispenser and pump island removal, asphalt and concrete removal, soil excavation and field screening for petroleum-contaminated soil (PCS), soil sampling for laboratory analysis, observation well sampling, and surface water (i.e., pooled groundwater) sampling. The BMEC supervised cleanup activities occurred from March 10 through April 14, 2014 and are described in detail in the following text. Photographs of the BMEC supervised activities are included in **Appendix B**.

A pair of clean Nitrile gloves was donned prior to collection of each soil and water sample. All stockpile soil samples (SP) were obtained from approximately 0.25 feet beneath the surface of the stockpiled soil and placed in a clean 4-ounce glass jar with little to no head space. All soil sidewall samples (SW), tank pit samples (TP), and soil samples obtained from the base of the diesel fuel dispensers (SS), were obtained from approximately 8 feet bsg and placed in a clean 4-ounce glass jar with little to no head space, as well as a 5 to 10 microgram aliquot of each soil sample being obtained via the 5035A field sampling methodology involving field preservation with methanol and three 40-milliliter (ml) Environmental Protection Agency (EPA) vials.

Water samples 3-12-MW1 and 3-12-MW4 were obtained from observation wells via lowering a submersible pump with connective tubing into each well to pump the groundwater to the surface. Prior to use in successive wells, the pump was decontaminated by pumping a soapy water solution followed by a potable water rinse, through the pump. All tubing was discarded and replaced with clean tubing, prior to use in successive wells. Approximately three well volumes were purged from each observation well and containerized in one 55-gallon drum that was properly labeled and sealed. Less than 55 gallons total of water were removed from both wells during the purging process. All well pump decontamination water was containerized in the same 55-gallon drum.

Water sample 3-12-E1 was obtained by entering the excavation and lowering the sample container beneath the water surface and filling each container. Containers for both water samples obtained from the observation wells (3-12-MW1 and 3-12-MW4) consisted of two 1-liter amber glass jars without preservative, two 1-liter amber glass jars with hydrochloric acid (HCl) preservative, and two 40-ml vials preserved with HCl. All 40-ml vials were filled with water assuring no headspace. Containers for water sample 3-12-E1 consisted of two 1-liter amber glass jars without preservative and two 1-liter amber jars with HCl preservative.

Immediately subsequent to collection, all soil and water samples were properly sealed, labeled, and placed on ice in a cooler. All samples were accompanied with proper chain-of-custody and shipped overnight to OnSite Environmental Inc (OnSite) Laboratories in Redmond, Washington for analyses described below in Section 2.12.

2.1 March 10, 2014 Field Activities

BMEC personnel and subcontractor Cubby arrived at the Site to begin removal of the asphalt and concrete in the vicinity of the diesel fuel dispenser islands. Approximately 35 gallons of diesel fuel was pumped out of the fuel lines, prior to initiation of any excavation and placed in a secured 55-gallon drum. A track hoe was used to remove the asphalt and concrete overlying the subsurface soils. All excavated material (concrete and asphalt) was then loaded into the bucket of a front-end loader and temporarily stockpiled east of the former diesel fuel dispensers. A plastic liner was placed beneath the stockpiled concrete and asphalt.

2.2 March 11, 2014 Field Activities

BMEC personnel supervised while Cubby began removal of the diesel fuel dispenser islands, subsurface soils, and appurtenances associated with the diesel fuel dispenser islands including underground piping (fuel lines). A track hoe was used to remove the asphalt and concrete overlying the subsurface soils. All excavated material (concrete, asphalt, and piping) was then loaded into the bucket of a front-end loader and temporarily stockpiled east of the former diesel fuel dispenser islands at the previously described staging area (see photographs – **Appendix B**). All excavated material (clean soil, PCS, piping, and wiring) was placed on top of plastic sheeting and all soil was covered with plastic sheeting, as well. Clean soil and PCS was segregated via field screening methodology which consisted of visual assessment (staining) and olfactory odor assessment. Soil stockpile samples 03-11-SP-1 through 03-11-SP-6 were collected for laboratory analysis. Removal of the seven concrete pillars providing the foundation for the former canopy was initiated.

2.3 March 12, 2014 Field Activities

BMEC personnel supervised while Cubby continued removal of the concrete footings of the former canopy. Continued excavation of clean soil and PCS occurred, as well. The clean soil and PCS were staged in segregated stockpiles, as previously described. Soil stockpile samples 03-12-SP-7 through 03-12-SP-12 were collected for laboratory analysis. Water samples 3-12-MW1 and 3-12-MW4 were collected from observation wells which are located on **Figure 2**. A third water sample (3-12-E1) was obtained from standing water that had accumulated in the excavation pit and is presumed to be a result of groundwater entering the excavation. The location from where 3-12-E1 was collected is illustrated on **Figure 2**.

2.4 March 13, 2014 Field Activities

BMEC personnel supervised while Cubby completed removal of the concrete footings of the former canopy. Excavation of clean soil and PCS continued. The concrete, clean soil, and PCS were staged in segregated stockpiles, as previously described. Soil samples 03-13-SS1 through 03-13-SS14 were collected for laboratory analysis from the bottom of the diesel fuel pump dispenser excavation pit. The locations of the fourteen soil samples are illustrated on **Figure 2**. Groundwater was observed at an approximate depth of 8 to 8.5 feet bsg during field activities.

2.5 March 14, 2014 Field Activities

BMEC personnel supervised while Cubby continued excavation of clean soil and PCS. Underground piping and wiring associated with the UST system was excavated and stockpiled, when encountered. The clean soil, PCS, piping + wiring were staged in segregated stockpiles, as previously described. Miscellaneous activities included the following: lining two onsite storm drains with absorbent pads, erecting a chain-link fence around the perimeter of the excavation pit, investigating obvious diesel contamination seeping into the diesel fuel dispenser excavation pit from the adjoining USTs to the north, and discussing the situation with Mr. Brandon Christensen, which resulted in removing approximately 2200 gallons (total) of diesel from the two USTs by General Transport, a fuel transporter owned and operated by Powell Christensen, Inc. The decision was also made to remove the two tanks to obtain better access to the contaminated soils below and around the two tanks.

2.6 March 17, 2014 Field Activities

Ecology employees Krystal Rodriguez (Tanks Program) and Valerie Bound (Toxics Cleanup Program – Central Region Coordinator) visited the Site. During her Site visit, Ms. Bound agreed that soil excavation to the east, south, and west was sufficient and that microbial in-situ remediation would be an acceptable approach for addressing the diesel fuel-related PHCs remaining in the subsurface.

BMEC personnel supervised while Cubby continued excavation of the concrete apron above both USTs. Excavation and stockpiling of clean soil and PCS in the vicinity of the USTs continued. Standing water was noted rising to an approximate depth of 6.5 feet bsg, subsequent to removal of the south tank from the subsurface. Ultimately, both USTs were removed from ground and set aside and secured. Both USTs appeared in good condition upon inspection subsequent to removal from the subsurface.

After further discussions with Mr. Christensen, the decision was made not to reuse the old tanks, but to replace them with two larger tanks and also to install a third tank for diesel exhaust fluid (DEF) product, and all cost for these updates would be covered by Powell Christensen, Inc.

BMEC personal continued with the subsequent decommissioning and scrapping of the two old tanks for Powell Christensen, Inc.

2.7 March 18, 2014 Field Activities

BMEC personnel supervised while Cubby continued soil excavation and stockpiling (clean soil and PCS). Both decommissioned USTs were removed from site and hauled to Pacific Recycling, in Pasco, Washington. Copies of the UST recycling documentation for both tanks is included in **Appendix C**. Field screening identified additional PCS in an area southwest of the tank excavation which was ultimately removed and stockpiled in the staging area as described previously. Additional plastic was placed atop the added volume of clean soil and PCS.

2.8 March 27, 2014 Field Activities

Microbe application was initiated in the diesel fuel dispenser excavation pit and UST excavation pit by Wiser, Inc. (Wiser) of Vancouver, Washington. The microbes consisted of BAS-IND 500 Bio Aabsorb from AaBACO Industries. Approximately 20 gallons of the microbes were diluted to 200 gallons with water from the pit and applied on each layer of backfill, as well as being injected into the sidewalls, subsequent to hand augering at select locations. Backfilling was initiated with crushed run layers of 6 inches and each lift was compacted with a steamroller (see photographs – **Appendix B**). BMEC personnel oversaw the field activities.

2.9 March 28, 2014 Field Activities

Wiser continued microbe application in the diesel fuel dispenser excavation pit and UST excavation pit. Each 6-inch lift was compacted with a steamroller. BMEC personnel oversaw the field activities.

2.10 March 29, 2014 Field Activities

Wiser continued microbe application in the diesel fuel dispenser excavation pit and UST excavation pit. Each 6-inch lift was compacted with a steamroller. BMEC personnel oversaw the field activities.

2.11 April 8 – 14, 2014 Field Activities

PNE Corporation (PNE) from Longview, Washington installed three USTs. Two of the tanks were 20,000-gallon Glasteel diesel tanks and the third tank was a 6000-gallon DEF tank. The locations of the three tanks as installed, as well as tank schematics, are included in **Appendix D**.

During the UST installation process, the only task for BMEC personal was to make sure that the excavated material was properly segregated at the designated staging area as clean soil and PCS.

2.12 Sample Laboratory Analysis Summary

Fourteen soil samples were obtained from the beneath the seven former diesel fuel dispensers (SS-1 through SS-14). Thirteen soil sidewall samples were obtained from the diesel fuel dispenser excavation sidewalls (SW-1 through SW-13). Six soil samples were obtained from beneath the two former tanks (TP-1 through TP-6). Two water samples were obtained from observation wells (mis-labeled as MW1 and MW4). All 33 soil samples and two water samples were relinquished to OnSite for a combination of the following laboratory analyses:

- Total petroleum hydrocarbons (TPH) – diesel range (TPH-D) and TPH – heavy oil range (TPH-O) per Northwest Method NWTPH-Dx;
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) per EPA Method 8021B; and
- Polynuclear aromatic hydrocarbons (PAHs) per EPA Method 8270 SIM.

Additionally, ten soil samples were obtained from the PCS stockpiled at the staging area (3-11-SP1 through 03-12-SP-10) and relinquished to OnSite for TPH-D and TPH-O analysis per Northwest Method NWTPH-

Dx. One standing water sample was obtained from the base of the excavation pit (3-12-E1) and relinquished to OnSite for TPH-D and TPH-O analysis per Northwest Method NWTPH-Dx, as well as PAH analysis per EPA Method 8270 SIM. **Figure 1** illustrates the locations of each of the soil and water sample locations.

3.0 LABORATORY ANALYTICAL RESULTS

During the subsurface investigation related to the diesel fuel dispensers performed at the Site in March and April 2014, a total of 43 soil samples, including 10 soil stockpile samples, were obtained for laboratory analyses. Additionally, three water samples were obtained for laboratory analyses. The 46 samples were relinquished to OnSite for a combination of the laboratory analyses listed above in Section 2.12.

The laboratory analytical results of the 43 soil samples are presented in the following text and summarized in **Tables 1** and **2.** The laboratory analytical results of the three water samples are also presented in the following text and summarized in **Tables 3** and **4**. Complete copies of all laboratory analytical reports and chain of custody documentation for all sampling activities are presented in **Appendix E**.

3.1 Soil Stockpile Samples

Ten soil samples (3-11-SP1 through 03-12-SP-10) were collected for laboratory analyses on March 11 and 12, 2014. The locations of the 10 soil samples are illustrated on **Figure 2**. Each of the 10 samples was analyzed for TPH-D and TPH-O per Northwest Method NWTPH-Dx.

TPH-D was detected in the 10 samples at concentrations ranging from 2700 parts per million (ppm) in sample 3-11-SP1 to 17,000 ppm in sample 03-12-SP-8 (**Table 1**). TPH-O was not detected in any of the ten samples.

These samples were obtained from the PCS stockpiled in the staging area, subsequent to excavation from the vicinity of the diesel fuel dispensers and UST system. It is estimated that approximately 30,000 feet^3 of PCS is contained within the soil staging area awaiting future disposal.

3.2 Soil Samples Obtained Beneath Former Diesel Fuel Dispensers

Fourteen soil samples (03-13-SS1 through 03-13-SS14) were collected for laboratory analyses on March 13, 2014 from beneath the former diesel fuel dispensers in the truck plaza. The locations of the 14 soil samples are illustrated on **Figure 2**. Each of the 14 samples was analyzed for TPH-D and TPH-O per Northwest Method NWTPH-Dx, BTEX per EPA Method 8021B, and PAHs per EPA Method 8270 SIM.

TPH-D was detected in all 14 samples at concentrations ranging from 690 ppm in sample 03-13-SS13 to 9800 ppm in sample 03-13-SP14 (**Table 1**). Eleven of the samples yielded TPH-D concentrations that exceeded the MTCA Method A cleanup levels of 2000 ppm. TPH-O was not detected in any of the 14 samples.

Benzene was detected in two of the 14 samples at concentrations of 0.049 ppm in sample 03-13-SS7 and 0.098 ppm in sample 03-13-SS8. Both benzene detections exceed the MTCA Method A Cleanup Levels of

0.03 ppm (**Table 1**). Toluene was not detected in any of the 14 samples. Ethylbenzene was detected in 11 of the 14 samples at concentrations ranging from 0.077 ppm in sample 03-13-SS12 to 4.7 ppm in sample 03-13-SS8. None of the 11 ethylbenzene concentrations exceed the MTCA Method A Cleanup Levels. Total xylenes were detected in 12 of the 14 samples at concentrations ranging from 0.11 ppm in sample 03-13-SS2 to 14 ppm in sample 03-13-SS8. The detection of 14 ppm in sample 03-13-SS8 is the only concentration that exceeds the MTCA Method A Cleanup Levels of 9 ppm.

PAHs were detected in 13 of the 14 samples at concentrations ranging up to 2.7 ppm 2-methyl-naphthalene in sample 03-13-SS6 (**Table 2**). The cumulative concentration of all three naphthalenes (naphthalene + 1-methylnaphthalene + 2-methlynaphthalene) in sample 03-13-SS6 exceeds the MTCA Method A Cleanup Levels of 5 ppm. None of the seven Ecology-classified carcinogenic PAHs were detected in any of the 14 samples (**Table 2**).

3.3 Soil Sidewall Samples

Thirteen soil sidewall samples (03-19-SW-1 through 03-19-SW-13) were collected for laboratory analyses on March 19, 2014 from the sidewalls of the diesel fuel dispenser excavation pit. The locations of the 13 soil samples are illustrated on **Figure 2**. Each of the 13 samples was analyzed for TPH-D and TPH-O per Northwest Method NWTPH-Dx, BTEX per EPA Method 8021B, and PAHs per EPA Method 8270 SIM.

TPH-D was detected in 11 of the 13 samples at concentrations ranging from 81 ppm in sample 03-19-SW-13 to 4300 ppm in sample 03-13-SW-2 (**Table 1**). Three of the samples yielded TPH-D concentrations that exceeded the MTCA Method A Cleanup Levels of 2000 ppm. TPH-O was not detected in any of the 13 samples.

Benzene, toluene, and ethylbenzene were not detected in any of the 13 samples (**Table 1**). Total xylenes were detected in two of the 13 samples at concentrations of 0.071 ppm in sample 03-19-SW-8 and 0.088 ppm in sample 03-19-SW-5. Neither of the xylenes detections exceed the MTCA Method A Cleanup Levels.

PAHs were detected in 10 of the 13 samples at concentrations ranging up to 0.87 ppm fluorene in sample 03-19-SW-2 (**Table 2**). None of the seven Ecology-classified carcinogenic PAHs were detected in any of the 13 samples (**Table 2**). Furthermore, none of the detected PAH concentrations exceed the MTCA Method A Cleanup Levels.

3.4 Tank Pit Soil Samples

Six soil tank pit samples (03-19-TP-1 through 03-19-TP-6) were collected for laboratory analyses on March 19, 2014 from the base of the former UST excavation pit. The locations of the six soil samples are illustrated on **Figure 2**. Each of the six samples was analyzed for TPH-D and TPH-O per Northwest Method NWTPH-Dx, BTEX per EPA Method 8021B, and PAHs per EPA Method 8270 SIM.

TPH-D was detected in all six samples at concentrations ranging from 1200 ppm in sample 03-19-TP-4 to 6200 ppm in sample 03-19-TP-5 (**Table 1**). Four of the samples yielded TPH-D concentrations that exceed the MTCA Method A Cleanup Levels of 2000 ppm. TPH-O was detected in two of the six samples at

concentrations of 720 ppm in sample 03-19-TP-6 and 890 ppm in sample 03-19-TP-5. Neither of the TPH-O detections exceed the MTCA Method A Cleanup Levels.

Benzene and toluene were not detected in any of the six samples (**Table 1**). Ethylbenzene was detected in one of the six samples (03-19-TP-5) at a concentration of 0.11 ppm which does not exceed the MTCA Method A Cleanup Levels. Total xylenes were detected in two of the six samples at concentrations of 0.33 ppm in sample 03-19-TP-6 and 1.02 ppm in sample 03-19-TP-5. Neither of the xylenes detections exceeds the MTCA Method A Cleanup Levels.

PAHs were detected in all six samples at concentrations ranging up to 2.5 ppm 2-methylnaphthalene in sample 03-19-TP-5 (**Table 2**). Chrysene at a concentration of 0.061 ppm in sample 03-19-TP-5 was the only Ecology-classified carcinogenic PAH detected in the six samples; however, this concentration does not exceed the MTCA Method A Cleanup Levels. The cumulative concentration of all three naphthalenes (naphthalene + 1-methylnaphthalene + 2-methlynaphthalene) in sample 03-19-TP-5 exceeds the MTCA Method A Cleanup Levels of 5 ppm.

3.5 Water Samples

Water samples 3-12-MW1 and 3-12-MW-4 were collected from observation wells on March 12, 2014. The sample locations are illustrated on **Figure 2**. Both of the water samples were analyzed for TPH-D and TPH-O per Northwest Method NWTPH-Dx, BTEX per EPA Method 8021B, and PAHs per EPA Method 8270 SIM. PHCs (TPH-D, TPH-O, BTEX, and PAHs) were not detected in either sample (**Tables 3** and **4**).

Neither of these observation wells are true monitoring wells, but instead were designed to assess standing water intrusion and/or petroleum vapor accumulation in the former tank pit. Both observation wells were completed to an approximate depth of 10 feet bsg without adherence to proper Ecology monitoring well installation methodology (i.e., screened intervals, sandpack, and bentonite plugs). Collection of these two water samples are representative of stagnant, standing water in the former tank pit that had accumulated over time rather than a true representation of the local groundwater conditions. Both water samples were mis-labeled as “MW” samples, rather than “OW” samples.

Water sample 3-12-E1 was collected from the base of the excavation pit on March 12, 2014 at the location illustrated on **Figure 2**. Sample 3-12-E1 was analyzed for TPH-D and TPH-O per Northwest Method NWTPH-Dx and PAHs per EPA Method 8270 SIM. TPH-D was detected at a concentration of 3300 parts per billion (ppb) which exceeds the MTCA Method A Cleanup Level of 500 ppb. TPH-O was not detected in the water sample.

PAHs were detected in sample 3-12-E1 at concentrations that exceed the MTCA Method A Cleanup Levels (**Table 4**). The cumulative concentration of all three naphthalenes (naphthalene + 1-methyl-naphthalene + 2-methlynaphthalene) in sample 3-12-E1 exceeded the MTCA Method A Cleanup Level of 160 ppb. Additionally, the cumulative concentration of the seven Ecology-classified carcinogenic PAHs exceeds the MTCA Method A Cleanup Level of 0.1 ppb (**Table 4**).

4.0 SITE GEOLOGY AND HYDROGEOLOGY

According to the U.S. Department of Agriculture Soil Survey of Yakima County, Washington, the Site is underlain by the Ashue Silt Loam which is considered very deep and moderately well-drained with moderately coarse textures. A typical cross-section of the Ashue Silt Loam includes a 9-inch thick surface layer of light brown to brown loam, underlain by an approximate 15-inch thick layer of light gray, gravelly sandy loam, and further underlain by light yellowish brown and pale brown very gravelly sand up to 60 inches thick.

According to Ecology Well Log ID# 139757, the subsurface lithology in the vicinity of the Site is as follows:

- Brown SAND from 0 to 10 feet bsg;
- 2-inch GRAVEL from 10 to 16 feet bsg;
- Black BASALT from 16 to 60 feet bsg;
- Porous (Vesicular) BASALT from 60 to 82 feet bsg;
- Black BASALT from 82 to 120 feet bsg; and
- SANDSTONE from 120 to 145 feet bsg.

Static water level for the water well was recorded at 12 feet bsg. The well yield was recorded at 75 gallons per minute for the 6-inch diameter water well.

During the onsite field activities conducted March 13 and 14, 2014, the following subsurface lithology was encountered:

- Asphalt/concrete from 0 to 0.5 feet bgs, rounded pea gravel from 0.5 to 1.0 feet bsg;
- SILT with some rounded gravel from 1.0 to 2.5 feet bsg; and
- Silty, rounded GRAVEL (river rock) from 2.5 to 8.0 feet bsg.

Groundwater was encountered during the March 13 and 14, 2014 field activities at an approximate depth of 8 to 8.5 feet bsg. The inferred groundwater flow direction at the Site is to the south/southeast toward the Yakima River.

Geologically, the Site is located in the Yakima Fold Belt east of the Cascade Range in a much dryer climate that receives between 6 to 18 inches of precipitation annually. The Yakima Fold Belt is dominated by east-west trending anticlinal ridges and synclinal valley(s). The Site is located southeast of the Rattlesnake Mountains and immediately north of the Horse Heaven Hills. The near surface soils are formed primarily from deposition of Quaternary sediments that overlie Miocene Columbia River Basalt Group flood basalts. Fine-grained slackwater sediments characterized by rhythmically graded bedding were deposited throughout the Pleistocene atop the Miocene basalts in the area of the Columbia Gorge extending north to the Yakima Valley including the region surrounding the Site. Volcanic ash deposits and wind-blown loess deposits are also noted throughout the region.

5.0 FIELD OBSERVATIONS

During the March 12, 2014 field activities, soil discolored dark gray and displaying a strong diesel odor was noted near the base of the diesel fuel dispenser excavation pit at an approximate depth of 7.5 to 8 feet bsg (see photograph - **Appendix B**). The diesel fuel-contaminated soil was noted in the vicinity of soil sample 03-19-TP-5 (**Figure 2**). At this stage of the project, discussion was initiated with the current owner, Christensen-Powell Inc., regarding the necessity to remove the former USTs to further delineate the diesel fuel contaminated soils.

During the March 13 and 14, 2014 field activities, the dimensions of the excavation pit created by removal of the diesel fuel dispenser pump islands and canopy foundations were approximately 130 feet by 28 feet by 8 feet deep. The soil on the south side of the trench and southeast corner of the trench was stained dark brown to gray and had a strong diesel fuel odor from 2 to 8 feet bsg. Aside from the vicinity of soil sample 03-19-TP-5, no staining was noted in the soil on the north or west sides of the trench. Dark gray to black soil staining was noted throughout the base of the trench at an approximate depth of 8 feet bsg. Pooled groundwater was noted at the base of the excavation at an approximate depth of 8 to 8.5 feet bsg. The groundwater had an oily sheen on the surface.

The soil staining on the south sidewall of the trench was very evident at an approximate depth of 2 feet bsg and extended to the base of the excavation at 8 feet bsg. This solid line of discoloration and petroleum odor from 2 to 8+ feet bsg strongly suggests that the groundwater surface has fluctuated to as high as 2 feet bsg in the past and created a diesel fuel “smear zone” that was evident during the site assessment from approximately 2 to 8 feet bsg.

During a site visit on April 23, 204, Peter Trabusiner (BMEC Engineer) noted the groundwater surface had risen to an elevation approximately three feet bsg. This substantial rise in the groundwater surface may be attributed to seasonal irrigation water usage in the vicinity of Prosser infiltrating into the subsurface.

6.0 BENEFICIAL WATER USE DETERMINATION

No water wells (domestic, industrial, or irrigation) exist onsite. The Site domestic water supply is provided by a municipal water source from the city of Prosser. According to Mr. Andrew Robinson (Public Works Utility Worker IV), the city of Prosser municipal water supply is created by six water wells located on the south side of the Yakima River and the depths of the six water wells vary from several hundred feet up to 1500 feet bsg. Per Mr. Robinson, the groundwater from all six municipal water wells is piped to a treatment plant at the base of the Horse Heaven Hills and this treated water supply is then redistributed throughout most of the city, including the Site at 101 Merlot Drive.

According to the Washington State Department of Ecology website https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/SearchResultsWithPaging.aspx a total of 33 water wells have been installed in Section 35, Township 9 North, Range 24 East of the Willamette Meridian. The specific location of these 33 water wells in relation to the Site will need to be assessed in the future via a beneficial water use determination (BWUD) survey, if it is confirmed via the ensuing

hydrogeological assessment that PHCs are present in the groundwater at concentrations that exceed the Ecology MTCA Method A Cleanup Levels.

7.0 LAND USAGE

The 3.92-acre property is zoned CG (commercial, general). Adjacent properties to the west, south, and east are also zoned CG. Federal interstate (I-82) is adjacent to the north. A copy of the City of Prosser Zoning Classification map is included in **Appendix F**. The Site is located a short distance off exit 80 of Interstate 80/US Highway 12, and is surrounded by Interstate 80/US Highway 12 to the north, CG-zoned property to the west, Merlot Drive and commercial businesses (McDonalds and Kentucky Fried Chicken/Taco Bell) to the south, and a hotel (Best Western) to the east.

The CG zoning classification does allow for residential or urban residential living, but only in the scenario in which the residential or urban residential quarters are part of the primary business construction plans. No schools, day care facilities, or senior citizen living homes are allowed in the CG zoning designation.

According to Mr. Steve Zetz (City Planner), a Determination of Non-significance (DNS) was given to the Site on April 9, 2014. The DNS signifies that the City Planner has determined that no significant impact to wildlife or the surrounding environment requiring mitigation will result due to the installation of the new diesel fuel UST system and renovation of the interior of the existing convenience store dwelling. A copy of the DNS documentation is included as **Appendix G**. *By definition, information regarding the impact of the former diesel fuel dispensers and UST system on the environment is not used in assessing the DNS designation.*

8.0 RISK-BASED ASSESSMENT

The MTCA Method A Cleanup Levels are established to protect human receptors from potentially harmful sources (i.e., diesel and carcinogenic PAHs). TPH-D exceeded the MTCA Method A Cleanup Levels in all ten soil samples obtained from the soil stockpiles (3-11-SP1 through 03-12-SP-10). However, all stockpiled soil remains onsite as of May 2, 2014 and will be properly hauled to and disposed as PCS at a licensed waste disposal facility. Thus, once disposed properly, the stockpiled soil and all associated sample results will no longer be a human health risk concern.

Eleven of the 14 soil samples obtained from the bottom of the diesel fuel dispenser excavation pit (03-13-SS1 through 03-13-SS14) yielded PHC concentrations (TPH-D, benzene, and/or PAHs) that exceeded MTCA Method A Cleanup Levels. All eleven of these soil samples were obtained from an approximate depth of 8 feet bsg. Thus, since groundwater was observed to be at an approximate depth of 8 to 8.5 feet bsg during the day of collection of these samples on March 13, 2014, the MTCA Method A Cleanup Level exceedances in soil attributed to these 11 samples should technically be considered a potential groundwater issue moving forward.

Figure 3 illustrates the location of all samples (soil and water) that yielded PHC concentrations in excess of MTCA Method A Cleanup Levels.

Three of the 13 soil samples obtained from the sidewalls of the diesel fuel dispenser excavation pit (03-19-SW-1 through 03-19-SW-14) yielded PHC concentrations (TPH-D) that exceeded MTCA Method A Cleanup Levels. All three of these soil samples were obtained from an approximate depth of 8 feet bsg. Thus, since groundwater was observed to be at an approximate depth of 8 to 8.5 feet bsg during the day of collection of these samples on March 19, 2014, the MTCA Method A Cleanup Level exceedances in soil attributed to these three samples should technically be considered a potential groundwater issue moving forward.

Four of the six soil samples obtained from the bottom of the UST excavation pit (03-19-TP-1 through 03-19-TP-6) yielded PHC concentrations (TPH-D) that exceeded MTCA Method A Cleanup Levels. All four of these soil samples were obtained from an approximate depth of 8 feet bsg. Thus, since groundwater was observed to be at an approximate depth of 8 to 8.5 feet bsg during the day of collection of these samples on March 19, 2014, the MTCA Method A Cleanup Level exceedances in soil attributed to these four samples should technically be considered a potential groundwater issue moving forward.

Since the predominant depth of PHC contamination exceeding MTCA Method A Cleanup Levels is at 8 feet bsg and this area of the Site will be capped with concrete and/or asphalt, potential receptor contact via the contaminated soil is unlikely. Furthermore, any residual PHC contamination associated with the diesel fuel dispenser contamination will likely be addressed by the insitu bioremediation that was implemented in the source area on March 17, 2014.

9.0 CONCLUSIONS

A total of 43 soil samples and three water samples were obtained for laboratory analysis from the Site during the March and April 2014 subsurface investigation activities. The single groundwater sample (3-12-E1) was impacted with TPH-D and PAHs at concentrations exceeding the MTCA Method A Cleanup Levels.

Ten of the soil samples were obtained from stockpiled soil that remains onsite secured with plastic liner and protective covering. This approximately 30,000 ft^3 of stockpiled soil will be hauled to and disposed at a licensed waste disposal facility in the near future. A summary of MTCA Method A Cleanup Level exceedances in soil is as follows:

- Eleven of the 14 soil samples obtained from the base of the former diesel fuel dispenser excavation pit contained TPH-D concentrations exceeding MTCA Method A Cleanup Levels.
- Two of the 14 soil samples obtained from the base of the former diesel fuel dispenser excavation pit contained benzene concentrations exceeding MTCA Method A Cleanup Levels.
- One of the 14 soil samples obtained from the base of the former diesel fuel dispenser excavation pit contained total xylenes at a concentration exceeding MTCA Method A Cleanup Levels.
- One of the 14 soil samples obtained from the base of the former diesel fuel dispenser excavation pit contained PAHs at a concentration exceeding MTCA Method A Cleanup Levels.
- Three of the 13 soil samples obtained from the sidewalls of the former diesel fuel dispenser excavation pit contained TPH-D concentrations exceeding MTCA Method A Cleanup Levels.

- Four of the six soil samples obtained from the bottom of the former UST excavation pit contained TPH-D concentrations exceeding MTCA Method A Cleanup Levels.
- One of the six soil samples obtained from the bottom of the former UST excavation pit contained PAHs at a concentrations exceeding MTCA Method A Cleanup Levels.

Groundwater was observed to be at an approximate depth of 8 to 8.5 feet bsg on March 13 and 14, 2014 and as shallow as 3 feet bsg on April 23, 2014. Thus, the MTCA Method A Cleanup Levels exceedances in soil should technically be considered a potential groundwater issue moving forward. Potential receptor contact via the TPH-D-, benzene-, xylene-, and PAH-contaminated soil is unlikely due to the following reasons:

- The predominant depth of PHC contamination in soil appears to be at 8 feet bsg and this area of the Site will be capped with concrete and/or asphalt.
- Any residual PHC contamination associated with the diesel fuel dispenser contamination will likely be addressed by the insitu microbial bioremediation that was implemented in the source area on March 17, 2014.
- The Site is zoned CG and future residential or urban residential land usage, although allowed in limited format, is unlikely.

Field observations noted during the subsurface investigation activities were as follows:

- Dark brown to gray soil staining of the subsurface soil was noted from 2 to 8 feet bsg on the south sidewall of the former diesel fuel dispenser excavation pit. Olfactory evidence of moderate to strong petroleum odors was associated the soil staining.
- An oily sheen was observed on the surface of the groundwater pooled in the diesel fuel dispenser excavation pit.
- Well-rounded GRAVEL or RIVER ROCK was encountered near the base of the 8 foot deep excavation. BASALT bedrock was encountered at approximately 13 feet bsg in the excavation(s).
- Groundwater flow direction beneath the Site is undetermined. However, the inferred groundwater flow direction is to the south-southeast toward the Yakima River.
- The Site obtains its domestic water source from the municipal water supply, not a private, onsite water well.

10.0 RECOMMENDATIONS

Per Ecology's recommendation, PHCs in the subsurface soils have been thoroughly delineated in the vicinity of the former diesel fuel dispensers at the truck plaza. The stockpiled soil needs to be disposed at a licensed waste disposal facility, as planned.

Delineation of the extent and magnitude of PHCs in the shallow groundwater needs to be assessed at the Site. Thus, a network of monitoring wells should be installed at the Site to assess the potential for PHCs (TPH-D, TPH-O, BTEX, and PAHs) in the shallow aquifer, as well as to confirm the seasonal depths to groundwater and groundwater flow direction. This network of monitoring wells should consist of a minimum of seven wells: A minimum of one monitoring well should be located up-gradient of the diesel fuel source area (former diesel fuel dispenser excavation pit), one well should be located in the diesel fuel source area, and a minimum of five wells should be installed down-gradient of the diesel fuel source area. Each of the monitoring wells should be screened roughly from 5 to 15 feet bsg, in an attempt to monitor the dissolved-phase PHC contamination in the shallow groundwater that exists near the soil/bedrock interface. A report shall be completed documenting the findings of the groundwater assessment, including the completion of a BWUD survey.

11.0 STATEMENT OF ENVIRONMENTAL PROFESSIONALS

Statement of Quality Assurance

We have performed this subsurface investigation in accordance with generally accepted environmental practices and procedures, as of the date of this report. We have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area. The conclusions contained within this subsurface investigation are based upon site conditions we readily observed or which were reasonably ascertainable and present at the time of the Site assessment.

The conclusions and recommendations stated in this report are based upon personal observations made by employees of BMEC and upon information provided by others. We have no reason to suspect or believe that the information provided by others is inaccurate.

Brent N. Bergeron, WA Professional Geologist

Statement of Quality Control

The objective of this subsurface investigation was to ascertain the potential presence or absence of petroleum hydrocarbons that could impact subsurface soils attributed to diesel fuel dispensers on the subject property. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted engineering practices in order to accomplish the stated objective.

Blue Mountain Environmental Consulting, Inc.

Peter H. Trabusiner, Engineer

12.0 REPORT LIMITATIONS

The subsurface investigation report has been performed for the exclusive use of Mr. Brian Rogers, or agents specified by him, for the transaction at issue concerning the subject property in Prosser, Washington. The objective of this subsurface investigation was to ascertain the potential presence or absence of petroleum hydrocarbons (i.e., diesel fuel) that could impact subsurface soils (and potentially the shallow groundwater) on the subject property in the vicinity of seven diesel fuel dispensers. Any other petroleum hydrocarbon sources that have impacted, or may potentially impact the Site, were not part of the assessment process.

The purpose of this environmental subsurface investigation was to evaluate potential or actual PHC (i.e., diesel fuel) impact to subsurface soils (and potentially the shallow groundwater). Assessment of the two former 15,000-gallon diesel fuel USTs was not part of the initial subsurface assessment objective. In performing an environmental subsurface investigation, a balance must be struck between reasonable inquiry into environmental issues and an exhaustive analysis of every conceivable issue of possible concern. This environmental subsurface investigation contains BMEC's opinions regarding environmental issues of concern and/or additional issues that may need to be addressed. In rendering our professional opinion, BMEC warrants that the services provided within the scope of this assessment were performed, within the limits described, in accordance with generally accepted environmental consulting principles and practices. No other warranty, expressed or implied, is made. The following paragraphs describe the assumptions and standard parameters under which such opinion is rendered.

Any opinions and/or recommendations presented in this report apply to site conditions existing at the time of performance of services. BMEC is unable to report on or accurately predict events that may affect the site after performance of services, whether occurring naturally or caused by human forces. BMEC assumes no responsibility for conditions BMEC did not investigate, or conditions not generally recognized as environmentally unacceptable at the time services were performed.

Except where there is expressed concern of our client, or where specific environmental contaminants have previously been reported by others, naturally occurring toxic substances, potential environmental contaminants located inside buildings, or contaminant concentrations not of current environmental concern, may not be addressed in this document.

No assessment is thorough enough to exclude the presence of hazardous materials at a given site. Therefore, if specific hazardous materials have not been identified during this assessment, the lack of such identifications should not be construed as a guarantee of the absence of hazardous materials, but merely as the result of services performed within the scope, limitations, and cost of work done.

BMEC is not responsible for the effects of changes in applicable environmental standards, practices, or regulations after the performance of services.

Services provided for this assessment were performed in accordance with BMEC's agreement and understanding with our client, which may not be fully disclosed in this report. Opinions and/or recommendations are intended for the client, purpose, site, location, time frame, and project parameters indicated.

This report was prepared solely for the use of our client, and should be reviewed in its entirety; BMEC is not responsible for subsequent separation, detachment, or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.

Cc: Ms. Krystal Rodriguez, Washington Department of Ecology - Tanks Program
Ms. Valerie Bound, Washington Department of Ecology - Toxics Cleanup Program

13.0 REFERENCES

Robinson, Andrew, Public Works Utility Worker IV – City of Prosser, Washington, personal communication, April 30, 2014.

Washington State Department of Ecology, *Model Toxics Control Act Statue and Regulation*, Revised November 2007.

Washington State Department of Ecology - water well website https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/SearchResultsWithPaging.aspx

Zetz, Steve, City Planner – City of Prosser, Washington, personal communication, April 30, 2014.

Image Provided by ESRI

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Horse Heaven Hills Truck Stop
101 Merlot Drive
Prosser, WA 99350

FIGURE 1: SITE LOCATION MAP

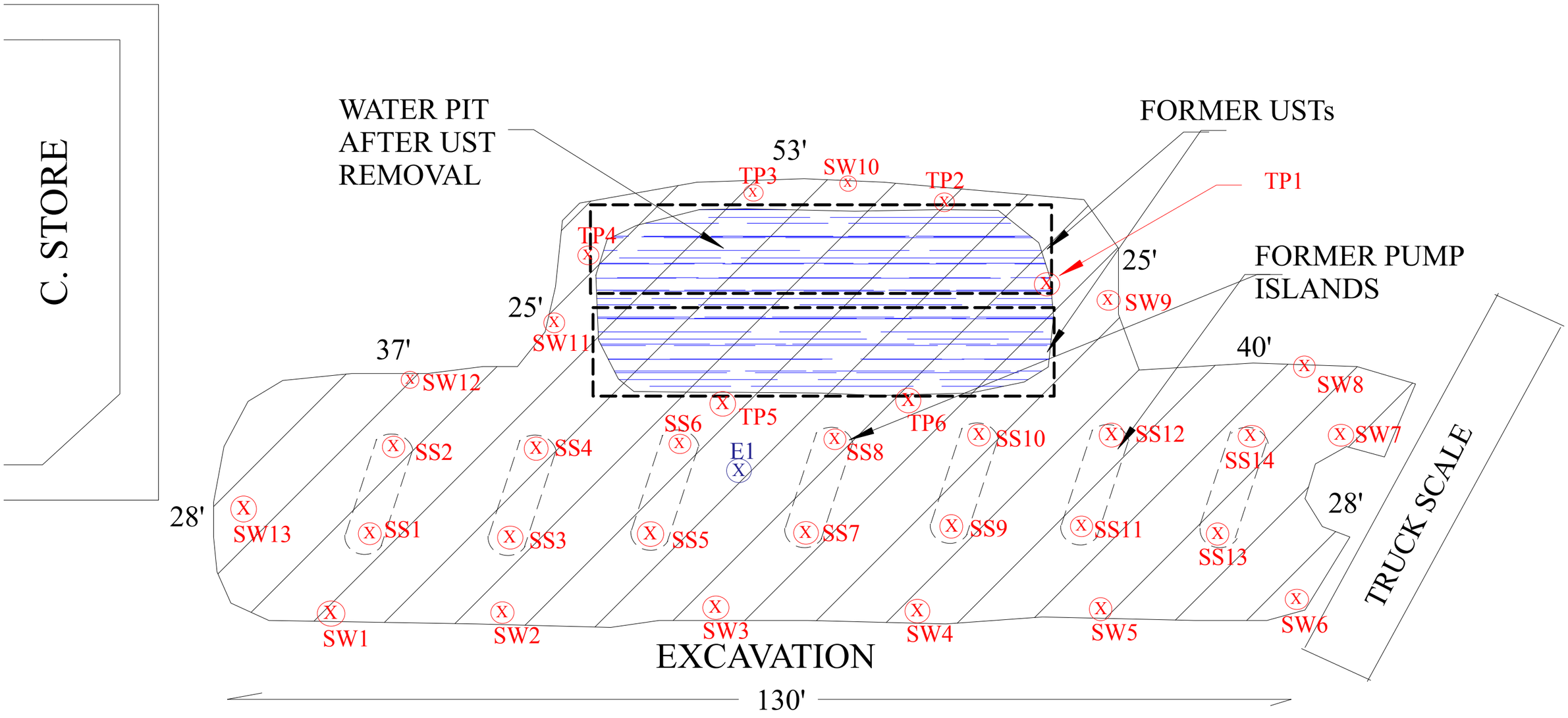

FIGURE 2: SAMPLE LOCATION MAP

Horse Heaven Hills Truck Stop
101 Merlot Drive
Prosser, WA 99350

N

Scale 1" = 12.5'

LEGEND

(X) = SOIL SAMPLES

(X) = WATER SAMPLE

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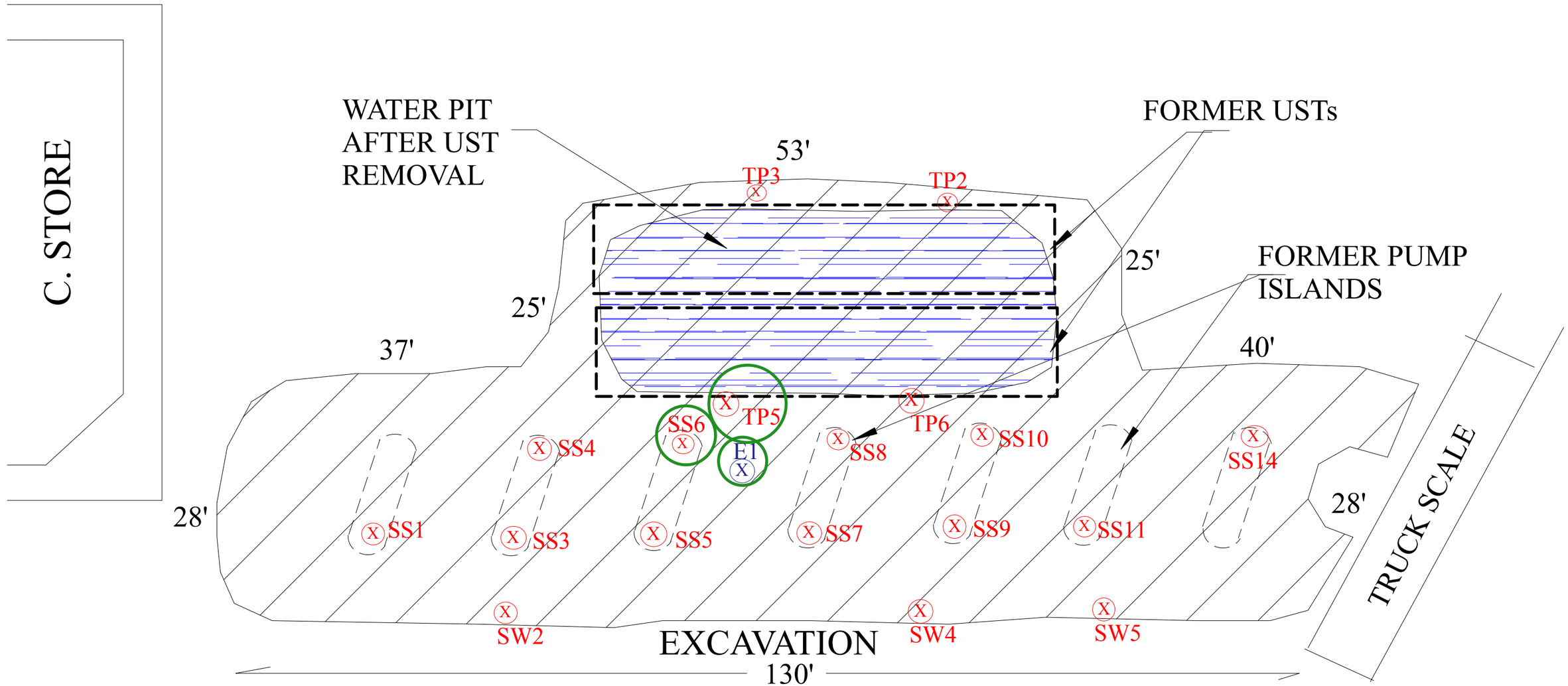

LEGEND

X = SOIL SAMPLES EXCEEDING MTCA METHOD A CLEANUP LEVELS FOR TPH-Dx

X = WATER SAMPLE EXCEEDING MTCA LEVEL A METHOD LEVELS FOR TPH-Dx

= SAMPLES EXCEEDING MTCA METHOD A CLEANUP LEVELS FOR PAHs

FIGURE 3: SAMPLE LOCATION MAP FOR SAMPLES THAT EXCEEDED MTCA CLEANUP LEVELS

Horse Heaven Hills Truck Stop
101 Merlot Drive
Prosser, WA 99350

N

Scale 1" = 12.5'

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TABLE 1
Soil Sample Laboratory Analytical Data For TPH and Select VOCs
Horse Heaven Hills Truck Plaza - 101 Merlot Drive
Prosser, Washington 99350

Sample I.D.	Date Collected	Collection Depth (Feet bsg)	Total Petroleum Hydrocarbons		VOCs by EPA Method 8021B (mg/Kg)			
			TPH-D by Method NWTPH-Dx (mg/Kg)	TPH-O by Method NWTPH-Dx (mg/Kg)	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Stockpile Samples								
3-11-SP1	3/11/14	0.25'	**2700**	< 180	NA	NA	NA	NA
3-11-SP2	3/11/14	0.25'	**10,000**	< 700	NA	NA	NA	NA
3-11-SP3	3/11/14	0.25'	**6100**	< 410	NA	NA	NA	NA
03-11-SP-4	3/11/14	0.25'	**9800**	< 530	NA	NA	NA	NA
03-11-SP-5	3/11/14	0.25'	**4300**	< 210	NA	NA	NA	NA
03-11-SP-6	3/11/14	0.25'	**3600**	< 160	NA	NA	NA	NA
03-12-SP-7	3/12/14	0.25'	**3600**	< 210	NA	NA	NA	NA
03-12-SP-8	3/12/14	0.25'	**17,000**	< 820	NA	NA	NA	NA
03-12-SP-9	3/12/14	0.25'	**5100**	< 310	NA	NA	NA	NA
03-12-SP-10	3/12/14	0.25'	**10,000**	< 480	NA	NA	NA	NA
Soil Samples (Obtained Beneath Former Diesel Fuel Dispensers)								
03-13-SS1	3/13/14	8'	**2500**	< 200	< 0.026	< 0.13	**0.27**	**1.13**
03-13-SS2	3/13/14	8'	**1100**	< 140	< 0.022	< 0.11	< 0.11	**0.11**
03-13-SS3	3/13/14	8'	**2000**	< 200	< 0.020	< 0.081	**0.36**	**0.73**
03-13-SS4	3/13/14	8'	**2100**	< 160	< 0.027	< 0.14	**0.17**	**0.83**
03-13-SS5	3/13/14	8'	**7800**	< 400	< 0.025	< 0.13	**1.7**	**2.6**
03-13-SS6	3/13/14	8'	**5900**	< 350	< 0.025	< 0.12	**2.2**	**6.54**
03-13-SS7	3/13/14	8'	**7900**	< 480	**0.049**	< 0.11	**2.8**	**7.7**
03-13-SS8	3/13/14	8'	**4500**	< 280	**0.098**	< 0.14	**4.7**	**14**
03-13-SS9	3/13/14	8'	**3800**	< 210	< 0.022	< 0.11	**0.75**	**0.66**
03-13-SS10	3/13/14	8'	**4600**	< 350	< 0.026	< 0.13	**0.62**	**0.95**
03-13-SS11	3/13/14	8'	**3800**	< 290	< 0.020	< 0.070	**0.30**	**0.53**
03-13-SS12	3/13/14	8'	**1300**	< 140	< 0.020	< 0.065	**0.077**	**0.315**
03-13-SS13	3/13/14	8'	**690**	< 83	< 0.020	< 0.068	< 0.068	< 0.136
03-13-SS14	3/13/14	8'	**9800**	< 530	< 0.023	< 0.11	< 0.11	< 0.22
Sidewall Samples								
03-19-SW-1	3/19/14	8'	**670**	< 65	< 0.020	< 0.065	< 0.065	< 0.130
03-19-SW-2	3/19/14	8'	**4300**	< 360	< 0.020	< 0.070	< 0.070	< 0.140
03-19-SW-3	3/19/14	8'	**1400**	< 130	< 0.020	< 0.062	< 0.062	< 0.124
03-19-SW-4	3/19/14	8'	**2100**	< 180	< 0.020	< 0.072	< 0.072	< 0.144
03-19-SW-5	3/19/14	8'	**2200**	< 170	< 0.020	< 0.069	< 0.069	**0.088**
03-19-SW-6	3/19/14	8'	**1800**	< 220	< 0.020	< 0.054	< 0.054	< 0.108
03-19-SW-7	3/19/14	8'	**880**	< 130	< 0.020	< 0.060	< 0.060	< 0.120
03-19-SW-8	3/19/14	8'	**1300**	< 130	< 0.020	< 0.054	< 0.054	**0.071**
03-19-SW-9	3/19/14	8'	**1300**	< 160	< 0.020	< 0.066	< 0.066	< 0.132
03-19-SW-10	3/19/14	8'	**1600**	< 220	< 0.020	< 0.058	< 0.058	< 0.116
03-19-SW-11	3/19/14	8'	< 31	< 62	< 0.020	< 0.082	< 0.082	< 0.164
03-19-SW-12	3/19/14	8'	< 28	< 55	< 0.020	< 0.067	< 0.067	< 0.134
03-19-SW-13	3/19/14	8'	**81**	< 58	< 0.020	< 0.068	< 0.068	< 0.136
Tank Pit Samples								
03-19-TP-1	3/19/14	8'	**1900**	< 200	< 0.020	< 0.064	< 0.064	< 0.128
03-19-TP-2	3/19/14	8'	**2100**	< 240	< 0.020	< 0.055	< 0.055	< 0.110
03-19-TP-3	3/19/14	8'	**4600**	< 290	< 0.020	< 0.059	< 0.059	< 0.118
03-19-TP-4	3/19/14	8'	**1200**	< 1800	< 0.020	< 0.092	< 0.092	< 0.184
03-19-TP-5	3/19/14	8'	**6200**	**890**	< 0.020	< 0.061	**0.11**	**1.02**
03-19-TP-6	3/19/14	8'	**4000**	**720**	< 0.020	< 0.064	< 0.064	**0.33**
Ecology MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses (mg/Kg)								
Unrestricted Land Uses			**2000**	2000	**0.03**	7	6	**9**
Industrial Properties			**2000**	2000	**0.03**	7	6	**9**

Notes:

mg/Kg = milligrams per Kilogram or parts per million (ppm)

NA = not analyzed

MTCA = Model Toxics Cleanup Act

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

bsg = below surface grade

2100 Bold print with yellow highlighting indicates the soil concentration exceeds the MTCA Method A Cleanup Levels.

TABLE 2
Soil Sample Laboratory Analytical Data For PAHs
Horse Heaven Hills Truck Plaza - 101 Merlot Drive
Prosser, Washington 99350

Sample I.D.	Date Collected	Collection Depth (Feet bsg)	Polynuclear Aromatic Hydrocarbons by EPA Method 8270D SIM (mg/Kg)																	
			Naphthalene [1]	2-Methylnaphthalene [1]	1-Methylnaphthalene [1]	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene [2]	Chrysene [2]	Benzo[b]fluoranthene [2]	Benzo[j,k]fluoranthene [2]	Benzo[a]pyrene [2]	Indeno[1,2,3-c,d]pyrene [2]	Dibenz[a,h]anthracene [2]	Benzo[g,h,i]perylene
Soil Samples (Obtained Beneath Former Fuel Dispensers)																				
03-13-SS1	3/13/14	8'	**0.058**	**0.0099**	**0.035**	**0.011**	**0.038**	**0.074**	**0.023**	**0.024**	**0.014**	**0.059**	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078
03-13-SS2	3/13/14	8'	**0.037**	<0.0076	**0.021**	**0.0078**	**0.025**	**0.061**	**0.035**	**0.0093**	**0.012**	**0.039**	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076
03-13-SS3	3/13/14	8'	**0.26**	**0.37**	**0.40**	**0.065**	**0.18**	**0.056**	**0.48**	**0.11**	<0.044	**0.19**	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044
03-13-SS4	3/13/14	8'	**0.073**	**0.066**	**0.099**	<0.039	<0.039	**0.084**	**0.14**	<0.039	<0.039	**0.088**	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
03-13-SS5	3/13/14	8'	**0.94**	**0.95**	**2.0**	**0.073**	**0.27**	**1.5**	**1.0**	**0.22**	**0.18**	**0.5**	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
03-13-SS6	3/13/14	8'	**1.4**	**2.7**	**2.0**	**0.058**	**0.21**	**1.1**	**0.78**	**0.16**	**0.081**	**0.39**	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
03-13-SS7	3/13/14	8'	**0.98**	**1.3**	**1.1**	**0.1**	**0.41**	**0.22**	**1.2**	**0.22**	**0.049**	**0.36**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-13-SS8	3/13/14	8'	**0.65**	**1.6**	**0.72**	**0.050**	<0.041	**0.38**	**0.39**	**0.068**	<0.041	**0.10**	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
03-13-SS9	3/13/14	8'	**0.63**	**0.31**	**0.61**	**0.045**	**0.064**	**0.14**	**0.31**	**0.096**	<0.036	**0.15**	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
03-13-SS10	3/13/14	8'	**0.26**	**0.060**	**0.22**	<0.038	**0.049**	**0.25**	**0.18**	**0.061**	**0.042**	**0.19**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-13-SS11	3/13/14	8'	**0.25**	**0.27**	**0.23**	**0.062**	**0.067**	**0.12**	**0.19**	**0.066**	<0.041	**0.15**	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
03-13-SS12	3/13/14	8'	**0.055**	**0.090**	**0.064**	<0.039	<0.039	<0.039	**0.055**	<0.039	<0.039	**0.084**	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
03-13-SS13	3/13/14	8'	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	**0.067**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-13-SS14	3/13/14	8'	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074
Sidewall Samples																				
03-19-SW-1	3/19/14	8'	**0.019**	<0.0074	**0.015**	<0.0074	**0.024**	**0.017**	**0.0075**	<0.0074	<0.0074	**0.030**	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074
03-19-SW-2	3/19/14	8'	**0.18**	**0.041**	**0.056**	**0.047**	**0.21**	**0.87**	**0.47**	**0.22**	<0.040	**0.44**	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
03-19-SW-3	3/19/14	8'	**0.061**	<0.038	**0.066**	<0.038	**0.079**	**0.26**	**0.13**	**0.095**	<0.038	**0.17**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-19-SW-4	3/19/14	8'	**0.11**	<0.041	**0.15**	<0.041	**0.13**	**0.43**	**0.30**	**0.086**	<0.041	**0.17**	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
03-19-SW-5	3/19/14	8'	**0.072**	<0.041	**0.052**	<0.041	**0.065**	**0.14**	**0.054**	<0.041	**0.044**	**0.13**	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
03-19-SW-6	3/19/14	8'	<0.039	<0.039	<0.039	<0.039	<0.039	**0.047**	<0.039	**0.049**	<0.039	**0.12**	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
03-19-SW-7	3/19/14	8'	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	**0.017**	**0.0089**	**0.016**	<0.0076	**0.039**	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076	<0.0076
03-19-SW-8	3/19/14	8'	**0.026**	<0.0078	<0.078	**0.0086**	**0.021**	**0.019**	**0.016**	**0.018**	**0.029**	**0.093**	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078	<0.0078
03-19-SW-9	3/19/14	8'	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077	**0.012**	**0.0080**	<0.0077	<0.0077	**0.031**	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077	<0.0077
03-19-SW-10	3/19/14	8'	**0.0084**	**0.012**	**0.027**	<0.0074	**0.0094**	**0.032**	**0.018**	**0.010**	**0.016**	**0.052**	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074	<0.0074
03-19-SW-11	3/19/14	8'	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082
03-19-SW-12	3/19/14	8'	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073
03-19-SW-13	3/19/14	8'	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073	<0.0073
Tank Pit Samples																				
03-19-TP-1	3/19/14	8'	**0.057**	**0.063**	**0.096**	<0.038	<0.038	**0.12**	**0.045**	<0.038	<0.038	**0.090**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-19-TP-2	3/19/14	8'	**0.054**	<0.038	**0.055**	<0.038	<0.038	**0.084**	**0.047**	<0.038	<0.038	**0.12**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-19-TP-3	3/19/14	8'	**0.16**	**0.18**	**0.14**	<0.039	**0.068**	**0.20**	**0.13**	**0.076**	<0.039	**0.17**	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
03-19-TP-4	3/19/14	8'	**0.15**	**0.46**	**0.34**	<0.043	**0.056**	**0.12**	**0.12**	**0.044**	<0.043	**0.10**	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
03-19-TP-5	3/19/14	8'	**0.82**	**2.5**	**1.8**	**0.061**	**0.19**	**0.80**	**0.62**	**0.18**	**0.15**	**0.47**	<0.038	**0.061**	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
03-19-TP-6	3/19/14	8'	**0.38**	**1.3**	**0.95**	<0.039	**0.14**	**0.46**	**0.43**	**0.13**	**0.077**	**0.35**	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
Ecology MTCA Method A Soil Cleanup Levels (mg/Kg)																				
Unrestricted Land Uses			**5**	**5**	**5**	DNE	DNE	DNE	DNE	DNE	DNE	DNE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	DNE
Industrial Properties			**5**	**5**	**5**	DNE	DNE	DNE	DNE	DNE	DNE	DNE	2	2	2	2	2	2	2	DNE

Notes:

1 = Cleanup Level is total value for naphthalene + 1-methyl naphthalene + 2-methly naphthalene

2 = Cleanup Level is cumulative value of a percentage of all seven carcinogenic PAHs per MTCA Table 708-2

mg/Kg = milligrams per Kilogram or parts per million (ppm)

bsg = below surface grade

DNE = MTCA Cleanup Levels **Do Not Exist** for this constiuent

PAH = polynuclear aromatic hydrocarbon

5 Bold print with yellow highlighting indicates the soil concentration exceeds the MTCA Cleanup Levels

TABLE 3
Water Sample Laboratory Analytical Data For TPH and Select VOCs
Horse Heaven Hills Truck Plaza - 101 Merlot Drive
Prosser, Washington 99350

Sample I.D.	Date Collected	Total Petroleum Hydrocarbons (µg/L)		VOCs by EPA Method 8021B (µg/L)			
		TPH-D by Method NWTPH-Dx	TPH-O by Method NWTPH-Dx	Benzene	Toluene	Ethylbenzene	Total Xylenes
3-12-MW1	3/12/14	< 260	< 410	< 1	< 1	< 1	< 2
3-12-MW2	3/12/14	< 260	< 410	< 1	< 1	< 1	< 2
3-12-E1	3/12/14	**3300**	< 210	NA	NA	NA	NA
Ecology MTCA Method A Groundwater Cleanup Levels (µg/L)							
		500	500	5	1000	700	1000

Notes:

(µg/L) = micrograms per Liter or parts per billion (ppb)

NA = not analyzed

MTCA = Model Toxics Cleanup Act

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

3300 **Bold** print with yellow highlighting indicates the groundwater concentration exceeds the MTCA Method A Cleanup Levels.

TABLE 4
Water Sample Laboratory Analytical Data For PAHs
Horse Heaven Hills Truck Plaza - 101 Merlot Drive
Prosser, Washington 99350

Sample I.D.	Date Collected	Polynuclear Aromatic Hydrocarbons by EPA Method 8270D SIM (µg/L)																	
		Naphthalene [1]	2-Methylnaphthalene [1]	1-Methylnaphthalene [1]	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene [2]	Chrysene [2]	Benzo[b]fluoranthene [2]	Benzo[j,k]fluoranthene [2]	Benzo[a]pyrene [2]	Indeno[1,2,3-c,d]pyrene [2]	Dibenz[a,h]anthracene [2]	Benzo[g,h,i]perylene
3-12-MW1	3/12/14	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094
3-12-MW2	3/12/14	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094
3-12-E1	3/12/14	**510**	**1200**	**830**	56	180	580	660	140	< 52	320.00	**2.9**	**14**	**0.91**	**< 0.26**	**0.32**	**< 0.26**	**< 0.26**	0.64
Ecology MTCA Method A Groundwater Cleanup Levels (µg/L)																			
		160	**160**	**160**	DNE	DNE	DNE	DNE	DNE	DNE	DNE	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	DNE

Notes:

1 = Cleanup Level is total value for naphthalene + 1-methyl naphthalene + 2-methly naphthalene

2 = Cleanup Level is cumulative value of all seven carcinogenic PAHs

µg/L = micrograms per Liter or parts per billion (ppb)

DNE = MTCA Cleanup Levels **Do Not Exist** for this constiuent

PAH = polynuclear aromatic hydrocarbon

160 **Bold** print with yellow highlighting indicates the groundwater concentration exceeds the MTCA Cleanup Levels

APPENDIX A

WORK PLAN
Delineation of Subsurface Petroleum Hydrocarbon Contamination

WORK PLAN

Delineation of Subsurface Petroleum Hydrocarbon Contamination

Horse Heaven Hills Travel Plaza
101 Merlot Drive
Prosser, Washington 99350

Prepared for:
Horse Heaven Hills Travel Plaza
Brian Rogers
465 S.E. 5th St.
North Bend, WA 98045
And
Washington Department of Ecology (DOE)

Prepared By:
Brett Bergeron R.G.

Blue Mountain Environmental Consulting Co., Inc.
PO Box 545/125 Main St.
Waitsburg, Washington 99361
(360) 666-1465

December 17, 2013

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FIGURES

Figure No.	Figure Title
1	SITE LOCATION MAP
2	SITE MAP
3	PROPOSED MONITORING WELL AND CONFIRMATROY SOIL SAMPLE LOCATION MAP

1.0 PROJECT DESCRIPTION

1.1 Purpose and Objectives

This work plan, prepared by Blue Mountain Environmental Consulting Company, Inc. ("BMEC"), presents an approach for conducting additional delineation of the petroleum hydrocarbon (PHC) contamination in the subsurface soils for the Horse Heaven Hills Travel Plaza property located at 101 Merlot Drive, Prosser, Washington (hereafter referred to as the "Site"). If vertical extent of PHC contamination in soils is deep enough, delineation of PHCs in the groundwater below the Site and potentially within the vicinity of the Site may also be warranted.

The main objective of this Work Plan is to develop a sampling and analysis program that will further characterize the nature and extent of subsurface contamination per the Washington Department of Ecology (DOE) guidelines based on the Model Toxics Cleanup Act (MTCA) Cleanup Levels.

Specific objectives for the investigation include:

- Additional delineation of the horizontal and vertical extent of remaining petroleum contaminated soil (PCS) identified beneath the diesel dispensers at concentrations exceeding the MTCA Cleanup Levels during the September 18, 2013 soil investigation.

- Remediation of all PCS identified beneath the diesel dispensers at concentrations exceeding the MTCA Cleanup Levels during the September 18, 2013 soil investigation. PCS remediation shall occur via excavation and proper disposal at a licensed landfill facility. Excavation and confirmation soil sampling shall occur in the vicinity of the diesel dispensers until laboratory analytical results indicate that the PHCs in soil have been remediated to levels below the MTCA Cleanup Levels.

- Backfill and proper compaction of the excavation with clean soil.

- If applicable, delineation of the extent and magnitude of PHCs in groundwater beneath the diesel dispensers at concentrations exceeding the MTCA Cleanup Levels.

- Removal of all existing diesel fuel pumps and associated piping and installation of updated diesel dispensers and associated piping with proper containment design per the 1998 Federal UST regulations.

- Completion of a report documenting the field activities performed during the subsurface soil and groundwater investigation(s) including the results of field activities performed and potential recommendations for future work at the Site.

1.2 Location

Legal Description: Parcel number 1-3594-301-1661-001, in the northwest quarter of the southeast quarter of Section 35, Township 9 North, Range 24 East, Willamette Meridian, Benton County. The address for the Site is 101 Merlot Drive in Prosser, Washington 99350.

1.3 Organization

Project Manager

Brent Bergeron, PG
(503) 913-7870

Blue Mountain Environmental Consulting Company, Inc.
4090 Barrett Drive
Hood River, OR 97031

Site Supervisors

Yancy Meyer
(509) 520-4416

Blue Mountain Environmental Consulting Company, Inc.
PO Box 545/125 Main St.
Waitsburg, WA 99361

1.4 Schedule

The Site investigation will begin as soon as the work plan has been approved by the Client and DOE, and the appropriate subcontractor(s) have been secured. The field investigation (soil sampling and potentially groundwater sampling) is expected to take approximately three to six days for completion of site work and sampling. The field work may require more than one mobilization to the Site. A report on the field investigation and data results would be completed within an estimated timeframe of four to five weeks following completion of all field activities.

1.5 Reports

The project report will include details of all field work performed, a summary of analytical data and related risk-based assessments, laboratory data report, Site and sampling location maps, photographs, beneficial water use survey results (if necessary), and conclusions and recommendations. All risk-based assessments will be in comparison to Washington MTCA Cleanup Levels.

2.0 SITE BACKGROUND

2.1 Description of Provided Information

The Site is defined by a retail petroleum refueling station for standard passenger vehicles, as well as large truck-and-tractor rigs. The Site was developed as a retail fuel facility in 1995. A site investigation was performed at the Site by BMEC personnel on September 18, 2013 and the results of that site investigation indicated that PCS exists beneath several of the diesel fuel dispensers at concentrations exceeding MTCA Cleanup Levels. The approximate depth of the PCS beneath the diesel fuel dispensers was observed to be at a minimum of one foot bsg.

2.2 Physical Setting

The Site is located within the city limits of Prosser, Washington, and is surrounded primarily by commercial properties. The property consists of one parcel of land with improvements and is accessible from Merlot Drive. The Site address is 101 Merlot Drive, Prosser, Washington 99350. The nearest roadway is Interstate I-82 which is approximately 500 feet north of the Site (Figure 1). The nearest surface water body is the Yakima River approximately one mile southeast of the Site. The approximate Site elevation is 720 feet above mean sea level.

2.3 Geology and Hydrogeology

According to the U.S. Department of Agriculture Soil Survey of Yakima County, Washington, the Site is underlain by the Ashue Silt Loam which is considered very deep and moderately well-drained with moderately coarse textures. A typical cross-section of the Ashue Silt Loam includes a 9-inch thick surface layer of light brown to brown loam, underlain by an approximate 15-inch thick layer of light gray, gravelly sandy loam, and further underlain by light yellowish brown and pale brown very gravelly sand up to 60 inches thick.

Geologically, the Site is located in the Yakima Fold Belt east of the Cascade Range in a much dryer climate that receives between 6 to 18 inches of rainfall annually. The Yakima Fold Belt is dominated by east-west trending anticlinal ridges and synclinal valley(s). The near surface soils are formed primarily from deposition of Quaternary sediments that overlie Miocene Columbia River Basalt Group flood basalts. Fine-grained slackwater sediments characterized by rhythmically graded bedding were deposited throughout the Pleistocene atop the Miocene basalts in the area of the Columbia Gorge extending north to the Yakima Valley including in the region surrounding the Site. Volcanic ash deposits and wind-blown loess deposits are also noted throughout the region.

Hydrogeologically, depth to shallow groundwater in the vicinity of the Site varies from 5 to 20 feet bsg. Based on location of the Yakima River in relation to the Site, the groundwater flow direction is presumed to be to the southeast. If necessary due to extensive depth of PCS, depth to

groundwater and groundwater flow direction can be confirmed for the Site via monitoring well installation and assessment.

3.0 SITE INVESTIGATION APPROACH

3.1 Site Investigation

The proposed site investigation consists of the collection and laboratory analysis of soil and groundwater samples. The proposed soil samples will be obtained from the base and sidewalls of the excavation created by the removal of all diesel fuel pump dispensers, as well as from the borings advanced for monitoring well installation. Up to 28 soil samples shall be obtained for laboratory analysis; fourteen confirmatory soil samples from the bottom of the excavation; ten confirmatory soil samples from the sidewalls of the excavation; and four soil samples from the advancement of the monitoring well borings (one per boring). The locations of the proposed soil samples are illustrated on **Figure 3.**

The proposed groundwater samples shall be obtained from four monitoring wells installed in the vicinity of the diesel fuel pump island (one per monitoring well). One of the monitoring wells shall be installed up-gradient of the diesel fuel pump island and three of the monitoring wells shall be installed down-gradient of the diesel fuel pump island. The locations of the proposed monitoring wells are illustrated on **Figure 3.** The proposed monitoring well locations are based on an assumed groundwater gradient to the southeast towards the Yakima River.

Utility locating services, including private locating services (if necessary) shall be utilized prior to the commencement of any intrusive groundwork.

3.1.1 Soil Sampling

The 24 confirmatory soil samples proposed for collection and laboratory analysis in the excavation beneath the diesel fuel pump islands shall be obtained from depths of 3 to 6 inches below the freshly exposed surface subsequent to excavation. The proposed confirmatory soil samples shall be obtained after field screening assessment suggests that PCS has been removed in that immediate area via excavation. Field screening methodology shall consist of a combination of visual, olfactory, and photo-ionization detector (PID) assessment.

The field geologist will visually assess all soil brought to the surface per monitoring well boring, and record the soil on the borehole logs. The sampling technician and/or field geologist will field-screen each section of soil with a PID and the various PID readings will be recorded on the borehole logs. Soil samples will be obtained for laboratory analyses based on a combination of the PID readings, olfactory and visible evidence, and depth of sample. If no PID, olfactory, or visible staining evidence is noted, a soil sample will be collected from the base of the borehole by default. All soil samples will also be field-

screened by sheen testing (adding water to a sample retained in a sampling spoon and checked for the presence of a visible oily sheen).

3.1.2 Monitoring Well Installation

A total of four 2-inch diameter, flush-mounted monitoring wells will be installed in the vicinity of the diesel fuel pump island in an attempt to assess the status of the shallow groundwater beneath the source of diesel fuel PCS. Each monitoring well shall be constructed of schedule 40 PVC with 10 feet of 0.010-slotted screen. In theory, all four monitoring wells should be installed no deeper than 20 feet bsg. Each well shall be completed with a sandpack installed 2-3 feet above the top of the screened interval; a 2- to 3-foot bentonite plug on top of the sandpack; a bentonite/grout mixture to within approximately one foot of the ground surface; and completed with a lock and cap.

3.1.3 Monitoring Well Development and Groundwater Sampling

A minimum of 16 hours shall pass after the installation of each monitoring well, prior to the initialization of monitoring well development. Depth-to-water static level measurements shall be obtained from a notch in the top of casing PVC per monitoring well via a water level meter that has been decontaminated, prior to introduction into each successive monitoring well. Each monitoring well shall be developed by using a peristaltic pump or bladder pump to remove approximately 10 standing well volumes from the well casing while measuring groundwater parameters (i.e., pH, temperature, and conductivity) to assess when stabilization of the aquifer in the vicinity of each specific monitoring well has occurred. When the groundwater parameters have all stabilized [temperature (± 3°F); pH (± 0.1 unit); conductivity (3%)] for three successive readings and subsequent to the removal of approximately 10 standing water well volumes, the monitoring well will be considered to be fully developed. The groundwater parameters shall be recorded on groundwater sampling data sheets and included in the ensuing report.

Immediately subsequent to monitoring well development, groundwater sampling in each well will be conducted using low-flow purging or bailer and rope sampling techniques. During sampling, new tubing or bailers will be lowered down the well casing. Groundwater sample containers will be prepared according to protocol established by the analytical laboratory.

3.1.4 Sample Collection

A fresh pair of latex or Nitrile gloves shall be donned, prior to collection of each successive soil and groundwater sample. Soil samples shall be collected in 4-ounce glass jars and properly sealed. Groundwater samples shall be collected in 1-Liter amber glass containers

preserved with hydrochloric acid or unpreserved depending on which analysis the sample will be subjected to (TPH-Dx or polynuclear aromatic hydrocarbons [PAHs]). The samples will be stored in a cool environment (4 degrees Celsius) until released, with a chain-of-custody, to OnSite Laboratory (OnSite) in Redmond, Washington. All sampling tools will be decontaminated between the collection of successive samples, or disposed of properly.

3.2 Laboratory Analytical Methods

The soil samples will be relinquished to the laboratory for analyses by Northwest Method NWTPH-Dx All groundwater and confirmatory soil samples with TPH-Dx results exceeding MTCA Cleanup Levels (i.e., > 2000 milligrams per Kilogram [mg/Kg]), shall also be analyzed via EPA Method 8270 SIM for PAHs.

3.3 Data Quality Objectives and Sample Analysis

Data quality objectives for the proposed investigation are to generate data of known and documented quality that can be used to determine whether chemicals of potential concern are present above detection levels and at levels that pose an unacceptable risk to receptors. Data will be compared to MTCA Cleanup Levels to determine whether these levels are exceeded and to support decision-making regarding the need for further investigation.

3.4 Quality Assurance

Samples will be obtained according to standard field methods and will be prepared in accordance with protocol established by the analytical laboratory for containers, preservation, storage and transport to the laboratory. A chain-of-custody will be prepared for all samples obtained for laboratory analysis. Appropriate decontamination procedures will be followed to prevent cross contamination of the drilling and sampling equipment between drill holes, as well as the soil and groundwater samples between sample depths and between drilling borehole locations. Any investigation derived waste, soil and groundwater, will be containerized and left on-Site by the drilling subcontractor. During drilling, a continuous geologic log will be prepared describing the subsurface materials encountered, depth to groundwater, presence of saturated zones, and any other pertinent geologic or environmental observations.

3.5 Investigation-Derived Waste Disposal

All soil and water (i.e., groundwater and decontamination water) investigation-derived waste (IDW) shall be containerized in separate 55-gallon drums. Each drum shall be properly labeled, sealed, and temporarily staged onsite at a location approved by the client, prior to future disposal at a licensed waste facility. All gloves, plastic, paper towels, bailers and rope shall be containerized in a plastic trash bag and disposed onsite and standard refuse.

4.0 QUALIFICATIONS

We have prepared this Work Plan in accordance with customary principles and practices in the fields of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. BMEC, Inc. is not responsible for the independent conclusions, opinions or

recommendations made by others based on the records review, site observations, field exploration, or laboratory test data presented in this report.

Environmental assessments and evaluations are inherently limited in that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. For these types of evaluations, it is often necessary to use information prepared by others and BMEC, Inc. cannot be responsible for the accuracy of such information. Additionally, the passage of time may result in a change in the environmental characteristics at this and any other site and surrounding properties. This Work Plan does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. This Work Plan is not a regulatory compliance audit and is not intended to satisfy the requirements of any local, state, or federal real estate transfer laws.

This Work Plan is intended for the sole use of **Horse Heaven Hills and the Washington DOE**. This Work Plan may not be used or relied upon by any other party without the written consent of BMEC, Inc. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

BMEC, Inc. does not warrant the correctness, completeness, current standing, merchantability, or fitness of any information related to records review provided in this Work Plan. Such information is not the product of an independent review conducted by BMEC, Inc., but is only available environmental information obtained by or provided to BMEC, Inc.

5.0 Signature

Blue Mountain Environmental Consulting, Inc.

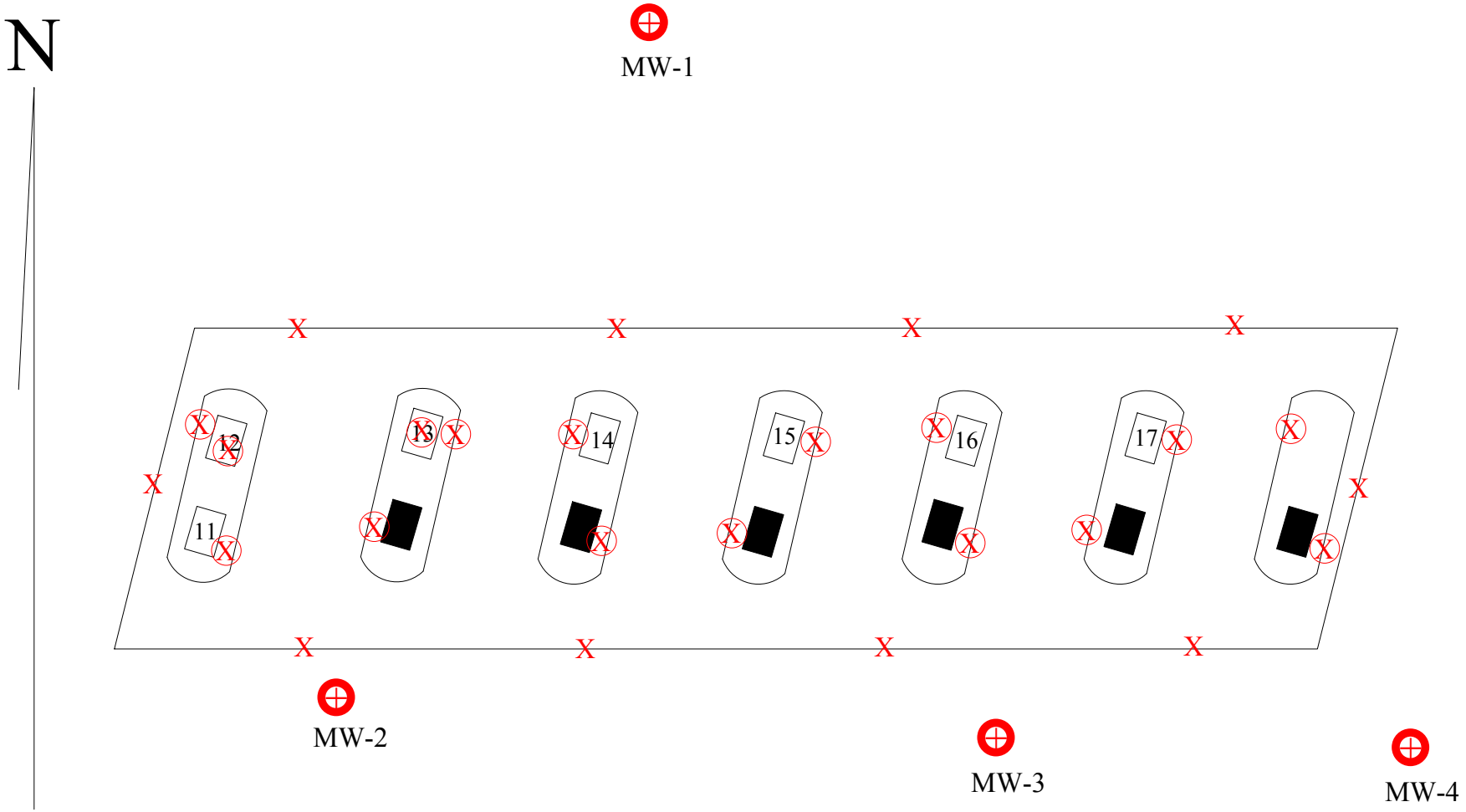
Brent N. Bergeron, PG

FIGURE 1: SITE LOCATION MAP Image Provided by ESRI

SITE LOCATION MAP
Horse Heaven Hills Travel Plaza
101 Merlot Drive
Prosser, WA 99350

Google earth

feet 200
meters 70



Blue Mountain Environmental Consulting Co., Inc.
Horse Heaven Hills Travel Plaza,
101 Merlot Dr., Prosser, WA

PROPOSED SAMPLE LOCATIONS

⊕ = Monitoring Well

X = Soil Sidewall Sample

Ⓧ = Soil Bottom Sample

APPENDIX B

PHOTOGRAPHS

INITIAL CANOPY DEMOLITION

MORE CANOPY DEMOLITION

MORE CANOPY DEMOLITION

CANOPY IS GONE

EXCAVATING AROUND CANOPY PILLAR FOUNDATIONS

IMPACTED SOIL

EXCAVATING AROUND THE CANOPY PILLAR FOUNDATIONS

IMPACTED (GREY) SOIL IN FOREGROUND

STORAGE OF IMPACTED SOIL, CONCRETE AND ASPHALT

REMOVAL OF CANOPY PILLAR FOUNDATIONS

REMOVAL OF CANOPY PILLAR FOUNDATIONS

EXCAVATION AFTER FOUNDATION REMOVAL

EXCAVATION AFTER FOUNDATION REMOVAL

VIEW AT CONTAMINATION SEEPING FROM THE TANK PIT

EXCAVATION OF USTs

CIMG1235.JPG

REMOVAL OF USTs

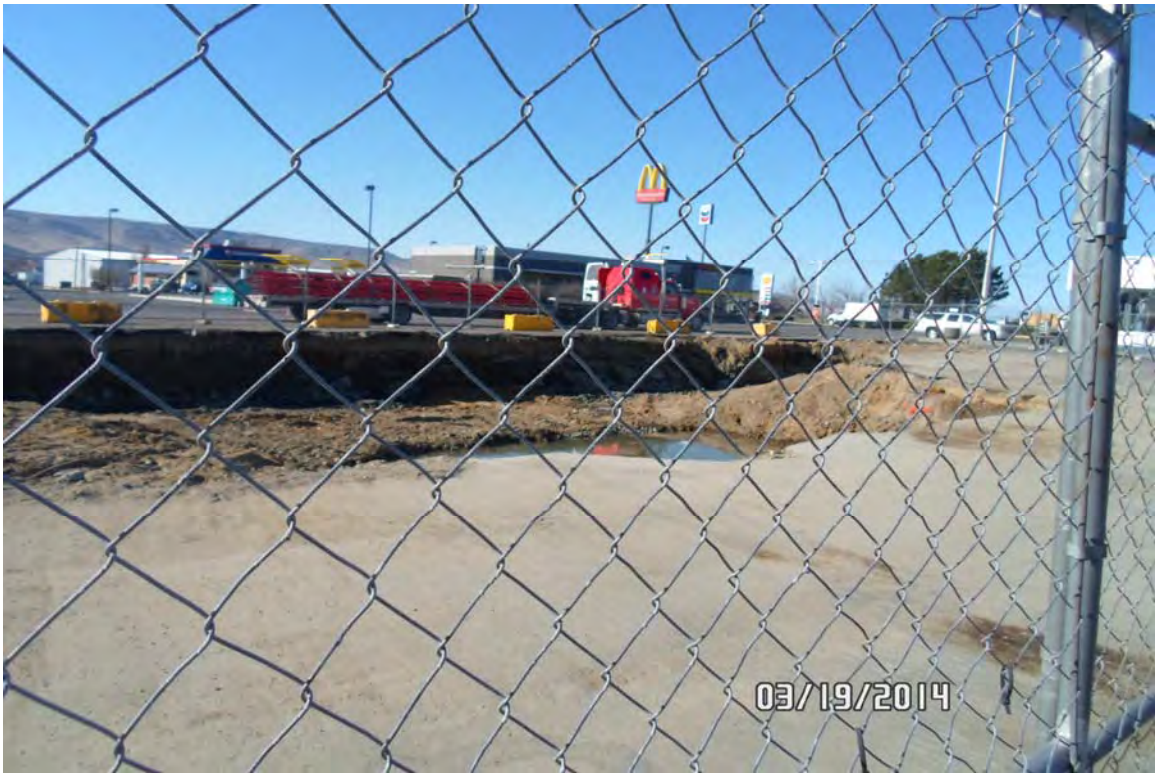
TANK PIT AFTER UST REMOVAL

SITE AFTER REMOVAL OF ISLANDS AND USTs

MICROBE APPLICATION

BACKFILLING EXCAVATION

COMPACTING BACKFILL



SITE AFTER BACKFILL OF PUMP ISLAND EXCAVATION

STOCKPILE STORAGE

SECURE SITE

APPENDIX C

UST PACIFIC RECYCLING RECEIPTS

PACIFIC RECYCLING

315 S. Gum Street • P.O. Box 687
Kennewick, Washington 99336
1.800.647.7893 • P: 509.582.213
F: 509.586.3129
www.pacific-recycling.com

Bring in for payment
40100 lb 08:02AM 03/18/2014
29020 lb 08:24AM 03/18/2014

Ticket # 010511

# of vehicle occupan

On_____

Off_____

N	1	2	3	4

Description: Semi

Grade: Glass / Tank
15,000 gallon diesel tank

PACIFIC RECYCLING™

315 S. Gum Street • P.O. Box 6874
Kennewick, Washington 99336
1.800.647.7893 • P: 509.582.2134
F: 509.586.3129
www.pacific-recycling.com

Bring in for payment

39780 lb 04:24PM 03/18/2014

28860 lb 04:45PM 03/18/2014

Ticket # 010594

# of vehicle occupants

On 1

Off

IN 1 2 3 4

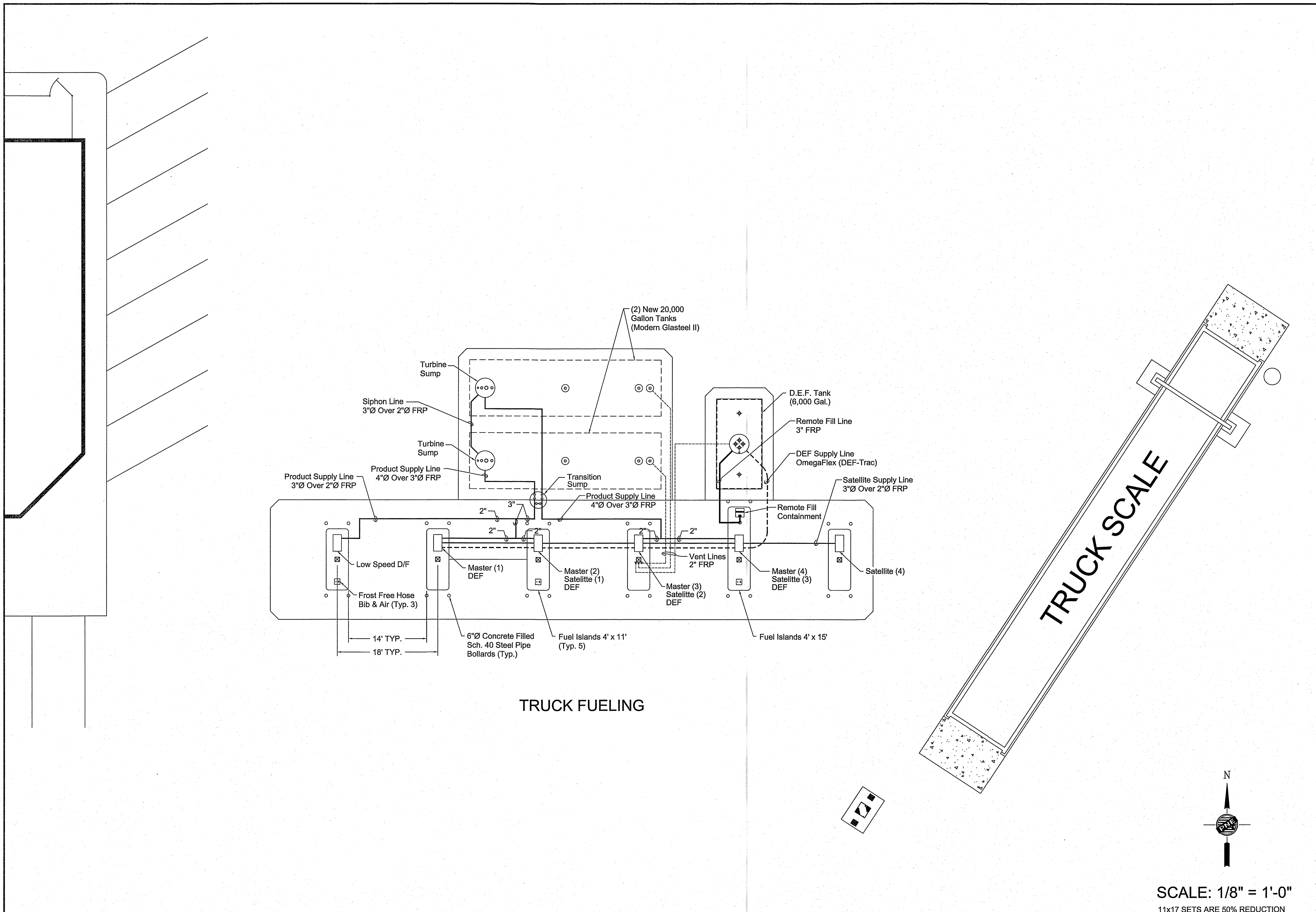
Description: 15,000 gallon Diesel tank

purple Semi

Grade: Glass tank

APPENDIX D

NEW UST SYSTEM SCHEMATICS



Corporate Office
1081 Columbia Blvd.
Longview, WA 98632
Phone(360) 423-2245
Fax(360) 423-2272
www.pnecorp.com

Commercial Construction » Fuel Facility Construction » Environmental Services » Design & Layout Services

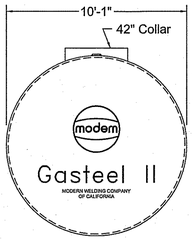
Horse Heaven Hills Truck Stop
101 Merlot Drive
Prosser, Washington

Drawn by: W.D.J.
Approved: J.J.
Issued Date: 03/26/14
Revisions

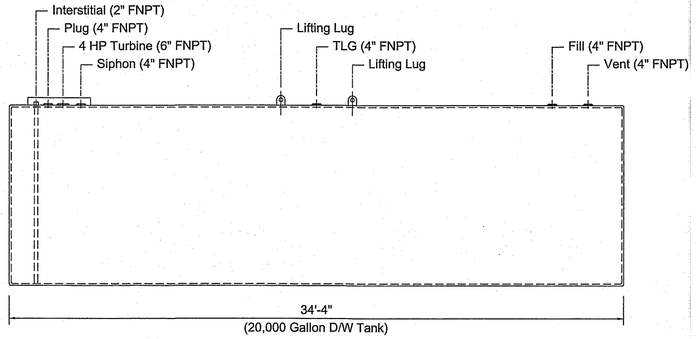
Drawing Title:
Fuel System Layout

FIG. 1

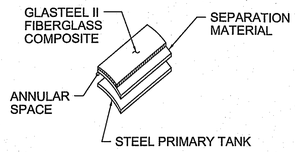
Project No:



END VIEW SCALE: 1/4" = 1'-0"
DIESEL TANK



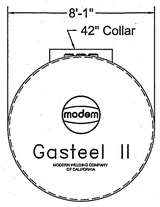
SECTION SCALE: 1/4" = 1'-0"
DIESEL TANK



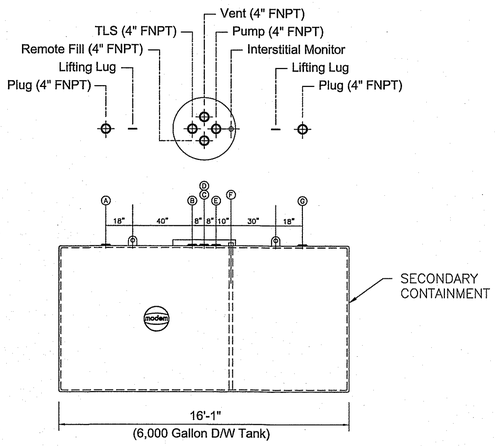
GLASTEEL II
CONSTRUCTION DETAILS

NOTE:
THIS TANK ARRIVES AT THE JOBSITE UNDER VACUUM AND DOES NOT REQUIRE FURTHER INTEGRITY TEST. IF JOBSITE AIR PRESSURE TEST REQUIRED THE PRIMARY (INNER) TANK MAY BE PRESSURIZED UP TO 5 P.S.I. THE SECONDARY (OUTER) TANK MAY BE TESTED BY VACUUM ONLY. THE OUTER TANK RECEIVES A 35,000 VOLTS HOLIDAY TEST AT THE FACTORY

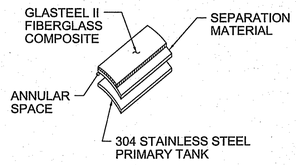
1	20,000 GALLON GLASTEEL II JACKETED UNDERGROUND TANK	PRODUCT: DIESEL	WEIGHT: 19,580 LBS.



END VIEW SCALE: 1/4" = 1'-0"
DEF TANK



SECTION SCALE: 1/4" = 1'-0"
DEF TANK



GLASTEEL II
CONSTRUCTION DETAILS

NOTE:
- TANK SHALL BEAR THE UL. 1746 LISTING MARK FOR SECONDARY CONTAINMENT UNDERGROUND TANK FOR FLAMMABLE LIQUID STORAGE.
- TANK SHALL MEET THE REQUIREMENTS OF NFPA 30 & 31.
- TANK SHALL MEET THE REQUIREMENTS OF UFC.
- TANK SHALL MEET THE REQUIREMENTS OF SCAQMD METHANOL COMPATIBILITY RULE 1170.
- TANK SHALL HAVE 30 YEAR LIMITED WARRANTY.

NOTE:
THIS TANK ARRIVES AT THE JOBSITE UNDER VACUUM AND DOES NOT REQUIRE FURTHER INTEGRITY TEST. IF JOBSITE AIR PRESSURE TEST REQUIRED THE PRIMARY (INNER) TANK MAY BE PRESSURIZED UP TO 5 P.S.I. THE SECONDARY (OUTER) TANK MAY BE TESTED BY VACUUM ONLY. THE OUTER TANK RECEIVES A 35,000 VOLTS HOLIDAY TEST AT THE FACTORY

NOTE:
PRIMARY TANK & ALL OPENINGS 304 STAINLESS STEEL

2	6,000 GALLON GLASTEEL II JACKETED UNDERGROUND TANK	PRODUCT: DEF	WEIGHT: 8,000 LBS.

Corporate Office
1081 Columbia Blvd.
Longview, WA 98632
Phone(360) 423-2345
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www.pnecorp.com

Horse Heaven Hills Truck Stop
101 Merlot Drive
Prosser, Washington

Drawn by: W.D.J.
Approved: J.J.

Issued Date: 03/26/14

Revisions

Drawing Title:
Tank Details

FIG. 2

Project No:

Environmental Services >>> Design & Layout Services >>> Commercial Construction >>> Fuel Facility Construction

APPENDIX E

LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY DOCUMENTATION

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

March 17, 2014

Peter Trabusiner
Blue Mountain Environmental, Inc.
1500 Adair Drive
Richland, WA 99352

Re: Analytical Data for Project E2014/0102
Laboratory Reference No. 1403-100

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on March 14, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

Case Narrative

Samples were collected on March 11 and 12, 2014 and received by the laboratory on March 14, 2014. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**3-12-MW1**					
Laboratory ID:	03-100-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	3-14-14	3-17-14	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	3-14-14	3-17-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				
Client ID:	**3-12-MW4**					
Laboratory ID:	03-100-02					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	3-14-14	3-17-14	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	3-14-14	3-17-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				
Client ID:	**3-12-E1**					
Laboratory ID:	03-100-03					
Diesel Fuel #2	**3300**	29	NWTPH-Dx	3-14-14	3-17-14	
Lube Oil Range Organics	**ND**	210	NWTPH-Dx	3-14-14	3-17-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0314W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	3-14-14	3-17-14	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	3-14-14	3-17-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-100-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*81*	*80*	*50-150*			

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**3-11-SP1**					
Laboratory ID:	03-100-04					
Diesel Fuel #2	**2700**	29	NWTPH-Dx	3-14-14	3-14-14	
Lube Oil Range Organics	**ND**	180	NWTPH-Dx	3-14-14	3-14-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**3-11-SP2**					
Laboratory ID:	03-100-05					
Diesel Fuel #2	**10000**	140	NWTPH-Dx	3-14-14	3-17-14	
Lube Oil Range Organics	**ND**	700	NWTPH-Dx	3-14-14	3-17-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**3-11-SP3**					
Laboratory ID:	03-100-06					
Diesel Fuel #2	**6100**	140	NWTPH-Dx	3-14-14	3-17-14	
Lube Oil Range Organics	**ND**	410	NWTPH-Dx	3-14-14	3-17-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0314S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	3-14-14	3-14-14	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-088-11										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	X1
Surrogate:											
o-Terphenyl						*99*	*98*	*50-150*			

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**3-12-MW1**					
Laboratory ID:	03-100-01					
Naphthalene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
2-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
1-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Fluorene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Phenanthrene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Anthracene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Pyrene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*40 - 107*				
Pyrene-d10	*80*	*41 - 106*				
Terphenyl-d14	*83*	*44 - 124*				

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**3-12-MW4**					
Laboratory ID:	03-100-02					
Naphthalene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
2-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
1-Methylnaphthalene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthylene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Fluorene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Phenanthrene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Anthracene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Fluoranthene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Pyrene	**ND**	0.094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*40 - 107*				
Pyrene-d10	*80*	*41 - 106*				
Terphenyl-d14	*86*	*44 - 124*				

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**3-12-E1**					
Laboratory ID:	03-100-03					
Naphthalene	**510**	52	EPA 8270D/SIM	3-14-14	3-14-14	
2-Methylnaphthalene	**1200**	52	EPA 8270D/SIM	3-14-14	3-14-14	
1-Methylnaphthalene	**830**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthylene	**56**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthene	**180**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Fluorene	**580**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Phenanthrene	**660**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Anthracene	**140**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Fluoranthene	**ND**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Pyrene	**320**	52	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]anthracene	**2.9**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Chrysene	**14**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[b]fluoranthene	**0.91**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo(j,k)fluoranthene	**ND**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]pyrene	**0.32**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Dibenz[a,h]anthracene	**ND**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[g,h,i]perylene	**0.64**	0.26	EPA 8270D/SIM	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	.--	*40 - 107*				S
Pyrene-d10	.--	*41 - 106*				S
Terphenyl-d14	.--	*44 - 124*				S

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0314W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Fluorene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Anthracene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Pyrene	**ND**	0.10	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Chrysene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*88*	*40 - 107*				
Pyrene-d10	*78*	*41 - 106*				
Terphenyl-d14	*87*	*44 - 124*				

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0314W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.304**	**0.394**	0.500	0.500	61	79	31 - 110	26	46	
Acenaphthylene	**0.209**	**0.217**	0.500	0.500	42	43	40 - 118	4	43	
Acenaphthene	**0.351**	**0.386**	0.500	0.500	70	77	38 - 112	9	40	
Fluorene	**0.371**	**0.411**	0.500	0.500	74	82	45 - 114	10	41	
Phenanthrene	**0.381**	**0.416**	0.500	0.500	76	83	47 - 112	9	36	
Anthracene	**0.400**	**0.418**	0.500	0.500	80	84	46 - 135	4	37	
Fluoranthene	**0.424**	**0.443**	0.500	0.500	85	89	51 - 127	4	35	
Pyrene	**0.440**	**0.437**	0.500	0.500	88	87	50 - 125	1	37	
Benzo[a]anthracene	**0.464**	**0.476**	0.500	0.500	93	95	46 - 123	3	34	
Chrysene	**0.402**	**0.414**	0.500	0.500	80	83	49 - 120	3	34	
Benzo[b]fluoranthene	**0.503**	**0.493**	0.500	0.500	101	99	46 - 126	2	37	
Benzo(j,k)fluoranthene	**0.377**	**0.411**	0.500	0.500	75	82	43 - 125	9	39	
Benzo[a]pyrene	**0.322**	**0.334**	0.500	0.500	64	67	44 - 129	4	37	
Indeno(1,2,3-c,d)pyrene	**0.395**	**0.413**	0.500	0.500	79	83	40 - 124	4	42	
Dibenz[a,h]anthracene	**0.393**	**0.413**	0.500	0.500	79	83	35 - 122	5	44	
Benzo[g,h,i]perylene	**0.385**	**0.400**	0.500	0.500	77	80	37 - 122	4	45	
Surrogate:										
2-Fluorobiphenyl					*74*	*86*	*40 - 107*			
Pyrene-d10					*79*	*83*	*41 - 106*			
Terphenyl-d14					*86*	*89*	*44 - 124*			

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

BTEX
EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**3-12-MW1**					
Laboratory ID:	03-100-01					
Benzene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Toluene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Ethyl Benzene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
m,p-Xylene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
o-Xylene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*71-112*				
Client ID:	**3-12-MW4**					
Laboratory ID:	03-100-02					
Benzene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Toluene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Ethyl Benzene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
m,p-Xylene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
o-Xylene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*71-112*				

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

BTEX
EPA 8021B
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0314W1					
Benzene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Toluene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Ethyl Benzene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
m,p-Xylene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
o-Xylene	**ND**	1.0	EPA 8021B	3-14-14	3-14-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*71-112*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-100-01										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*93*	*92*	*71-112*			
MATRIX SPIKES											
Laboratory ID:	03-100-01										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**51.0**	**50.1**	50.0	50.0	ND	**102**	**100**	78-120	2	12	
Toluene	**51.2**	**50.5**	50.0	50.0	ND	**102**	**101**	80-121	1	12	
Ethyl Benzene	**51.2**	**50.1**	50.0	50.0	ND	**102**	**100**	81-120	2	13	
m,p-Xylene	**51.7**	**50.4**	50.0	50.0	ND	**103**	**101**	81-119	3	13	
o-Xylene	**51.3**	**49.9**	50.0	50.0	ND	**103**	**100**	79-117	3	13	
Surrogate:											
Fluorobenzene						*93*	*95*	*71-112*			

Date of Report: March 17, 2014
Samples Submitted: March 14, 2014
Laboratory Reference: 1403-100
Project: E2014/0102

% MOISTURE

Date Analyzed: 3-14-14

Client ID	Lab ID	% Moisture
3-11-SP1	03-100-04	13
3-11-SP2	03-100-05	13
3-11-SP3	03-100-06	11

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: BMEC
Project Number: E2014/0102
Project Name: HORSE HEAVEN HILLS PROSSER
Project Manager: P. TRABUSINER
Sampled by: Y. MEYER

Turnaround Request (in working days)
(Check One) Y.M.
☐ Same Day ☒ 1 Day ~~☐ 3 Days~~
☐ 2 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 03-100

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	BTEX 8021	% Moisture
1	3-12-MW1 DB.	3-12-14	1206	H_2O	6				X				X								X	
2	3-12-~~MW2~~ MW4	↓	1250	↓	6				X				X								X	
3	3-12-E1	↓	1320	↓	4				X				X									
4	3-11-SP1	3-11-14	1048	SOIL	1				X													X
5	3-11-SP2	↓	11:15	↓	↓				X													↓
6	3-11-SP3	↓	13:07	↓	↓				X													

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	3-12-14	1700	
Received		OSE	3/13/14	1050	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 1, 2014

Peter Trabusiner
Blue Mountain Environmental, Inc.
1500 Adair Drive
Richland, WA 99352

Re: Analytical Data for Project E2014/0102; Horse Heaven Hills
Laboratory Reference No. 1403-166

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on March 24, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

Case Narrative

Samples were collected on March 11, 12, 13, 19, and 20, 2014 and received by the laboratory on March 24, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

BTEX by EPA 8021B Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

PAHs EPA 8270D/SIM Analysis

Interferences present in the matrixes of many of the samples necessitated dilution. The PQLs for these samples are therefore raised.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-1**					
Laboratory ID:	03-166-01					
Diesel Fuel #2	**670**	28	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				
Client ID:	**03-19-SW-2**					
Laboratory ID:	03-166-02					
Diesel Fuel #2	**4300**	30	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	360	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*61*	*50-150*				
Client ID:	**03-19-SW-3**					
Laboratory ID:	03-166-03					
Diesel Fuel #2	**1400**	28	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	130	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**03-19-SW-4**					
Laboratory ID:	03-166-04					
Diesel Fuel #2	**2100**	31	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	180	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*69*	*50-150*				
Client ID:	**03-19-SW-5**					
Laboratory ID:	03-166-05					
Diesel Fuel #2	**2200**	31	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	170	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**03-19-SW-6**					
Laboratory ID:	03-166-06					
Diesel Fuel #2	**1800**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	220	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-7**					
Laboratory ID:	03-166-07					
Diesel Fuel #2	**880**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	130	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				
Client ID:	**03-19-SW-8**					
Laboratory ID:	03-166-08					
Diesel Fuel #2	**1300**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	130	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*112*	*50-150*				
Client ID:	**03-19-SW-9**					
Laboratory ID:	03-166-09					
Diesel Fuel #2	**1300**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	160	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				
Client ID:	**03-19-SW-10**					
Laboratory ID:	03-166-10					
Diesel Fuel #2	**1600**	28	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	220	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				
Client ID:	**03-19-SW-11**					
Laboratory ID:	03-166-11					
Diesel Range Organics	**ND**	31	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*66*	*50-150*				
Client ID:	**03-19-SW-12**					
Laboratory ID:	03-166-12					
Diesel Range Organics	**ND**	28	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-13**					
Laboratory ID:	03-166-13					
Diesel Fuel #2	**81**	27	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	58	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*67*	*50-150*				
Client ID:	**03-19-TP-01**					
Laboratory ID:	03-166-14					
Diesel Fuel #2	**1900**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	200	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**03-19-TP-02**					
Laboratory ID:	03-166-15					
Diesel Fuel #2	**2100**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	240	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*119*	*50-150*				
Client ID:	**03-19-TP-03**					
Laboratory ID:	03-166-16					
Diesel Fuel #2	**4600**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	290	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**03-19-TP-04**					
Laboratory ID:	03-166-17					
Diesel Fuel #2	**1200**	33	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	180	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				
Client ID:	**03-19-TP-05**					
Laboratory ID:	03-166-18					
Diesel Fuel #2	**6200**	140	NWTPH-Dx	3-25-14	3-27-14	
Lube Oil	**890**	290	NWTPH-Dx	3-25-14	3-27-14	N1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-06**					
Laboratory ID:	03-166-19					
Diesel Fuel #2	**4000**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil	**720**	58	NWTPH-Dx	3-25-14	3-26-14	N1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				
Client ID:	**03-13-SS1**					
Laboratory ID:	03-166-20					
Diesel Fuel #2	**2500**	29	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	200	NWTPH-Dx	3-25-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**03-13-SS2**					
Laboratory ID:	03-166-21					
Diesel Fuel #2	**1100**	29	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	140	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**03-13-SS3**					
Laboratory ID:	03-166-22					
Diesel Fuel #2	**2000**	33	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	200	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**03-13-SS4**					
Laboratory ID:	03-166-23					
Diesel Fuel #2	**2100**	29	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	160	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**03-13-SS5**					
Laboratory ID:	03-166-24					
Diesel Fuel #2	**7800**	140	NWTPH-Dx	3-26-14	3-27-14	
Lube Oil Range Organics	**ND**	400	NWTPH-Dx	3-26-14	3-27-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS6**					
Laboratory ID:	03-166-25					
Diesel Fuel #2	**5900**	140	NWTPH-Dx	3-26-14	3-27-14	
Lube Oil Range Organics	**ND**	350	NWTPH-Dx	3-26-14	3-27-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**03-13-SS7**					
Laboratory ID:	03-166-26					
Diesel Fuel #2	**7900**	140	NWTPH-Dx	3-26-14	3-27-14	
Lube Oil Range Organics	**ND**	480	NWTPH-Dx	3-26-14	3-27-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**03-13-SS8**					
Laboratory ID:	03-166-27					
Diesel Fuel #2	**4500**	31	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	280	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**03-13-SS9**					
Laboratory ID:	03-166-28					
Diesel Fuel #2	**3800**	27	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	210	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**03-13-SS10**					
Laboratory ID:	03-166-29					
Diesel Fuel #2	**4600**	28	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	350	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**03-13-SS11**					
Laboratory ID:	03-166-30					
Diesel Fuel #2	**3800**	31	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	290	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS12**					
Laboratory ID:	03-166-31					
Diesel Fuel #2	**1300**	29	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	140	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*122*	*50-150*				
Client ID:	**03-13-SS13**					
Laboratory ID:	03-166-32					
Diesel Fuel #2	**690**	29	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	83	NWTPH-Dx	3-26-14	3-26-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				
Client ID:	**03-13-SS14**					
Laboratory ID:	03-166-40					
Diesel Fuel #2	**140**	28	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	3-26-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**03-11-SP-4**					
Laboratory ID:	03-166-41					
Diesel Fuel #2	**9800**	160	NWTPH-Dx	3-24-14	3-25-14	
Lube Oil Range Organics	**ND**	530	NWTPH-Dx	3-24-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**03-11-SP-5**					
Laboratory ID:	03-166-42					
Diesel Fuel #2	**4300**	30	NWTPH-Dx	3-24-14	3-24-14	
Lube Oil Range Organics	**ND**	210	NWTPH-Dx	3-24-14	3-24-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**03-11-SP-6**					
Laboratory ID:	03-166-43					
Diesel Fuel #2	**3600**	31	NWTPH-Dx	3-24-14	3-24-14	
Lube Oil Range Organics	**ND**	160	NWTPH-Dx	3-24-14	3-24-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

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NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-12-SP-7**					
Laboratory ID:	03-166-44					
Diesel Fuel #2	**3600**	32	NWTPH-Dx	3-24-14	3-24-14	
Lube Oil Range Organics	**ND**	210	NWTPH-Dx	3-24-14	3-24-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**03-12-SP-8**					
Laboratory ID:	03-166-45					
Diesel Fuel #2	**17000**	170	NWTPH-Dx	3-24-14	3-25-14	
Lube Oil Range Organics	**ND**	820	NWTPH-Dx	3-24-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**03-12-SP-9**					
Laboratory ID:	03-166-46					
Diesel Fuel #2	**5100**	31	NWTPH-Dx	3-24-14	3-24-14	
Lube Oil Range Organics	**ND**	310	NWTPH-Dx	3-24-14	3-24-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**03-12-SP-10**					
Laboratory ID:	03-166-47					
Diesel Fuel #2	**10000**	160	NWTPH-Dx	3-24-14	3-25-14	
Lube Oil Range Organics	**ND**	480	NWTPH-Dx	3-24-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

Date of Report: April 1, 2014
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Project: E2014/0102; Horse Heaven Hills

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0324S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	3-24-14	3-24-14	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	3-24-14	3-24-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Laboratory ID:	MB0325S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	3-25-14	3-26-14	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Laboratory ID:	MB0326S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	3-26-14	3-26-14	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	3-26-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
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NWTPH-Dx
DUPLICATE QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
Laboratory ID:	03-166-19										
	ORIG	DUP									
Diesel Fuel #2	**3490**	**2640**	NA	NA		NA		NA	28	NA	
Lube Oil	**626**	**530**	NA	NA		NA		NA	17	NA	N1
Surrogate:											
o-Terphenyl						*72*	*106*	*50-150*			
Laboratory ID:	03-166-20										
	ORIG	DUP									
Diesel Fuel #2	**2140**	**1690**	NA	NA		NA		NA	23	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	U1
Surrogate:											
o-Terphenyl						*103*	*91*	*50-150*			
Laboratory ID:	03-166-21										
	ORIG	DUP									
Diesel Fuel #2	**942**	**924**	NA	NA		NA		NA	2	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	U1
Surrogate:											
o-Terphenyl						*82*	*88*	*50-150*			
Laboratory ID:	03-166-29										
	ORIG	DUP									
Diesel Fuel #2	**4030**	**3860**	NA	NA		NA		NA	4	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	U1
Surrogate:											
o-Terphenyl						*88*	*88*	*50-150*			
Laboratory ID:	03-166-47										
	ORIG	DUP									
Diesel Fuel #2	**7580**	**7490**	NA	NA		NA		NA	1	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	U1
Surrogate:											
o-Terphenyl						*89*	*84*	*50-150*			

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Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-1**					
Laboratory ID:	03-166-01					
Naphthalene	**0.019**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**0.015**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**0.024**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**0.017**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**0.0075**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**0.030**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*92*	*43 - 116*				
Pyrene-d10	*98*	*33 - 124*				
Terphenyl-d14	*94*	*38 - 125*				

Date of Report: April 1, 2014
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-2**					
Laboratory ID:	03-166-02					
Naphthalene	**0.18**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
2-Methylnaphthalene	**0.041**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
1-Methylnaphthalene	**0.056**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthylene	**0.047**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthene	**0.21**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Fluorene	**0.87**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Phenanthrene	**0.47**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Anthracene	**0.22**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Fluoranthene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Pyrene	**0.44**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]anthracene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Chrysene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]pyrene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.040	EPA 8270D/SIM	3-27-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*63*	*43 - 116*				
Pyrene-d10	*119*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-3**					
Laboratory ID:	03-166-03					
Naphthalene	**0.061**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
2-Methylnaphthalene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
1-Methylnaphthalene	**0.066**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthene	**0.079**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Fluorene	**0.26**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Phenanthrene	**0.13**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Anthracene	**0.095**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Pyrene	**0.17**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Chrysene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*93*	*43 - 116*				
Pyrene-d10	*97*	*33 - 124*				
Terphenyl-d14	*94*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-4**					
Laboratory ID:	03-166-04					
Naphthalene	**0.11**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
2-Methylnaphthalene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
1-Methylnaphthalene	**0.15**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthylene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthene	**0.13**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Fluorene	**0.43**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Phenanthrene	**0.30**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Anthracene	**0.086**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Pyrene	**0.17**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]anthracene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Chrysene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]pyrene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*93*	*43 - 116*				
Pyrene-d10	*100*	*33 - 124*				
Terphenyl-d14	*98*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-5**					
Laboratory ID:	03-166-05					
Naphthalene	**0.072**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
2-Methylnaphthalene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
1-Methylnaphthalene	**0.052**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthylene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthene	**0.065**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Fluorene	**0.14**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Phenanthrene	**0.054**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Anthracene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Fluoranthene	**0.044**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Pyrene	**0.13**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]anthracene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Chrysene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]pyrene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.041	EPA 8270D/SIM	3-27-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*43 - 116*				
Pyrene-d10	*94*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-6**					
Laboratory ID:	03-166-06					
Naphthalene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
2-Methylnaphthalene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
1-Methylnaphthalene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthylene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Acenaphthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Fluorene	**0.047**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Phenanthrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Anthracene	**0.049**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Pyrene	**0.12**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]anthracene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Chrysene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[a]pyrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*43 - 116*				
Pyrene-d10	*94*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

Date of Report: April 1, 2014
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-7**					
Laboratory ID:	03-166-07					
Naphthalene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
2-Methylnaphthalene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
1-Methylnaphthalene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthylene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Fluorene	**0.017**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Phenanthrene	**0.0089**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Anthracene	**0.016**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Fluoranthene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Pyrene	**0.039**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]anthracene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Chrysene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[b]fluoranthene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo(j,k)fluoranthene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]pyrene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Dibenz[a,h]anthracene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[g,h,i]perylene	**ND**	0.0076	EPA 8270D/SIM	3-27-14	4-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*43 - 116*				
Pyrene-d10	*92*	*33 - 124*				
Terphenyl-d14	*85*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-8**					
Laboratory ID:	03-166-08					
Naphthalene	**0.026**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
2-Methylnaphthalene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
1-Methylnaphthalene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthylene	**0.0086**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthene	**0.021**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Fluorene	**0.019**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Phenanthrene	**0.016**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Anthracene	**0.018**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Fluoranthene	**0.029**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Pyrene	**0.093**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]anthracene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Chrysene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[b]fluoranthene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]pyrene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[g,h,i]perylene	**ND**	0.0078	EPA 8270D/SIM	3-27-14	4-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*43 - 116*				
Pyrene-d10	*104*	*33 - 124*				
Terphenyl-d14	*88*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-9**					
Laboratory ID:	03-166-09					
Naphthalene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
2-Methylnaphthalene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
1-Methylnaphthalene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthylene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Fluorene	**0.012**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Phenanthrene	**0.0080**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Anthracene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Fluoranthene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Pyrene	**0.031**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]anthracene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Chrysene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[b]fluoranthene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo(j,k)fluoranthene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]pyrene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Dibenz[a,h]anthracene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[g,h,i]perylene	**ND**	0.0077	EPA 8270D/SIM	3-27-14	4-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*43 - 116*				
Pyrene-d10	*87*	*33 - 124*				
Terphenyl-d14	*79*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-10**					
Laboratory ID:	03-166-10					
Naphthalene	**0.0084**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
2-Methylnaphthalene	**0.012**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
1-Methylnaphthalene	**0.027**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthylene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Acenaphthene	**0.0094**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Fluorene	**0.032**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Phenanthrene	**0.018**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Anthracene	**0.010**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Fluoranthene	**0.016**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Pyrene	**0.052**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]anthracene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Chrysene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[b]fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo(j,k)fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[a]pyrene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Dibenz[a,h]anthracene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Benzo[g,h,i]perylene	**ND**	0.0074	EPA 8270D/SIM	3-27-14	4-1-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*43 - 116*				
Pyrene-d10	*95*	*33 - 124*				
Terphenyl-d14	*86*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-11**					
Laboratory ID:	03-166-11					
Naphthalene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.0082	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*43 - 116*				
Pyrene-d10	*94*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-12**					
Laboratory ID:	03-166-12					
Naphthalene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*43 - 116*				
Pyrene-d10	*93*	*33 - 124*				
Terphenyl-d14	*91*	*38 - 125*				

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Samples Submitted: March 24, 2014
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Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-13**					
Laboratory ID:	03-166-13					
Naphthalene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.0073	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*43 - 116*				
Pyrene-d10	*93*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-01**					
Laboratory ID:	03-166-14					
Naphthalene	**0.057**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
2-Methylnaphthalene	**0.063**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
1-Methylnaphthalene	**0.096**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Acenaphthylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Acenaphthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Fluorene	**0.12**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Phenanthrene	**0.045**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Pyrene	**0.090**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Chrysene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-29-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*87*	*43 - 116*				
Pyrene-d10	*94*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-02**					
Laboratory ID:	03-166-15					
Naphthalene	**0.054**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**0.055**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**0.084**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**0.047**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**0.12**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*96*	*43 - 116*				
Pyrene-d10	*98*	*33 - 124*				
Terphenyl-d14	*94*	*38 - 125*				

Date of Report: April 1, 2014
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-03**					
Laboratory ID:	03-166-16					
Naphthalene	**0.16**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**0.18**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**0.14**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**0.068**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**0.20**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**0.13**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**0.076**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**0.17**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*92*	*43 - 116*				
Pyrene-d10	*98*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-04**					
Laboratory ID:	03-166-17					
Naphthalene	**0.15**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**0.46**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**0.34**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**0.056**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**0.12**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**0.12**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**0.044**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**0.10**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.043	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*43 - 116*				
Pyrene-d10	*94*	*33 - 124*				
Terphenyl-d14	*93*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-05**					
Laboratory ID:	03-166-18					
Naphthalene	**0.82**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**2.5**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**1.8**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**0.061**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**0.19**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**0.80**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**0.62**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**0.18**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**0.15**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**0.47**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**0.061**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*112*	*43 - 116*				
Pyrene-d10	*104*	*33 - 124*				
Terphenyl-d14	*97*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-06**					
Laboratory ID:	03-166-19					
Naphthalene	**0.38**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
2-Methylnaphthalene	**1.3**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
1-Methylnaphthalene	**0.95**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthylene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Acenaphthene	**0.14**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Fluorene	**0.46**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Phenanthrene	**0.43**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Anthracene	**0.13**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Fluoranthene	**0.077**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Pyrene	**0.35**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]anthracene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Chrysene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[a]pyrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Benzo[g,h,i]perylene	**ND**	0.039	EPA 8270D/SIM	3-27-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*95*	*43 - 116*				
Pyrene-d10	*101*	*33 - 124*				
Terphenyl-d14	*104*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS1**					
Laboratory ID:	03-166-20					
Naphthalene	**0.058**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
2-Methylnaphthalene	**0.0099**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
1-Methylnaphthalene	**0.035**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Acenaphthylene	**0.011**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Acenaphthene	**0.038**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Fluorene	**0.074**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Phenanthrene	**0.023**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Anthracene	**0.024**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Fluoranthene	**0.014**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Pyrene	**0.059**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[a]anthracene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Chrysene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[b]fluoranthene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[a]pyrene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[g,h,i]perylene	**ND**	0.0078	EPA 8270D/SIM	3-26-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*86*	*43 - 116*				
Pyrene-d10	*67*	*33 - 124*				
Terphenyl-d14	*73*	*38 - 125*				

Date of Report: April 1, 2014
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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS2**					
Laboratory ID:	03-166-21					
Naphthalene	**0.037**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
2-Methylnaphthalene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
1-Methylnaphthalene	**0.021**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Acenaphthylene	**0.0078**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Acenaphthene	**0.025**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Fluorene	**0.061**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Phenanthrene	**0.035**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Anthracene	**0.0093**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Fluoranthene	**0.012**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Pyrene	**0.039**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[a]anthracene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Chrysene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[b]fluoranthene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo(j,k)fluoranthene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[a]pyrene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Dibenz[a,h]anthracene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[g,h,i]perylene	**ND**	0.0076	EPA 8270D/SIM	3-26-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*43 - 116*				
Pyrene-d10	*72*	*33 - 124*				
Terphenyl-d14	*73*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS3**					
Laboratory ID:	03-166-22					
Naphthalene	**0.26**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**0.37**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.40**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**0.065**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**0.18**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.056**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.48**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**0.11**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.19**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.044	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*95*	*43 - 116*				
Pyrene-d10	*82*	*33 - 124*				
Terphenyl-d14	*77*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS4**					
Laboratory ID:	03-166-23					
Naphthalene	**0.073**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**0.066**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.099**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.084**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.14**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.088**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*43 - 116*				
Pyrene-d10	*78*	*33 - 124*				
Terphenyl-d14	*79*	*38 - 125*				

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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS5**					
Laboratory ID:	03-166-24					
Naphthalene	**0.94**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
2-Methylnaphthalene	**0.95**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
1-Methylnaphthalene	**2.0**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Acenaphthylene	**0.073**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Acenaphthene	**0.27**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Fluorene	**1.5**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Phenanthrene	**1.0**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Anthracene	**0.22**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Fluoranthene	**0.18**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Pyrene	**0.50**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[a]anthracene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Chrysene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[a]pyrene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*43 - 116*				
Pyrene-d10	*119*	*33 - 124*				
Terphenyl-d14	*93*	*38 - 125*				

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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS6**					
Laboratory ID:	03-166-25					
Naphthalene	**1.4**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
2-Methylnaphthalene	**2.7**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
1-Methylnaphthalene	**2.0**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Acenaphthylene	**0.058**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Acenaphthene	**0.21**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Fluorene	**1.1**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Phenanthrene	**0.78**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Anthracene	**0.16**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Fluoranthene	**0.081**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Pyrene	**0.39**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[a]anthracene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Chrysene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[b]fluoranthene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo(j,k)fluoranthene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[a]pyrene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Dibenz[a,h]anthracene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Benzo[g,h,i]perylene	**ND**	0.037	EPA 8270D/SIM	3-26-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*43 - 116*				
Pyrene-d10	*117*	*33 - 124*				
Terphenyl-d14	*92*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS7**					
Laboratory ID:	03-166-26					
Naphthalene	**0.98**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**1.3**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**1.1**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**0.10**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**0.41**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.22**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**1.2**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**0.22**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**0.049**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.36**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*103*	*43 - 116*				
Pyrene-d10	*75*	*33 - 124*				
Terphenyl-d14	*88*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS8**					
Laboratory ID:	03-166-27					
Naphthalene	**0.65**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**1.6**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.72**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**0.050**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.38**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.39**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**0.068**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.10**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*93*	*43 - 116*				
Pyrene-d10	*83*	*33 - 124*				
Terphenyl-d14	*78*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS9**					
Laboratory ID:	03-166-28					
Naphthalene	**0.63**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**0.31**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.61**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**0.045**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**0.064**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.14**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.31**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**0.096**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.15**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.036	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*93*	*43 - 116*				
Pyrene-d10	*82*	*33 - 124*				
Terphenyl-d14	*84*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS10**					
Laboratory ID:	03-166-29					
Naphthalene	**0.26**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**0.060**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.22**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**0.049**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.25**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.18**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**0.061**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**0.042**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.19**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*43 - 116*				
Pyrene-d10	*79*	*33 - 124*				
Terphenyl-d14	*80*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
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Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS11**					
Laboratory ID:	03-166-30					
Naphthalene	**0.25**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**0.27**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.23**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**0.062**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**0.067**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**0.12**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.19**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**0.066**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.15**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.041	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*100*	*43 - 116*				
Pyrene-d10	*83*	*33 - 124*				
Terphenyl-d14	*84*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS12**					
Laboratory ID:	03-166-31					
Naphthalene	**0.055**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**0.090**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**0.064**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**0.055**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.084**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.039	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*43 - 116*				
Pyrene-d10	*77*	*33 - 124*				
Terphenyl-d14	*72*	*38 - 125*				

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PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS13**					
Laboratory ID:	03-166-32					
Naphthalene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**0.067**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.038	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*71*	*43 - 116*				
Pyrene-d10	*79*	*33 - 124*				
Terphenyl-d14	*74*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS14**					
Laboratory ID:	03-166-40					
Naphthalene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
2-Methylnaphthalene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
1-Methylnaphthalene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthylene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Acenaphthene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Fluorene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Phenanthrene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Anthracene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Pyrene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]anthracene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Chrysene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[a]pyrene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.0074	EPA 8270D/SIM	3-26-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*83*	*43 - 116*				
Pyrene-d10	*73*	*33 - 124*				
Terphenyl-d14	*77*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0326S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	3-26-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*88*	*43 - 116*				
Pyrene-d10	*87*	*33 - 124*				
Terphenyl-d14	*87*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0327S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	3-27-14	3-27-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*105*	*43 - 116*				
Pyrene-d10	*98*	*33 - 124*				
Terphenyl-d14	*100*	*38 - 125*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0326S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0651**	**0.0661**	0.0833	0.0833	78	79	45 - 109	2	29	
Acenaphthylene	**0.0693**	**0.0683**	0.0833	0.0833	83	82	54 - 118	1	18	
Acenaphthene	**0.0698**	**0.0695**	0.0833	0.0833	84	83	60 - 108	0	14	
Fluorene	**0.0737**	**0.0735**	0.0833	0.0833	88	88	61 - 113	0	13	
Phenanthrene	**0.0786**	**0.0787**	0.0833	0.0833	94	94	63 - 106	0	13	
Anthracene	**0.0827**	**0.0859**	0.0833	0.0833	99	103	55 - 130	4	13	
Fluoranthene	**0.0734**	**0.0743**	0.0833	0.0833	88	89	66 - 118	1	13	
Pyrene	**0.0741**	**0.0751**	0.0833	0.0833	89	90	69 - 112	1	12	
Benzo[a]anthracene	**0.0754**	**0.0775**	0.0833	0.0833	91	93	58 - 115	3	13	
Chrysene	**0.0764**	**0.0790**	0.0833	0.0833	92	95	64 - 114	3	11	
Benzo[b]fluoranthene	**0.0748**	**0.0750**	0.0833	0.0833	90	90	52 - 125	0	19	
Benzo(j,k)fluoranthene	**0.0733**	**0.0768**	0.0833	0.0833	88	92	50 - 126	5	22	
Benzo[a]pyrene	**0.0694**	**0.0770**	0.0833	0.0833	83	92	43 - 123	10	16	
Indeno(1,2,3-c,d)pyrene	**0.0722**	**0.0746**	0.0833	0.0833	87	90	55 - 118	3	16	
Dibenz[a,h]anthracene	**0.0720**	**0.0744**	0.0833	0.0833	86	89	57 - 120	3	15	
Benzo[g,h,i]perylene	**0.0721**	**0.0746**	0.0833	0.0833	87	90	58 - 113	3	18	
Surrogate:										
2-Fluorobiphenyl					*84*	*77*	*43 - 116*			
Pyrene-d10					*88*	*87*	*33 - 124*			
Terphenyl-d14					*86*	*88*	*38 - 125*			

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0327S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0734**	**0.0786**	0.0833	0.0833	88	94	45 - 109	7	29	
Acenaphthylene	**0.0868**	**0.0890**	0.0833	0.0833	104	107	54 - 118	3	18	
Acenaphthene	**0.0799**	**0.0845**	0.0833	0.0833	96	101	60 - 108	6	14	
Fluorene	**0.0874**	**0.0909**	0.0833	0.0833	105	109	61 - 113	4	13	
Phenanthrene	**0.0806**	**0.0857**	0.0833	0.0833	97	103	63 - 106	6	13	
Anthracene	**0.102**	**0.103**	0.0833	0.0833	122	124	55 - 130	1	13	
Fluoranthene	**0.0858**	**0.0871**	0.0833	0.0833	103	105	66 - 118	2	13	
Pyrene	**0.0818**	**0.0861**	0.0833	0.0833	98	103	69 - 112	5	12	
Benzo[a]anthracene	**0.0932**	**0.0907**	0.0833	0.0833	112	109	58 - 115	3	13	
Chrysene	**0.0820**	**0.0855**	0.0833	0.0833	98	103	64 - 114	4	11	
Benzo[b]fluoranthene	**0.0891**	**0.0953**	0.0833	0.0833	107	114	52 - 125	7	19	
Benzo(j,k)fluoranthene	**0.0878**	**0.0847**	0.0833	0.0833	105	102	50 - 126	4	22	
Benzo[a]pyrene	**0.0833**	**0.0840**	0.0833	0.0833	100	101	43 - 123	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0931**	**0.0931**	0.0833	0.0833	112	112	55 - 118	0	16	
Dibenz[a,h]anthracene	**0.0907**	**0.0904**	0.0833	0.0833	109	109	57 - 120	0	15	
Benzo[g,h,i]perylene	**0.0930**	**0.0928**	0.0833	0.0833	112	111	58 - 113	0	18	
Surrogate:										
2-Fluorobiphenyl					*96*	*108*	*43 - 116*			
Pyrene-d10					*99*	*99*	*33 - 124*			
Terphenyl-d14					*99*	*98*	*38 - 125*			

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-1**					
Laboratory ID:	03-166-01					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.065	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.065	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.065	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.065	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*105*	*71-121*				
Client ID:	**03-19-SW-2**					
Laboratory ID:	03-166-02					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.070	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.070	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.070	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.070	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*113*	*71-121*				
Client ID:	**03-19-SW-3**					
Laboratory ID:	03-166-03					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.062	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.062	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.062	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.062	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*103*	*71-121*				
Client ID:	**03-19-SW-4**					
Laboratory ID:	03-166-04					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.072	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.072	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**0.33**	0.072	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**0.11**	0.072	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*106*	*71-121*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
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Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-5**					
Laboratory ID:	03-166-05					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.069	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.069	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.35	EPA 8021B	3-28-14	3-28-14	U1
o-Xylene	**0.088**	0.069	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*103*	*71-121*				
Client ID:	**03-19-SW-6**					
Laboratory ID:	03-166-06					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*103*	*71-121*				
Client ID:	**03-19-SW-7**					
Laboratory ID:	03-166-07					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.060	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.060	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.060	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.060	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*100*	*71-121*				
Client ID:	**03-19-SW-8**					
Laboratory ID:	03-166-08					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**0.071**	0.054	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.054	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*105*	*71-121*				

Date of Report: April 1, 2014
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Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-9**					
Laboratory ID:	03-166-09					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.066	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.066	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.066	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.066	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*100*	*71-121*				
Client ID:	**03-19-SW-10**					
Laboratory ID:	03-166-10					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.058	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.058	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.058	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.058	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*71-121*				
Client ID:	**03-19-SW-11**					
Laboratory ID:	03-166-11					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.082	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.082	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.082	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.082	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*107*	*71-121*				
Client ID:	**03-19-SW-12**					
Laboratory ID:	03-166-12					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.067	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.067	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.067	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.067	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*102*	*71-121*				

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Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-SW-13**					
Laboratory ID:	03-166-13					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.068	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.068	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.068	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.068	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*99*	*71-121*				
Client ID:	**03-19-TP-01**					
Laboratory ID:	03-166-14					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.064	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.064	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.064	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.064	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*102*	*71-121*				
Client ID:	**03-19-TP-02**					
Laboratory ID:	03-166-15					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.055	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.055	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.055	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.055	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*100*	*71-121*				
Client ID:	**03-19-TP-03**					
Laboratory ID:	03-166-16					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.059	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**0.10**	0.059	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**0.80**	0.059	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**0.25**	0.059	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*71-121*				

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BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-19-TP-04**					
Laboratory ID:	03-166-17					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.092	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.092	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.092	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.092	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*71-121*				
Client ID:	**03-19-TP-05**					
Laboratory ID:	03-166-18					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.061	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**0.11**	0.061	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**0.60**	0.061	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**0.42**	0.061	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*71-121*				
Client ID:	**03-19-TP-06**					
Laboratory ID:	03-166-19					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.064	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.064	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**0.20**	0.064	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**0.13**	0.064	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*71-121*				

Date of Report: April 1, 2014
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Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS1**					
Laboratory ID:	03-166-20					
Benzene	**ND**	0.026	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.13	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**0.27**	0.13	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**0.79**	0.13	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**0.24**	0.13	EPA 8021B	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*71-121*				
Client ID:	**03-13-SS2**					
Laboratory ID:	03-166-21					
Benzene	**ND**	0.022	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**0.11**	0.11	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*105*	*71-121*				
Client ID:	**03-13-SS3**					
Laboratory ID:	03-166-22					
Benzene	**ND**	0.020	EPA 8021B	3-25-14	3-26-14	
Toluene	**ND**	0.081	EPA 8021B	3-25-14	3-26-14	
Ethyl Benzene	**0.36**	0.081	EPA 8021B	3-25-14	3-26-14	
m,p-Xylene	**0.73**	0.081	EPA 8021B	3-25-14	3-26-14	
o-Xylene	**ND**	0.081	EPA 8021B	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*108*	*71-121*				
Client ID:	**03-13-SS4**					
Laboratory ID:	03-166-23					
Benzene	**ND**	0.027	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.14	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**0.17**	0.14	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**0.83**	0.14	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.70	EPA 8021B	3-25-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*103*	*71-121*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS5**					
Laboratory ID:	03-166-24					
Benzene	**ND**	0.025	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.13	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**1.7**	0.13	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**2.6**	0.13	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.65	EPA 8021B	3-25-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*76*	*71-121*				
Client ID:	**03-13-SS6**					
Laboratory ID:	03-166-25					
Benzene	**ND**	0.025	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.12	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**2.2**	0.12	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**6.1**	0.12	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**0.44**	0.12	EPA 8021B	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*71-121*				
Client ID:	**03-13-SS7**					
Laboratory ID:	03-166-26					
Benzene	**0.049**	0.022	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**2.8**	0.11	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**7.7**	0.11	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	1.1	EPA 8021B	3-25-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*71-121*				
Client ID:	**03-13-SS8**					
Laboratory ID:	03-166-27					
Benzene	**0.098**	0.027	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.14	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**4.7**	0.14	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**14**	0.68	EPA 8021B	3-25-14	3-26-14	
o-Xylene	**ND**	1.4	EPA 8021B	3-25-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*78*	*71-121*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS9**					
Laboratory ID:	03-166-28					
Benzene	**ND**	0.022	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**0.75**	0.11	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**0.66**	0.11	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	1.1	EPA 8021B	3-25-14	3-25-14	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*79*	*71-121*				
Client ID:	**03-13-SS10**					
Laboratory ID:	03-166-29					
Benzene	**ND**	0.026	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.13	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**0.62**	0.13	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**0.95**	0.13	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.13	EPA 8021B	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*71-121*				
Client ID:	**03-13-SS11**					
Laboratory ID:	03-166-30					
Benzene	**ND**	0.020	EPA 8021B	3-25-14	3-26-14	
Toluene	**ND**	0.070	EPA 8021B	3-25-14	3-26-14	
Ethyl Benzene	**0.30**	0.070	EPA 8021B	3-25-14	3-26-14	
m,p-Xylene	**0.53**	0.070	EPA 8021B	3-25-14	3-26-14	
o-Xylene	**ND**	0.070	EPA 8021B	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*71-121*				
Client ID:	**03-13-SS12**					
Laboratory ID:	03-166-31					
Benzene	**ND**	0.020	EPA 8021B	3-25-14	3-26-14	
Toluene	**ND**	0.065	EPA 8021B	3-25-14	3-26-14	
Ethyl Benzene	**0.077**	0.065	EPA 8021B	3-25-14	3-26-14	
m,p-Xylene	**0.22**	0.065	EPA 8021B	3-25-14	3-26-14	
o-Xylene	**0.095**	0.065	EPA 8021B	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*71-121*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**03-13-SS13**					
Laboratory ID:	03-166-32					
Benzene	**ND**	0.020	EPA 8021B	3-25-14	3-26-14	
Toluene	**ND**	0.068	EPA 8021B	3-25-14	3-26-14	
Ethyl Benzene	**ND**	0.068	EPA 8021B	3-25-14	3-26-14	
m,p-Xylene	**ND**	0.068	EPA 8021B	3-25-14	3-26-14	
o-Xylene	**ND**	0.068	EPA 8021B	3-25-14	3-26-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*71-121*				
Client ID:	**03-13-SS14**					
Laboratory ID:	03-166-40					
Benzene	**ND**	0.023	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.11	EPA 8021B	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*78*	*71-121*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0325S1					
Benzene	**ND**	0.020	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*71-121*				
Laboratory ID:	MB0325S2					
Benzene	**ND**	0.020	EPA 8021B	3-25-14	3-25-14	
Toluene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
Ethyl Benzene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
m,p-Xylene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
o-Xylene	**ND**	0.050	EPA 8021B	3-25-14	3-25-14	
Gasoline	**ND**	5.0	NWTPH-Gx	3-25-14	3-25-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*71-121*				
Laboratory ID:	MB0328S2					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-28-14	
Toluene	**ND**	0.050	EPA 8021B	3-28-14	3-28-14	
Ethyl Benzene	**ND**	0.050	EPA 8021B	3-28-14	3-28-14	
m,p-Xylene	**ND**	0.050	EPA 8021B	3-28-14	3-28-14	
o-Xylene	**ND**	0.050	EPA 8021B	3-28-14	3-28-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*71-121*				
Laboratory ID:	MB0328S3					
Benzene	**ND**	0.020	EPA 8021B	3-28-14	3-31-14	
Toluene	**ND**	0.050	EPA 8021B	3-28-14	3-31-14	
Ethyl Benzene	**ND**	0.050	EPA 8021B	3-28-14	3-31-14	
m,p-Xylene	**ND**	0.050	EPA 8021B	3-28-14	3-31-14	
o-Xylene	**ND**	0.050	EPA 8021B	3-28-14	3-31-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*71-121*				

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B
DUPLICATE QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
Laboratory ID:	03-166-31										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**0.0663**	**0.0661**	NA	NA		NA		NA	0	30	
m,p-Xylene	**0.189**	**0.186**	NA	NA		NA		NA	2	30	
o-Xylene	**0.0812**	**0.0899**	NA	NA		NA		NA	10	30	
Surrogate:											
Fluorobenzene						*85*	*87*	*71-121*			
Laboratory ID:	03-166-32										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*86*	*89*	*71-121*			
Laboratory ID:	03-166-11										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*107*	*101*	*71-121*			
Laboratory ID:	03-166-17										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*97*	*92*	*71-121*			

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

BTEX
EPA 8021B
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
Laboratory ID:	SB0325S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.920**	**0.908**	1.00	1.00		**92**	**91**	73-121	1	10	
Toluene	**0.905**	**0.916**	1.00	1.00		**91**	**92**	75-124	1	10	
Ethyl Benzene	**0.909**	**0.888**	1.00	1.00		**91**	**89**	75-125	2	9	
m,p-Xylene	**0.937**	**0.904**	1.00	1.00		**94**	**90**	75-126	4	9	
o-Xylene	**0.890**	**0.872**	1.00	1.00		**89**	**87**	74-123	2	8	
Surrogate:											
Fluorobenzene						*89*	*89*	*71-121*			
Laboratory ID:	SB0328S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.988**	**1.04**	1.00	1.00		**99**	**104**	73-121	5	10	
Toluene	**0.985**	**1.02**	1.00	1.00		**99**	**102**	75-124	3	10	
Ethyl Benzene	**0.982**	**1.04**	1.00	1.00		**98**	**104**	75-125	6	9	
m,p-Xylene	**1.00**	**1.01**	1.00	1.00		**100**	**101**	75-126	1	9	
o-Xylene	**0.970**	**1.01**	1.00	1.00		**97**	**101**	74-123	4	8	
Surrogate:											
Fluorobenzene						*91*	*95*	*71-121*			

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

% MOISTURE

Date Analyzed: 3-24&25-14

Client ID	Lab ID	% Moisture
03-19-SW-1	03-166-01	9
03-19-SW-2	03-166-02	18
03-19-SW-3	03-166-03	12
03-19-SW-4	03-166-04	18
03-19-SW-5	03-166-05	19
03-19-SW-6	03-166-06	14
03-19-SW-7	03-166-07	12
03-19-SW-8	03-166-08	15
03-19-SW-9	03-166-09	14
03-19-SW-10	03-166-10	9
03-19-SW-11	03-166-11	19
03-19-SW-12	03-166-12	9
03-19-SW-13	03-166-13	9
03-19-TP-01	03-166-14	13
03-19-TP-02	03-166-15	13
03-19-TP-03	03-166-16	15
03-19-TP-04	03-166-17	23
03-19-TP-05	03-166-18	12
03-19-TP-06	03-166-19	14
03-13-SS1	03-166-20	14
03-13-SS2	03-166-21	13
03-13-SS3	03-166-22	25
03-13-SS4	03-166-23	15
03-13-SS5	03-166-24	10
03-13-SS6	03-166-25	10
03-13-SS7	03-166-26	13
03-13-SS8	03-166-27	18

Date of Report: April 1, 2014
Samples Submitted: March 24, 2014
Laboratory Reference: 1403-166
Project: E2014/0102; Horse Heaven Hills

% MOISTURE

Date Analyzed: 3-24&25-14

Client ID	Lab ID	% Moisture
03-13-SS9	03-166-28	8
03-13-SS10	03-166-29	12
03-13-SS11	03-166-30	19
03-13-SS12	03-166-31	14
03-13-SS13	03-166-32	13
03-13-SS14	03-166-40	10
03-11-SP-4	03-166-41	23
03-11-SP-5	03-166-42	18
03-11-SP-6	03-166-43	19
03-12-SP-7	03-166-44	22
03-12-SP-8	03-166-45	25
03-12-SP-9	03-166-46	20
03-12-SP-10	03-166-47	24

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: BMEC
Project Number: E2014/0102
Project Name: Horse Heaven Hills
Project Manager: P. Trabuswer
Sampled by: Y. Meyer

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 03-166

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	X BTEX (EPA 8021)					% Moisture
1	03-19-SW-1	3-19-14	0705	Soil	3				X				X									X					18
2	03-19-SW-2		0713																								
3	03-19-SW-3		0721																								
4	03-19-SW-4		0728																								
5	03-19-SW-5		0739																								
6	03-19-SW-6		0746																								
7	03-19-SW-7		0753																								
8	03-19-SW-8		0801																								
9	03-19-SW-9		0812																								
10	03-19-SW-10		0820																								

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	3-20-14	1400	
Received		OSE	3/24/14	0905	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: BMEC
Project Number: E2014/0102
Project Name: HORSE HEAVEN HILLS
Project Manager: P. TRABUSINER
Sampled by: Y. MEYER

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 03-166

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	BTEX (EPA 8021)					% Moisture
11	03-19-SW-11	3-19-14	0829	SOIL	3				X				X									X					10
12	03-19-SW-12		0837																								
13	03-19-SW-13		0844																								
14	03-19-TP-01		0852																								
15	03-19-TP-02		0859																								
16	03-19-TP-03		~~0903~~ 0909																								
17	03-19-TP-04		0916																								
18	03-19-TP-05		0925																								
19	03-19-TP-06		0932																								

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	3-20-14	1400	
Received		OSE	3/24/14	0905	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: BMEC
Project Number: E2014/0102
Project Name: HORSE HEAVEN HILLS
Project Manager: P. TRABUSINER
Sampled by: Y. MEYER

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 03-166

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	BTEX (EPA 8021)					% Moisture
20	3·13·551	3·13·14	0937	SOIL	2				X				X									X					X
21	3·13·552		0941																								
22	3·13·553		0945																								
23	3·13·554		0951																								
24	3·13·555		0956																								
25	3·13·556		0959																								
26	3·13·557		1002																								
27	3·13·558		1005																								
28	3·13·559		1009																								
29	3·13·5510		1015																								

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	3-21-14	1400	
Received		OSE	3/24/14	0905	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 03-166

Company: BMEC
Project Number: E2014/0102
Project Name: Horse Heaven Hills
Project Manager: P. Trabuiner
Sampled by: Y. Meyer

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A		BTEX (8021)		HOLD		% Moisture
30	3.13.SS.11	3.13.14	1431	Soil	2				X				X														X
31	3.13.SS.12	↓	1434		↓																						
32	3.13.SS.13	↓	1439		↓																						
33	3.20.TP.1	3.20.14	0852		3																				X		NOT REQ
34	3.20.~~TP.2~~ TP.2 VM	↓	0859		↓																				X		NOT REQ
35	3.20.TP.3	↓	0909		↓																				X		NOT REQ
36	3.20.TP.4	↓	0916		↓																				X		NOT REQ
37	3.20.TP5	↓	0925		↓																				X		NOT REQ
38	3.20.TP.6	↓ VM	0932		↓																				X		NOT REQ
39	3.19.~~SW.13~~ SW.11	3.19.14 ~~0844~~	0844		↓																						NOT REQ

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	3.VM.20.14	1400	
Received		OSE	3/24/14	0905	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: BMEC
Project Number: E2014/0102
Project Name: Horse Heaven Hills
Project Manager: P. TRABUSINER
Sampled by: Y. MEYER

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 03-166

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	BTEX/EPA 8021					% Moisture
40	3.13.SS.14	3.13.14	1444	SOIL	2				X				X									X					X
41	3.11.SP.4	3.11.14	1331		1																						
42	3.11.SP.5		1357																								
43	3.11.SP.6		1423																								
44	3.12.SP.7	3.12.14	0737																								
45	3.12.SP.8		0803																								
46	3.12.SP.9		0859																								
47	3.12.SP.10		0954																								

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	3.20.14	1400	
Received			3/24/14	0905	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 14, 2014

Peter Trabusiner
Blue Mountain Environmental, Inc.
1500 Adair Drive
Richland, WA 99352

Re: Analytical Data for Project E2014/0303; Horse Heaven Hills
Laboratory Reference No. 1404-075

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on April 10, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 14, 2014
Samples Submitted: April 10, 2014
Laboratory Reference: 1404-075
Project: E2014/0303; Horse Heaven Hills

Case Narrative

Samples were collected on April 9, 2014 and received by the laboratory on April 10, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 14, 2014
Samples Submitted: April 10, 2014
Laboratory Reference: 1404-075
Project: E2014/0303; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**4-9-SP1**					
Laboratory ID:	04-075-01					
Diesel Range Organics	**ND**	30	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil	**88**	60	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**4-9-SP2**					
Laboratory ID:	04-075-02					
Diesel Fuel #2	**280**	27	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				
Client ID:	**4-9-SP3**					
Laboratory ID:	04-075-03					
Diesel Fuel #2	**200**	28	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*109*	*50-150*				
Client ID:	**4-9-SP4**					
Laboratory ID:	04-075-04					
Diesel Fuel #2	**84**	29	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	58	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**4-9-SP5**					
Laboratory ID:	04-075-05					
Diesel Range Organics	**ND**	29	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	58	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**4-9-SP6**					
Laboratory ID:	04-075-06					
Diesel Fuel #2	**200**	28	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

Date of Report: April 14, 2014
Samples Submitted: April 10, 2014
Laboratory Reference: 1404-075
Project: E2014/0303; Horse Heaven Hills

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**4-9-SP7**					
Laboratory ID:	04-075-07					
Diesel Fuel #2	**85**	29	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**4-9-SP8**					
Laboratory ID:	04-075-08					
Diesel Fuel #2	**530**	27	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil	**160**	54	NWTPH-Dx	4-11-14	4-11-14	N1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				

Date of Report: April 14, 2014
Samples Submitted: April 10, 2014
Laboratory Reference: 1404-075
Project: E2014/0303; Horse Heaven Hills

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0411S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	4-11-14	4-11-14	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	4-11-14	4-11-14	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-075-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**73.8**	**56.4**	NA	NA		NA		NA	27	NA	
Surrogate:											
o-Terphenyl						*91*	*76*	*50-150*			

Date of Report: April 14, 2014
Samples Submitted: April 10, 2014
Laboratory Reference: 1404-075
Project: E2014/0303; Horse Heaven Hills

% MOISTURE

Date Analyzed: 4-11-14

Client ID	Lab ID	% Moisture
4-9-SP1	04-075-01	16
4-9-SP2	04-075-02	7
4-9-SP3	04-075-03	12
4-9-SP4	04-075-04	13
4-9-SP5	04-075-05	13
4-9-SP6	04-075-06	11
4-9-SP7	04-075-07	13
4-9-SP8	04-075-08	8

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 04-075

Company: BMEC
Project Number: E2014/~~0107~~ 0303
Project Name: HORSE HEAVEN HILLS
Project Manager: P. TRABUSINER
Sampled by: V. MEYER

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☒ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

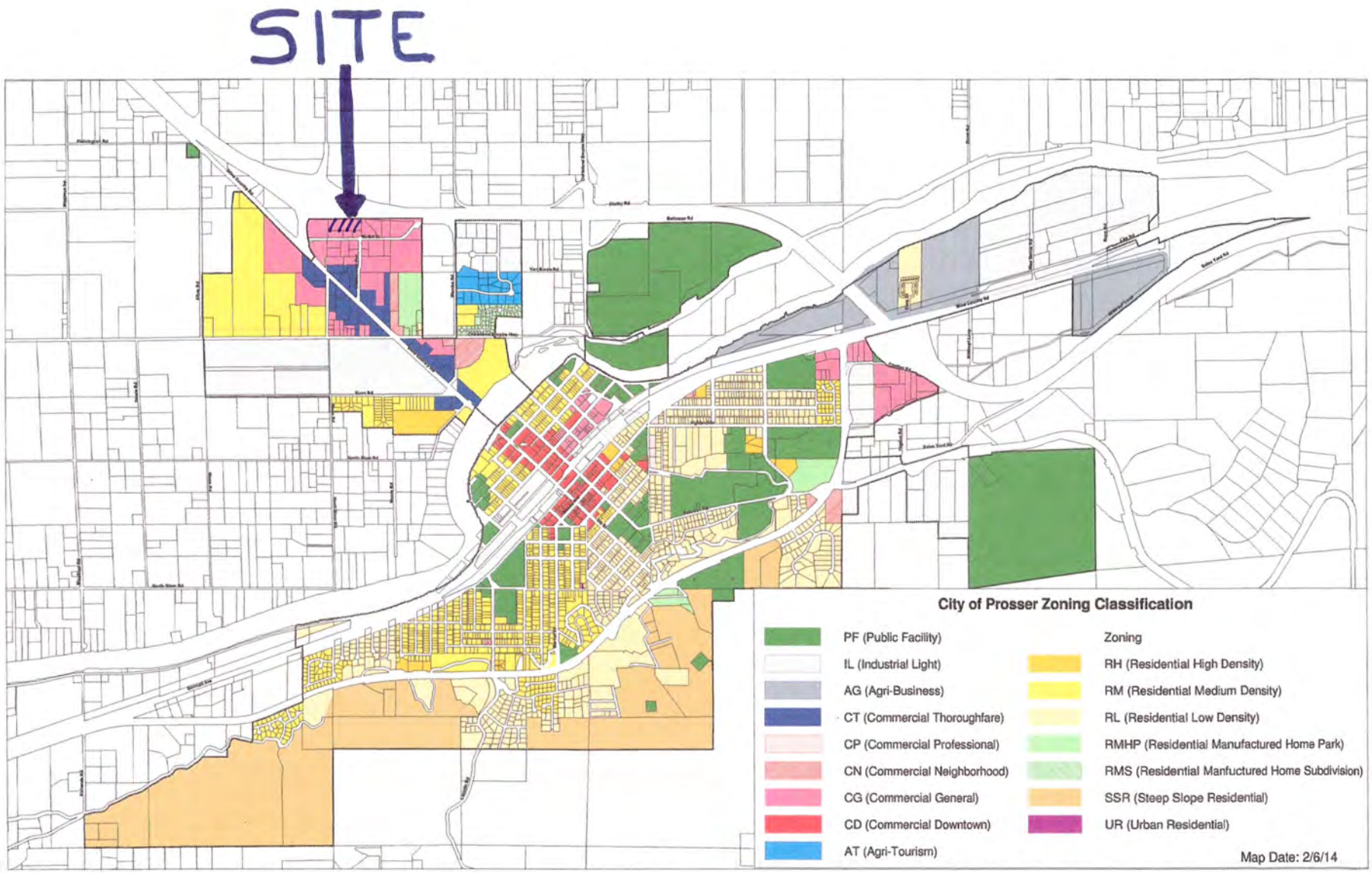
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A							% Moisture
1	4-9-SP1	4-9-14	1309	SOIL	1				X																		✓
2	4-9-SP2		1312																								
3	4-9-SP3		1315																								
4	4-9-SP4		1318																								
5	4-9-SP5		1321																								
6	4-9-SP6		1324																								
7	4-9-SP7		1327																								
8	4-9-SP8	✓	1330	✓	✓				✓																		

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		BMEC	4-9-14	1400	
Received		CRE	4/10/14	1030	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

APPENDIX F

CITY OF PROSSER ZONING CLASSIFICATION MAP


SITE
City of Prosser Zoning Classification
Zoning
PF (Public Facility)
IL (Industrial Light)
AG (Agri-Business)
CT (Commercial Thoroughfare)
CP (Commercial Professional)
CN (Commercial Neighborhood)
CG (Commercial General)
CD (Commercial Downtown)
AT (Agri-Tourism)
RH (Residential High Density)
RM (Residential Medium Density)
RL (Residential Low Density)
RMHP (Residential Manufactured Home Park)
RMS (Residential Manfuctured Home Subdivision)
SSR (Steep Slope Residential)
UR (Urban Residential)
Map Date: 2/6/14

APPENDIX G

DETERMINATION OF NON-SIGNIFICANCE DOCUMENTATION

CITY OF PROSSER, WASHINGTON
NOTICE OF COMPLETE APPLICATION AND OPTIONAL DETERMINATION OF NONSIGNIFICANCE [DNS]

Notice of Application and Optional Determination of Non-significance posted April 9, 2014

Type of Application: SEPA Checklist
Date of Application: March 28, 2014
Name of Applicant: Christensen 1 LLC
Location of Project: 101 Merlot Drive, Prosser, WA

Description of proposed project: Installing 2 new 20,000 gallon diesel tanks and 1 new 6,000 gallon diesel exhaust fluid (DEF) tank as well as 6 new fuel islands, new plumbing and a new 24' by 110' canopy. Remodeling the inside of the building and will be adding drivit (stucco), CMU Block and ledgestone rock to the outside of the building.

Other permits:

The following additional permits are associated with this application: Applicant has contacted Department of Ecology and obtained permits and approvals for clean-up plans of existing tanks. The City of Prosser has received a validated 30 day notice.

The following studies have been required pursuant to RCW 36.70B.070: None

Preliminary determination of consistency:

The City has determined that this application is consistent with the City's Development Regulations and Comprehensive Plan.

Environmental Review: The City is using the optional process contained in Washington Administrative Code (WAC) Section 197-11-355 to make its threshold determination. The City expects to issue a **Determination of Non-significance (DNS)** for this project. This may be your only opportunity to comment on the environmental impacts of the proposed project. A copy of the subsequent Threshold Determination for the project may be obtained upon request. The lead agency, the City of Prosser, will not act on this proposal for 14 days from the published date below.

City of Prosser Contact: Prosser City Clerk.

Comments: The public is invited to comment on the application and environmental review. The public comment period shall be **15-days and will begin April 9, 2014**. All public comments received on the Notice of Application must be received by the City of Prosser **no later than 5:00 pm, April 25, 2014.** Comments may be mailed or personally delivered to the;

Attn: Prosser City Clerk
601 7th Street,
Prosser, Washington, 99350

All available information and related documents for the application may be viewed at the City Clerk's Office, located at Prosser City Hall, 601 7th St, Prosser, Washington, between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday, excluding official holidays and lunch hours between 11:00 a.m. and 12:00 p.m., or may be viewed at www.cityofprosser.com.

The person(s) receiving this notice may request a copy of the final decision in this matter.

The final decisions may be appealed in accordance with the Land Use Petition Act (RCW 36.70C).

Dated: April 1, 2014

Rachel M. Shaw

Rachel Shaw CMC
City Clerk
City of Prosser

Published: Prosser Record Bulletin
Publish Date: April 9, 2014

LAND USE ZONING & PERMIT APPLICATION
CITY OF PROSSER, WASHINGTON

APPLICANT'S NAME Christensen 1, LLC

PROJECT NAME Ameristar Travel Plaza 20, (Horse Heaven Hills Truck Stop)

PARCEL INFORMATION (Include all parcel(s) information. Attach additional sheets, if necessary.)

Project Address: 101 Merlot Drive
(Leave blank if not assigned)

Parcel Number (Property Tax Account Number): 135943011661001

Legal Description: short plat #1661 LOT 1: together with that portion of vacated Gap Road ORD #1557

PROPERTY OWNER INFORMATION

Name: Christensen 1, LLC

Address: PO BOX 98 City: Grandview State: WA Zip: 98930

Phone: 509-882-2115 Cell Phone: 509-830-3704

Email: gary.christensen@repowell.net (email will not be used for transmittal of official findings)

OWNERS AUTHORIZED AGENT: Brandon Christensen

Address: PO Box 4753 City: West Richland State: WA Zip: 99353

Phone: 509-882-2115 Cell Phone: 509-830-3706

Email: brandon.christensen@repowell.net (email will not be used for transmittal of official findings)

PROJECT INFORMATION

- ☐ Site Review
- ☐ Annexation
- ☐ Change of Zone
- ☐ Accessory Dwelling Unit
- ☐ Overlay Zone
- ☐ Right-of-Way Use Permit
- ☐ Other
- ☐ Conditional Use **(requires Conditional Use form LUA-S1)**
- ☐ Variance **(requires Variance request form LUA-S2)**
- ☐ Similar Use
- ☐ Encroachment
- ☐ Adult Family Home
- ☐ Continuation and/or Minor Alteration of Non-Conforming Use
- xxx☐ SEPA

PROJECT DESCRIPTION **Reinstalling 2 diesel tanks, 1 Diesel Exhaust Fluid tanks, 6 islands, fuel pumps, a 24x110 canopy, remodeling interior and exterior of the building.**

City of Prosser
601 7th Street
Prosser WA 99350
(509) 786-2332

PLEASE ATTACH THE REQUIRED VICINITY MAP

ESTIMATED PROJECT VALUATION: $ 180,000

CONTRACTOR INFORMATION

Company Name: Powell-Christensen Inc. Email: brandon.christensen@repowell.net

Contact Person: Brandon Christensen Contact Phone: 509-830-3706

Address: PO Box 98 City: Grandview State: WA Zip: 98930

Contractor's Registration No.: POWELCI02703 Expiration Date: 11-8-14

I, the undersigned, do hereby certify that, to the best of my knowledge, the information on this application and other submitted information is true and correct. In addition, I understand that acceptance of this application and fees does not constitute submittal of a valid application until so informed by the City. I have attached, enclosed, or submitted the applicable fees for this application.

Applicant Signature 3-28-14 Date

Owner Signature 3-28-14 Date

If the property owner is other than an individual such as a corporation, partnership or agency, please provide proof of signatory authorization.

SITE REVIEW

Application must include the following.

1. Critical Areas Worksheet
2. Proof of Legal Lot
3. Proof of ownership or authority
4. 25 year Storm Water Calculations stamped by an engineer
5. Site Plan Drawing which shows....
   - ☐ All existing and proposed lot lines.
   - ☐ The location of all existing structures to remain and the location of all proposed structures.
   - ☐ The location of all utilities proposed to be used.
   - ☐ The proposed number and location of water meters.
   - ☐ The location of all solid waste receptacle areas.
   - ☐ The method of handling storm water removal.
   - ☐ All easements and right-of-ways.
   - ☐ All off-street parking and loading areas.
   - ☐ All driveway locations.
   - ☐ All landscaping, outdoor lighting and fencing..
   - ☐ A north arrow.
   - ☐ Scale of drawing

Deposits are required at the time an application is submitted. You will still get a monthly bill for actual costs incurred. Your deposit will not be refunded until the project has closed.

SITE REVIEW	$500.00 Deposit
VARIANCE	$500.00 Deposit
SITE REVIEW	$500.00 Deposit
SEPA	$500.00 Deposit
ANNEXATION	$500.00 Deposit
ZONE CHANGE	$1000.00 Deposit
CONDITIONAL USE	$500.00 Deposit

CITY USE ONLY

RECIEVED BY _____ DATE _____

APPROVED BY _____ DATE _____

RETURNED BY _____ DATE _____

REASON FOR APPLICATION RETURN _____

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable: **Ameristar Travel Plaza #20 (formerly Horse Heaven Hills Truck Stop)**

2. Name of applicant: **Christensen 1, LLC**

3. Address and phone number of applicant and contact person: **PO Box 98, Grandview, WA 98930, Brandon Christensen 509-830-3706**

4. Date checklist prepared: **March 28, 2014**

5. Agency requesting checklist: **City of Prosser**

6. Proposed timing or schedule (including phasing, if applicable): **March thru May 2014**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. **Yes. The interior and exterior of the building is being remodeled**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. **Blue Mountain Environmental Consulting Company, Inc, has prepared a detailed Environmental Study and Underground Storage Tank Cleanup Plan for this facility.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **All work is approved by City of Prosser and Washington Department of Ecology**

10. List any government approvals or permits that will be needed for your proposal, if known.

City of Prosser Building Permit

Washington Labor and Industries – Electrical Permit

Washington Department of Ecology approval to install new underground storage tanks

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

We will be installing 2 new 20,000 gallon diesel tanks and 1 new 6,000 gallon diesel exhaust fluid (DEF) tank as well as 6 new fuel islands, new plumbing and a new 24' by 110' canopy. We are also remodeling the inside of the building and will be adding drivit (stucco), CMU Block and ledgestone rock to the outside of the building.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Project is located at 101 Merlot Drive, Prosser, WA 99350 which is off Interstate 82 and the Gap Road Exit. Parcel # 135943011661001, Legal Description: Short plat #1661 LOT 1: together with that portion of vacated Gap Road ORD #1557

TO BE COMPLETED BY APPLICANT	EVALUATION FOR AGENCY USE ONLY
B. ENVIRONMENTAL ELEMENTS	
1. **Earth** a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other	

FLAT

b. What is the steepest slope on the site (approximate percent slope)?

1%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Ashue Silt Loam with moderately coarse textures and gravelly sandy loam as well as a layer of light yellowish brown and pale brown very gravelly sand.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

NO

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Due to recent excavation we will be backfilling with pit run from a gravel pit located 2 miles from the site. This backfill of pit run will be within 24 inches of finish grade

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

NO

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

70%, the same percentage that has been covered since 1990.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

NONE NEEDED

2. **Air**

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Only emissions will be from the construction equipment needed to erect the canopy

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

NO

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

N/A

3. **Water**

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

NO

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters?

If yes, please describe and attach available plans.

NO

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

N/A

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

NO

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

NO

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

NO

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

YES, A FIVE FOOT WELL WILL BE DUG, A PUMP WILL REMOVE WATER FROM THIS SITE DIRECTLY INTO THE CITY SEWER SYSTEM

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

NONE

c.

Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

STORM WATER WILL RUNOFF AS IT HAS SINCE 1990. THERE ARE STORMDRAINS LOCATED THROUGHOUT THE PROPERTY THAT ARE CONNECTED TO THE CITY STORM WATER SYSTEM.

2) Could waste materials enter ground or surface waters? If so, generally describe.

NO

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

4. **Plants – NONE EFFECTED**

a. Check or circle types of vegetation found on the site:

—	Deciduous tree: Alder, maple, aspen, other	NONE
—	Evergreen tree: Fir, cedar, pine, other	NONE
—	Shrubs	NONE
—	Grass	NONE
—	Pasture	NONE
—	Crop or grain	NONE
—	Wet soil plants: Cattail, buttercup, bullrush, skunk cabbage, other	NONE

—	Water plants: Water lily, eelgrass, milfoil, other	NONE
—	Other types of vegetation	NONE

b. What kind and amount of vegetation will be removed or altered?

NO VEGETATION IS PRESENT

c. List threatened or endangered species known to be on or near the site.

NONE

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

NONE

5. **Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: Hawk, heron, eagle, songbirds, other:	NONE
Mammals: Deer, bear, elk, beaver, other:	NONE
Fish: Bass, salmon, trout, herring, shellfish, other:	NONE

b. List any threatened or endangered species known to be on or near the site.

NONE

c. Is the site part of a migration route? If so, explain.

NO

d. Proposed measures to preserve or enhance wildlife, if any:

NONE NEEDED

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

ELECTRICITY TO POWER THE LIGHTS, SIGNAGE AND THE PUMPS

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

NO

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

LED LIGHTS WILL BE USED TO USE UP TO 90% LESS ENERGY THAN BEFORE

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

A DIESEL FUEL SPILL IS POSSIBLE. WE ARE INSTALLING CONTAINMENT SUMPS TO MINIMIZE ENVIRONMENTAL EXPOSURE

1) Describe special emergency services that might be required.

NONE

2) Proposed measures to reduce or control environmental health hazards, if any:

CONTAINMENT SUMPS WILL BE INSTALLED UNDER THE PUMPS, AT ANY VALVING OR MANIFOLDING POINT AND AT THE TURBINE ABOVE THE TANKS.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

NONE

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

NONE

3) Proposed measures to reduce or control noise impacts, if any:

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties?

N/A

b. Has the site been used for agriculture? If so, describe.

NOT FOR OVER 25 YEARS

c. Describe any structures on the site.

2 FUEL CANOPIES AND A CONVENIENCE STORE BUILDING AS WELL AS TEMPORARY STORAGE BUILDINGS

d. Will any structures be demolished? If so, what?

THE OLD DIESEL CANOPY WAS ALREADY DEMOLISHED

e. What is the current zoning classification of the site?

COMMERCIAL

f. What is the current comprehensive plan designation of the site?

NOT KNOWN

g. If applicable, what is the current shoreline master program designation of the site?

NOT KNOWN

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

NO

i. Approximately how many people would reside or work in the completed project?

12

j. Approximately how many people would the completed project?

12

k. Proposed measures to avoid or reduce displacement impacts, if any:

NONE NECESSARY. PROJECT WILL INCREASE POTENTIAL JOBS

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

LAND USE IS STAYING THE SAME

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

NONE

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

NONE

c. Proposed measures to reduce or control housing impacts, if any:

NONE IMPACTED

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

20 FEET, ACM (ALUMINIM COMPOSITE METAL) AND STEEL, BUILDING WILL HAVE CMU BLOCK, DRIVIT AND ROCK

b. What views in the immediate vicinity would be altered or obstructed?

NO ALTERATIONS

c. Proposed measures to reduce or control aesthetic impacts, if any:

AESTHETICS WILL BE POSITIVELY IMPACTED

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

LIGHT GLARE ONLY AT NIGHT FROM FUEL CANOPIES

b. Could light or glare from the finished project be a safety hazard or interfere with views?

NO

c. What existing off-site sources of light or glare may affect your proposal?

NONE

d. Proposed measures to reduce or control light and glare impacts, if any:

NONE

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?

WINE TASTING
RV PARK

b. Would the proposed project displace any existing recreational uses? If so, describe.

NO

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities

to be provided by the project or applicant, if any:

NONE

13. **Historic and cultural preservation**

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

NO

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

N/A

c. Proposed measures to reduce or control impacts, if any:

NONE

14. **Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

INTERSTATE 82
MERLOT DRIVE
GAP ROAD

ACCESS WILL NOT CHANGE

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

NOT KNOWN

c. How many parking spaces would the completed project have? How many would the project

eliminate?

14 PARKING SPACES ADJASCENT TO CONVENIENCE STORE WILL BE MAINTAINED PARKING SPACES WILL NOT BE ELIMINATED

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

NO

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

NO

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

778. PEAK TIMES WILL BE MORNING 6A-9A AND EVENINGS 330P TO 630P.

g. Proposed measures to reduce or control transportation impacts, if any:

NONE

15. **Public services**

a. Would the project result in an increased need for public services (for example: Fire protection, police protection, health care, schools, other)? If so, generally describe.

NO

b. Proposed measures to reduce or control direct impacts on public services, if any.

NONE

16. **Utilities**

a. Circle utilities currently available at the site: Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

ELECTRICITY, WATER, REFUSE SERVICE, TELEPHONE, SANITARY SEWER

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

UTILITIES ARE NOT CHANGING

C.

SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Date Submitted: 3-28-14

D.

SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1.

How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

NONE

Proposed measures to avoid or reduce such increases are:

N/A

2.
How would the proposal be likely to affect plants, animals, fish, or marine life?

NONE

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

N/A

3.
How would the proposal be likely to deplete energy or natural resources?

THIS IS A GAS STATION THAT WILL SELL GASOLINE AND DIESEL FUEL AS IT HAS FOR 25 YEARS

Proposed measures to protect or conserve energy and natural resources are:

LED LIGHTS WILL BE USED INSIDE AND OUTSIDE TO REDUCE ENERGY CONSUMPTION

4.
How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

NO EFFECT

Proposed measures to protect such resources or to avoid or reduce impacts are:

N/A

5.
How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

NONE

Proposed measures to avoid or reduce shoreline and land use impacts are:

N/A

6.
How would the proposal be likely to increase demands on transportation or public services and utilities?

NOT KNOWN

Proposed measures to reduce or respond to such demand(s) are:

N/A

7.
Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

IT WILL NOT CONFLICT

CRO - Benton

DEPARTMENT OF ECOLOGY
State of Washington

UNDERGROUND STORAGE TANK (UST)
30-DAY NOTICE

(See back of form for instructions)

FOR OFFICE USE ONLY
Site ID # 100694
FS ID # 28995469
VALIDATED
MAR 19 2014
Department of Ecology, HQ

Please ✓ the appropriate box: ☒ Intent to Install ☐ Intent to Close

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION

91-1107733
Tag or UBI number

Horse Heaven Hills Trwk Stop
Site Name

101 Merlot Drive
Site Physical Address

Prosser 99350
City Zip Code

509 786 1440
Site Phone Number

OWNER INFORMATION (this form will be returned to this address)

Powell Christensen Inc
UST Owner/Operator

P.O. Box 98
Mailing Address/PO Box

Grandview 98930
City Zip Code

Brandon Christensen / 509 830 3706
Owner/Operator Phone Number

brandon.christensen@repowell.net
Owner/Operator Email Address

TANK INFORMATION

Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin
4 (four)	Diesel	20,000	4-1-14
5 (five)	Diesel	20,000	4-1-14

Comments: We request expedited approval to install due to rising groundwater during irrigation season.

RECEIVED
MAR 19 2014
Department of Ecology
Toxics Cleanup Program

1) SERVICE PROVIDER INFORMATION – check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

☒ Installer ☐ Decommissioner ☐ Site Assessor

PNE Corp
Service Provider Company Name

David Viers
Certified Service Provider Name

144704
ICC Certification #

Jake Jabusch
Contact Person

360-423-2245
Contact Phone Number

jakej@pnecorp.com
Contact Email Address

2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) – check the appropriate boxes

☒ Installer ☐ Decommissioner ☐ Site Assessor

PNE Corp
Service Provider Company Name

Randy F. Osborn
Certified Service Provider Name

11003
ICC Certification #

Jake Jabusch
Contact Person

360 423 2245
Contact Phone Number

jakej@pnecorp.com
Contact Email Address

ECY 020-95 (Rev. Feb. 2012)

DELINEATION AND REMEDIATION OF SUBSURFACE PETROLEUM HYDROCARBON CONTAMINATION

PART: 1 GENERAL

1.1 SUMMARY

A. Blue Mountain Environmental and Consulting Co., Inc. (BMEC) will perform all work required to complete the delineation and the site remediation/cleanup after a confirmed diesel range petroleum hydrocarbon release at the dispenser islands of the Horse Heaven Hills Travel Plaza (Truck Stop), located at 101 Merlot Drive, in Prosser, Washington.

1.2 SCOPE OF WORK

A. Site remediation: BMEC will provide all labor and materials necessary to complete the site cleanup. All work is to be performed in a safe and environmentally acceptable manner and in strict accordance with all Federal, State, and local regulations. Work to be performed shall include, but is not limited to:

1. After location all utilities on and adjoining to the site, we will initiate and supervise the removal and on-site storage of the protective canopy, which is necessary for safety reasons and to minimize liability. The canopy will be re-installed after the cleanup work has been finished (Changes or updates to the existing canopy are not included in BMEC's scope of work).
2. The site cleanup will be done in two phases to minimize the revenue loss from retail fuel sales. After shutting down half of the existing fuel islands the dispenser pumps will be removed by others. After removing the concrete island and the concrete slab we will excavate obviously diesel impacted soils to the vertical and horizontal extent where visually diesel impacted soil is confirmed. To avoid over-excavation of clean material, constant field measurements are taken with a hand-held electronic instrument. The second half of the dispenser islands will be done in the same way.
3. The excavated contaminated soil will be either stored properly on site before shipped to the certified disposal facility in Yakima, or loaded directly on trucks for transport to the facility (Anderson Rock PCS Treatment Facility).

4. Replacement of the fuel system with new dispensers, spill containments, and piping and all other required appurtenances will be done by others and is not part of BMECs scope of work.

5. Backfill of the excavation will be done according to code regulations up to 24 inches below grade to be finished by others after all new pipe installations and site upgrades are done.

6. All work documentation during the site cleanup will be submitted with the final cleanup report to the client and his attorney, to Colony Insurance, and the Washington Department of Ecology (DOE), in Yakima, Washington for final approval.

B. This specifications do not include the restoration of landscaping, the repair or replacement of any unforeseen or unknown underground obstructions, Shoring, bracing and construction of barriers *if necessary* to protect public and adjacent facilities, utilities, or structures not designated for removal.

1.3 RELATED WORK

All inspections, tests and reports contained herein and required by Federal, State, and local regulations shall be accomplished by BMEC.

1.4 INTENT

The methods and procedures described are suggested as a means to accomplish the work. Alternative methods may be submitted to BMEC for review prior to implementation. The methods will be evaluated with regard to established codes, regulations and procedures governing the work.

1.5 SEQUENCING AND SCHEDULING

A. All work shall be accomplished during normal working hours, 7:00 AM to 5.00 PM, Monday through Friday or otherwise requested by the client.

1.6 REFERENCES

A. In addition to standards described elsewhere in the specification the work will be performed in accordance with applicable Federal, State, and local regulations and the current edition of applicable standards and publications of the following organizations:

1. National Fire Protection Association, National Fire Code

2. Uniform Fire Code
   UFC Section 7902.1.7/Article 61

3. American Petroleum Institute
   API 1604

4. State Department of Ecology (DOE)
   Model Toxics Control Act (MTCA) Cleanup Regulations

5. The Environmental Protection Agency (EPA)

6. Applicable City, County, and/or Fire Department Standards

1.7 ACCESS/INSPECTIONS

The client shall have free access to inspect the work at all times. The work shall not be covered or backfilled without the consent of the BMEC engineer or the approval of appropriate agencies.

1.8 PREPARATION

A. BMECs contractor will provide barriers and fire protection to complete and protect the work. Barriers shall be designed and maintained for both pedestrian and vehicular traffic. The excavated site shall be secured during non-work hours to prevent falls into the excavation.

1.9 DOCUMENTATION

A. BMEC, Inc. will provide three (3) copies of all permits, approvals, sample documentation, sample transmittals, sample analysis and test results.

B. The contractor will provide written documentation and an affidavit documentation for the appropriate disposal of contaminated soil.

PART 2: MATERIALS

2.1 MATERIALS

Materials shall be in accordance with requirements established by ASTM.

PART 3: EXECUTION

A. BMEC will obtain the necessary permits and approvals prior to commencement of the work, e.g., notify the "Department" (local Agency regulating Building Permits); and in an emergency, notify the "Department", local government and fire department.

B. BMEC will locate and confirm the location of utilities in the area of the work.

C. BMEC will not begin field work until authorized by the client and Colony Insurance.

3.2 PROTECTION

A. Temporary barriers and traffic control shall be established to protect workers and the public from excavations and hazards resulting from the performance of the work.

B. Utility lines servicing the fuel islands shall be removed if possible; otherwise, these lines shall be disconnected, terminated and/or capped.

3.4 PIPING

A. Product lines and other appurtenances shall be removed by others once they are unearthed.

3.5 EQUIPMENT

A. Related fueling equipment designated for removal shall be decontaminated and disposed of as scrap for metals recycling by others.

.

3.6 EXCAVATION

A. BMEC will remove and dispose of properly all concrete and asphalt and excavate all clean overburden and store it on site for re-use. The work shall be performed in accordance with this specification and special standards referenced in this Section.

B. Contaminated soils (soils which contain concentration of contaminants in excess of DOE-MTCA cleanup standards) and materials encountered during the tank removal process shall be segregated for treatment disposal in accordance with this specification and WA-State requirements.
See Section 1.2 B for further clarification.

3.7 BACKFILL

A. Backfill will be performed in accordance with this specification and the special standards referenced in the Section and shall include pit-run backfill topped with minus 3/4-inch crushed rock, placed in maximum 8" lifts, and compaction to 95% ASTM D1557 to about 24 inches below finished grade.

B. Backfill preparations should not be commenced until sample analysis or site screening results are available to confirm a clean site, or levels of remaining in ground contamination are below regulatory limits and the results have been reviewed with the appropriate agencies.

C. Consent of the Engineer (BMEC) and governing agencies will be obtained prior to backfill of the excavation unless safety considerations dictate otherwise. A verbal OK from the Engineer via telephone to backfill is acceptable until written authorization is available.

3.8 SALE OR REUSE OF MATERIALS

A. Sale or reuse of materials salvaged from the site as part of this work is expressly prohibited. This includes excavated soils, piping and appurtenances.
Contaminated soils must be transported to a licensed treatment/disposal facility for disposal.

B. All disposal operations shall be documented with regard to the quantity and description of the materials disposed, the date and location of the licensed facility providing the service, copies of receipts and transaction records and an affidavit from the contractor confirming the information.

3.9 CLEANUP

The BMEC contractor shall be responsible for the cleanup and removal of all debris resulting from work under this project, with the exception of materials not specifically associated with the site cleanup scope of work.

3.12 SAMPLING AND TESTING

A. Soil and (groundwater if required) testing shall be conducted in accordance with Washington State Regulations.

B. Site Assessment. After site cleanup, a site assessment will be done by our Washington State registered Geologist.
During the cleanup work the excavation will be observed and field tested for contamination. If no obvious remaining contamination is evident, soil samples shall be collected as follows:
Discrete grab soil samples will be taken from the excavation pit and from the sidewalls of the excavation (if composite samples are taken, sample two (2) adjacent sides of the excavation at the same depth per composite sample). The amount of samples will be based on the size of the excavation.

In addition, a minimum number of discrete samples shall be collected from stockpiled excavated obviously clean overburden soil according to the following table:

Cubic Yards of Soil	Minimum Number of Samples
0 - 100	3
101 - 500	5
501 - 1000	7
1001 - 2000	10
> 2000	10 + 1 for each additional 500 cubic yards of soil

C. Site Screening (during excavation)

All samples are to be placed in quart jars* (half full) and covered with aluminum foil secured in place with a screw top. The samples will be allowed to equilibrate for fifteen minutes after which the probe of a direct reading instrument (PID) will be placed through the aluminum foil and the reading noted. If the reading is in excess of 50 ppm on the meter, excavation will continue until the soil indicates less than 50 ppm on the meter.

***This procedure can be substituted with Zip-Lock bags**

D. Soil Samples

When the reading indicates 50 ppm or less, a new sample will be collected near the last sample location and secured in an appropriate container (see 3 below). The sample shall be taken in a manner to provide a representative sample of the soil in the excavation and to prevent contamination of the sample. Identical duplicate samples shall be obtained for additional analysis if questions arise about the original analysis. The laboratory will retain the samples (refrigerated) for a period of 30 days.

E. Water Samples

If water is encountered and the direction of groundwater flow is known, a minimum of three (3) samples must be collected, one (1) up-gradient and two (2) down-gradient of the source. When the direction of the groundwater flow is unknown, at least four (4) groundwater samples must be collected, with one (1) groundwater sample collected midway along each of the four walls of the excavation. Samples shall be collected according to laboratory instruction in containers provided by the laboratory.

1. Samples shall be handled and transported in accordance with DOE sampling requirements which include Chain-of-Custody sample transmittal documentation, refrigerated storage of samples (4 grade C), and appropriate decontamination procedures.

2. Samples shall be analyzed in accordance with current procedures and protocols established by the Environmental Protection Agency. The laboratory shall be certified to perform the analysis and shall be pre-approved by the Consultant.

3. Quality assurance procedures shall be observed to maintain sample integrity. Sample containers shall be sized and pre-cleaned by the laboratory. QA/QC procedures shall include the use of laboratory prepared travel blanks and analysis duplicates if needed.

4. Sample results shall be reported verbally to the client within 7 business days of the sampling event. The final report shall include a sample location plan, copies of the Chain-of-Custody documentation, laboratory analysis reports including copies of QA/QC test results and supporting documentation.

F. Analysis of site specific soil and (if applicable groundwater) shall be done according to the following State of Washington DOE, and EPA prescribed analytical methods:

1. Soils shall be analyzed for Diesel Range Organics NWTPH-Dx
2. Benzene, Tolulene, Ethyl Benzene, and Xylenes (BTEX)
3. Poly-Aromatic Hydrocarbons (PAHs) and Naphtalene
4. Total Lead (for disposal profile)
5. TCLP-Lead (for disposal screening)

G. If ground water is detected in the excavations and contamination is confirmed, a certain number of groundwater monitoring wells would be required to be installed at the site by DOE.
However, at this point we are not sure if groundwater will be found or if it is impacted with petroleum hydrocarbons, and therefore we will not make any assumptions at this point of time.

City of Prosser
Washington
Determination of Non-significance (DNS).

Description of proposal: Install two new 20,000 gallon fuel tanks and one new 6,000 gallon diesel exhaust fluid tank, 6 new fuel islands and canopy, and remodel of existing building.
Proponent: Christensen LLC
Location of proposal: 101 Merlot Drive, Prosser, WA
Lead Agency: City of Prosser

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030 (2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

☐ There is no comment period for this DNS.

☒ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

☐ This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by _____.

Responsible Official: Steve Zetz
Position/Title: City Planner
Address: 601 7th Street, Prosser, WA
Date: April 29, 2014

X_____

☐ You may appeal this determination to_____ by sending your written comments
Prosser City Hall, 601 7th Street, Prosser, WA. 99350 (509) 786-2332 no later than _____. You should be prepared to make specific factual objections. Contact Prosser City Hall to read or ask questions about the procedures for SEPA appeals.

☐ There is no agency appeal

NOTE: Applicant must comply with all Washington State Department of Ecology requirements for soils clean-up, and tank instillation.