Phase II Site Assessment Report

Tiger Oil - East Nob Hill
1606 East Nob Hill Boulevard
Yakima, Washington

for

Washington State Department of Ecology

January 30, 2015

GeoEngineers
Earth Science + Technology

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File No. 0504-101-00

January 30, 2015

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ACRONYMS AND ABBREVIATIONS

bgs – below ground surface

BTEX – benzene, toluene, ethylbenzene and xylene

Cascade Drilling – Cascade Drilling, L.P.

CLARC – Cleanup Levels and Risk Calculation

COC – chain-of-custody

cPAH – carcinogenic polycyclic aromatic hydrocarbon

DOT – Department of Transportation

DRPH – diesel-range petroleum hydrocarbons

Ecology – Washington State Department of Ecology

EDB – ethylene dibromide

EDC – 1,2-dichloroethane

EPA – Environmental Protection Agency

ESA – environmental site assessment

ev – electron volt

GeoEngineers – GeoEngineers, Inc.

GPS – global positioning system

GRPH – gasoline-range petroleum hydrocarbons

HCID – hydrocarbon identification

IDW – Investigation-derived waste

LCS – laboratory control sample

LCSD – laboratory control sample duplicate

MRL – Method Reporting Limit

MS – matrix spike

MSD – matrix spike duplicate

ACRONYMS AND ABBREVIATIONS (CONTINUED)

MTBE – methyl tertiary butyl ether

MTCA – Model Toxics Control Act

NAD83 – North American Datum of 1983

NAVD88 – North American Vertical Datum of 1988

NRC – NRC Environmental Services, Inc.

ntu – nephelometric turbidity units

ORPH – oil-range petroleum hydrocarbons

PAH – polycyclic aromatic hydrocarbons

PID – photoionization detector

PLS – PLS, Inc.

POTW – Publicly Owned Treatment Works

ppm – parts per million

PVC – polyvinyl chloride

QA/QC – Quality Assurance/Quality Control

RPD – relative percent difference

SAP – Sampling and Analysis Plan

SDG – sample delivery group

TestAmerica – TestAmerica Laboratories, Inc.

TOC – total organic carbon

TPH – total petroleum hydrocarbons

UST – underground storage tank

VOCs – volatile organic compounds

WAC – Washington Administrative Code

1.0 INTRODUCTION

This report describes soil and groundwater assessment activities conducted at the Tiger Oil – East Nob Hill site at 1606 East Nob Hill Boulevard in Yakima, Washington (herein designated "site"). The site is located as shown in the attached Vicinity Map, Figure 1.

Activities conducted as part of the assessment included:

- Advancing six direct-push borings and collecting soil and grab groundwater samples in April 2014.
- Completing six test pit explorations and collecting soil samples in June 2014.
- Installing five groundwater monitoring wells and collecting soil samples in August 2014.
- Conducting the first quarterly groundwater monitoring event in September 2014.

This report includes a brief description of the site, a summary of our scope of services, a description of field activities, a summary of chemical and analytical results, and our interpretations and recommendations. Assessment activities were conducted in general accordance with the approved work plan (GeoEngineers, 2014a), test pit exploration work plan (GeoEngineers, 2014b) and supplemental monitoring well installation memo (GeoEngineers, 2014c). The work was performed under State of Washington Department of Ecology (Ecology) Contract No. C1100145, GeoEngineers Proposal No. 0504-101-00, dated March 6, 2014, and Work Assignment No. C11145RR.

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located at 1606 East Nob Hill Boulevard in Yakima, Washington. The site is bordered by arterial roadway East Nob Hill Boulevard to the north, residential housing and an automotive body shop to the south, South 16th Street to the west, and South 17th Street to the east, as shown on Site Plan and Sample Locations, Figure 2. The site operated as both a retail gas station and a bulk fuel facility where petroleum products were stored underground and then pumped to tanker trucks for delivery to other sites.

Available records indicate a release occurred at the site in 1962 when the station was known as Signal. In response to the release, replacement drinking water wells were installed. Records reviewed do not identify the size or extents of the release; however, they do indicate that monitoring or remediation was not required in response to the release (McCreedy, 2005).

In 1980, a release of approximately 11,335 gallons from product delivery lines was reported. An Ecology estimate at the time indicated the release might have been as large as 23,000 gallons. As a response to the release, recovery wells were installed and approximately 10,000 gallons of product reportedly were recovered (McCreedy, 2005). The release reportedly contaminated at least nine drinking water wells to the east and southeast up to three blocks away and resulted in a temporary closure of the Yakima Publicly Owned Treatment Works (POTW) until the flow of gasoline into the sewer system was stopped.

In 2005, 12 underground storage tanks (USTs) were removed from the property and underground fuel lines were drained and capped with quick setting cement. Ecology records indicated the presence of a 4,000-gallon waste oil tank that was not located during the tank removal efforts or site reconnaissance as

part of this investigation. A 3,500- to 4,000-gallon oil water separator was left onsite during tank removal efforts in 2005.

The site has been divided into two areas based upon the location of the USTs. A description of each area is as follows:

- Area 1 – Area 1 is located on the east part of the site and includes the retail fuel tank pit, fuel dispenser islands, pay kiosk and warehouse (Figure 2). The retail fuel tank pit contained three 20,000-gallon gasoline and one 20,000-gallon diesel USTs and was located between the warehouse and fuel dispenser islands.
- Area 2 – Area 2 is located on the west side of the site and includes the bulk fuel tank pit, oil water separator and tanker truck loading area (Figure 2). The bulk fuel tank pit contained four 20,000-gallon gasoline tanks, three 20,000-gallon diesel tanks and one 20,000-gallon Stoddard solvent tank.

The Kiosk and Office warehouse are the primary vertical structures remaining on-site (Figure 2). The condition of the structures was not evaluated as part of this assessment. Both structures had wooden boards covering the windows and access to the buildings was not provided. The Office warehouse has five bay doors facing East Nob Hill Boulevard and an elevated cement loading dock on the south side of the building. Curbing for the fuel dispenser islands was also present, although the fuel dispensers had been removed.

Upon removal, the tanks were examined by Tetra Tech FW, Inc., Tri-Valley Construction and Ecology. The tanks had minor surface rust and were reported to be in good condition with no visual evidence of leaks or holes in the tank bodies. However, some visual evidence of staining was observed on each of the USTs near the fill pipe and turbine unit as well as in the soil.

Site assessment activities during UST removal indicated concentrations of gasoline-range petroleum hydrocarbons (GRPH) and diesel-range petroleum hydrocarbons (DRPH) in soil were greater than Model Toxics Control Act (MTCA) Method A cleanup levels near tanks removed from the bulk fuel tank pit adjacent to the truck loading rack. Benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations were less than MTCA Method A cleanup levels. Four samples indicated DRPH contamination was present at a depth of approximately 14 feet below ground surface (bgs) in the southwest portion of the bulk fuel tank pit. One additional sample collected from below the piping at the bulk fuel tank pit indicated GRPH contamination was present at a depth of approximately 8 feet bgs (Tetra Tech, 2005b).

Samples collected from the retail fuel tank pit located near the Office/Warehouse UST excavation did not indicate the presence of petroleum hydrocarbons (Tetra Tech, 2005b). Fuel dispensers and product delivery lines were not assessed during the 2005 tank decommissioning work and the location of the underground delivery lines is not known.

3.0 SCOPE OF SERVICES

GeoEngineers prepared a Sampling and Analysis Plan (SAP), dated April 15, 2014, to guide assessment activities. Follow up memoranda describing test pit exploration methods and groundwater monitoring wells installation activities were provided to Ecology on June 9, 2014 and July 21, 2014 respectively. Site assessment activities included:

- Advancing six direct push borings (NHDP-1 through NHDP-6);
- Excavating six test pits (NHTP-1 through NHTP-6);
- Installing five groundwater monitoring wells (NHMW-1 through NHMW-5);
- Observing and documenting subsurface soil conditions for each boring and test pit;
- Conducting field screening activities and collecting soil samples from the explorations;
- Developing the new groundwater monitoring wells using surge and purge techniques;
- Collecting groundwater samples from each monitoring well and from five of the six borings;
- Submitting selected soil and groundwater samples for laboratory chemical analysis;
- Surveying the new groundwater monitoring wells for horizontal and vertical references;
- Conducting the first quarterly groundwater sample from the new wells; and
- Preparing investigation-derived waste (IDW) for disposal.

4.0 FIELD ACTIVITIES

For each exploration program, locations were marked in the field and a one-call utility locate was requested before equipment was mobilized to the site. A private utility locator (Utilities Plus, LLC) was also contracted to locate site utilities near proposed drilling locations before drilling activities commenced. Soil borings, well construction and well development activities were conducted by Cascade Drilling, L.P. (Cascade Drilling). Test pit explorations were performed by NRC Environmental Services, Inc. (NRC) of Pasco, Washington. Locations of the borings, test pits and groundwater monitoring wells were established in the field using a hand-held iPad with global positioning system (GPS) software before drilling commenced. The horizontal accuracy of the hand-held unit is within about 10 feet.

Direct-push soil borings were advanced on April 15, 2014, test pit explorations were completed June 12, 2014 and groundwater monitoring well installation activities were conducted between August 4 and August 8, 2014. GeoEngineers observed and documented field activities for compliance with the previously prepared guidance documentation (GeoEngineers, 2014a, 2014b and 2014c). GeoEngineers collected soil samples from the direct-push borings, test pits and well borings as they were advanced. Groundwater samples were also collected from temporary wells installed in five direct-push soil borings where groundwater was encountered.

Soil boring, test pit and new well locations are shown on Figure 2. Selected samples were submitted to TestAmerica Laboratories, Inc. (TestAmerica) and analyzed in general accordance with the project documents.

Groundwater monitoring wells were developed by Cascade Drilling and then surveyed by a licensed professional surveyor, PLS, Inc. (PLS), on August 27, 2014. Subsequent groundwater sampling of the new groundwater monitoring wells was conducted on September 15, 2014 by GeoEngineers. IDW was contained in 55-gallon drums, labeled and stored on the subject property pending profiling and disposal. Between generation and pickup for disposal, one 15-gallon drum of IDW water had been removed from the site. The drum was not recovered and its whereabouts are unknown. The missing 15-gallon drum was stored with the other IDW drums on-site in a discrete unsecured area.

Detailed descriptions of the soil borings, test pits explorations, well installations and groundwater sampling events are provided below.

4.1. Direct-Push Soil Borings

Six direct-push borings (NHDP-1 through NHDP-6) were advanced at the site on April 15, 2014 using a truck-mounted Geoprobe 6600 operated by Cascade Drilling. Approximate locations are provided on Figure 2. In general, GeoEngineers followed the process below during the drilling program:

- Notified the Call-Before-You-Dig utility notification service before beginning drilling activities;
- Subcontracted Utilities Plus, LLC to locate potential utilities near each explorations before drilling;
- Subcontracted Cascade Drilling to drill the direct-push soil borings at the site;
- Observed and documented subsurface soil conditions for each boring;
- Collected continuous soil samples during direct-push drilling. Select sub-samples were field-screened using visual observations, water sheen, and headspace vapor measurements with a photoionization detector (PID) to assess possible presence of petroleum-related contaminants;
- Collected grab water samples from temporary wells installed in borings where groundwater was encountered;
- Backfilled exploratory boreholes with bentonite and repaired the surface with cold patch asphalt as needed; and
- Submitted six soil samples and five groundwater samples to TestAmerica of Spokane, Washington for chemical analysis.

Each soil boring was advanced to refusal, which generally resulted in depths of approximately 15 to 25 feet bgs. Refusal was reached, when the limits of the equipment were reached and the push probe would not advance deeper into the subsurface. Observed subsurface conditions at the site during the test pit explorations ("Section 4.2") and groundwater well installations ("Section 4.3") indicate that gravels and cobbles were present near the boring termination depths. Groundwater was encountered at approximately 18 to 20 feet bgs in borings NHDP-2 through NHDP-6; NHDP-1 did not encounter groundwater.

Soil samples from NHDP-1, NHDP-2, NHDP-3 (two samples), NHDP-4, and NHDP-5 were submitted to TestAmerica for analysis. Duplicate samples were not collected because of minimal soil volume to conduct all laboratory analyses. Field screening did not indicate the presence of petroleum hydrocarbons from NHDP-6 and therefore a soil sample was not analyzed from this location to reduce analytical costs in concurrence with Ecology. Samples were not submitted for extractable petroleum hydrocarbon or volatile petroleum hydrocarbon analysis because field screening did not indicate the presence of petroleum hydrocarbons. Logs of direct-push borings are provided in Appendix A.

Groundwater samples were collected from temporary wells in borings NHDP-2, NHDP-3, NHDP-4, NHDP-5 and NHDP-6 and submitted to TestAmerica for analysis. Groundwater was not encountered in borings NHDP-1. Groundwater was sampled by installing a temporary well screen which ranged in length from 3 to 10 feet at the bottom of the boring (15 to 25 feet bgs) and lowering polyethylene tubing into the temporary well. The well was then purged using a peristaltic pump for approximately 3 to 5 minutes. Water was routed

through a water quality meter and flow through cell during well purging and then the flow through cell was disconnected and a sample of the water was collected for chemical analysis.

Soil and groundwater samples were placed into coolers containing ice and then delivered to TestAmerica under chain-of-custody for chemical analysis. Soil cuttings from the investigation were drummed, labeled and stored on the subject property pending profiling and disposal.

4.2. Test Pit Explorations

4.2.1. Test Pit Explorations

Six test pit explorations (NHTP-1 through NHTP-6) were excavated at the site on June 12, 2014 using a Takeuchi TB 285 excavator operated by NRC from Pasco, Washington. Test pits were terminated at the reach extent of the excavator, which was generally 13 to 14 feet bgs. Subsurface soil conditions were observed and documented for each test pit. Upon termination of each test pit exploration, excavated materials were placed into the excavation in approximately 1-foot lifts, and compacted with the excavator bucket before proceeding with subsequent lifts to the surface. Logs of test pits are provided in Appendix A.

Soil samples were generally collected from near the center of the excavator bucket, every 3 feet or in the event of a material change or indications of contamination. Samples were field-screened using visual observations, water sheen, and headspace vapor measurements with a PID to assess possible presence of petroleum-related contaminants. One sample from each test pit exploration indicating the highest level of petroleum contamination as indicated by field screening was submitted to TestAmerica for analysis. If samples did not indicate petroleum contamination, the sample collected nearest the bottom of the test pit was submitted for analysis. Groundwater seepage was not encountered in any of the test pit explorations.

4.2.2. Oil/Water Separator Investigation

The test pit exploration program included an investigation of a documented oil/water separator on-site. The oil/water separator was located and exposed west of test pit NHTP-4. The oil/water separator was a cylindrical steel constructed tank oriented north to south with an approximate footprint of 8½ feet wide by 18 feet long. The oil/water separator was fitted with a 4-inch-diameter capped cleanout at the south end. NRC removed the cap and measured the inside of the tank. Measured from the cleanout rim, the tank was approximately 10 feet deep with 6 feet of liquid inside. Headspace PID readings on the cleanout displayed 51.5 parts per million (ppm). The PID did not show any readings in the soil above the oil/water separator. The oil/water separator cleanout cap was secured (closed) and the excavation was backfilled with the overburden soils.

4.3. Monitoring Well Installation

Five groundwater monitoring wells (NHMW-1, NHMW-2, NHMW-3, NHMW-4 and NHMW-5) were installed at the site between August 4 and August 8, 2014 using a 200C Spider sonic drill rig operated by Cascade Drilling. Wells were installed by advancing a 5-inch-diameter core barrel inside a 6-inch-diameter casing. Approximate well locations are provided on Figure 2 and detailed well installation logs are provided in Appendix A. In general, GeoEngineers followed the process below:

- Notified the Call-Before-You-Dig utility notification service before beginning drilling activities.
- Subcontracted Utilities Plus, LLC to locate potential utilities near each explorations before drilling.

- Subcontracted Cascade Drilling to drill and construct the groundwater monitoring wells.
- Observed and documented subsurface soil conditions for each monitoring well.
- Collected continuous soil samples during drilling. Select sub-samples were field-screened using visual observations, water sheen, and headspace vapor measurements with a PID to assess possible presence of petroleum-related contaminants.
- Developed the groundwater monitoring wells using surging and pumping techniques.
- Submitted six soil samples (one from each well location and one duplicate) to TestAmerica for chemical analysis.
- Contracted with PLS to complete a horizontal and vertical survey of the wells.

NHMW-1 was advanced to a depth of 22 feet bgs. During drilling water was encountered at approximately 14 feet. The well was installed using 2-inch-diameter, schedule 40 polyvinyl chloride (PVC) pipe and screened from 12 to 22-feet bgs.

NHMW-2 was advanced to a depth of 22 feet bgs. During drilling water was encountered at approximately 14 feet. The well was installed using 2-inch-diameter, schedule 40 PVC pipe and screened from 12 to 22 feet bgs.

NHMW-3 was advanced to a depth of 22 feet bgs. During drilling water was encountered at approximately 15½ feet. The well was installed using 2-inch-diameter, schedule 40 PVC pipe and screened from 12 to 22 feet bgs.

NHMW-4 was advanced to a depth of 22 feet bgs. During drilling water was encountered at approximately 14 feet. The well was installed using 2-inch-diameter, schedule 40 PVC pipe and screened from 12 to 22 feet bgs.

NHMW-5 was advanced to a depth of 20 feet bgs. During drilling water was encountered at approximately 13 feet. The well was installed using 2-inch-diameter, schedule 40 PVC pipe and screened from 10 to 20 feet bgs.

Wells were packed with silica-sand up to 2 feet above the screen, sealed with bentonite chips to 1 foot bgs and then capped with a cement well monument for the remaining foot. Wells were developed by Cascade Drilling between August 14 and 15, 2014 using surge and purge methods. Soil cuttings and development water from the investigation were drummed, labeled and stored on the subject property pending profiling and disposal.

Discrete soil samples were collected for each monitoring well. Soil samples were field-screened to evaluate for petroleum hydrocarbons, using a PID and sheen pan. One soil sample from each well location was selected for chemical analysis by TestAmerica, based on the results of the field screening. If no obvious signs of contamination were present, the sample collected just above the observed water level was submitted for analysis. Soil samples were placed into coolers containing ice and then delivered to TestAmerica under chain of custody for chemical analysis.

The five new groundwater monitoring wells installed at the site were surveyed on August 27, 2014 by PLS. The north edge of the top of the PVC casing, and north side of the top of the well monument were surveyed

for horizontal and vertical coordinates relative to North American Datum of 1983 (NAD83) Washington South Zone and North American Vertical Datum of 1988 (NAVD88), respectively. PLS also marked the north side of each well casing for future depth to groundwater measurements. Well survey information is provided in Appendix C.

4.4. Subsurface Conditions

In general, the site is paved with exposed soil areas located at the former retail and bulk fuel tank pits. Varying amounts of base gravels, silts, sands and gravels are present beneath the pavement, with the predominant soil types consisting of silts and sands to about 5 to 15 feet bgs. Below the silts and sands, gravel was generally present to the termination depth of the explorations.

4.5. Groundwater Monitoring

In accordance with the SAP, the new groundwater monitoring wells will be sampled quarterly for 1 year. The first groundwater sampling event was conducted on September 15, 2014 after the wells had been surveyed and to allow for potential well settlement. The following sections provide a detailed description of the field activities conducted as part of the groundwater monitoring event.

4.5.1. Monitoring Well Headspace Vapor Monitoring

Monitoring well headspace vapors were measured using a PID. Headspace measurements were collected by inserting the PID probe into the well casing immediately after removing the well cap and recording the maximum observed concentration. Headspace vapor concentrations were less than 1.0 ppm for the monitoring wells, as shown in Summary of Groundwater Field Parameters, Table 1.

4.5.2. Groundwater Elevation Monitoring

Static depth to groundwater was measured in groundwater monitoring wells NHMW-1 through NHMW-5 using an electronic water level indicator. Depth to groundwater ranged from 12.49 feet (MW-5) to 14.98 feet (MW-3) below the top of well casing, as shown in Summary of Groundwater level Measurements, Table 2. Groundwater elevations ranged from about 1,006.94 feet in NHMW-5 to 1,008.52 feet in NHMW-1 relative to the NAVD88.

Based on groundwater elevations measured on September 15, 2014, groundwater flow in the shallow unconfined aquifer beneath the property generally was toward the southeast, as shown in Groundwater Elevation and Interpreted Flow Direction September 15, 2014, Figure 3. The estimated hydraulic groundwater gradient of the shallow aquifer beneath the site was about 0.004 feet per foot (about 21 feet per mile).

4.5.3. Groundwater Sampling

Groundwater monitoring wells were purged and sampled using dedicated tubing, a peristaltic pump and in general accordance with standard low-flow sampling methodology (Environmental Protection Agency [EPA], 1996). Groundwater quality parameters were usually measured at 3-minute intervals during well purging and samples were generally collected when water quality parameter stabilized in conformance with the criteria presented in Appendix A or 30 minutes of purging had elapsed.

Laboratory prepared sample containers were filled, placed into a cooler on ice and submitted to the analytical laboratory for chemical analysis. One sample from each well was measured for soluble ferrous

iron (Fe^{2+}) in the field using a Hach IR-18C color disc test kit and the 1,10 phenanthroline testing method. A duplicate sample was collected from NHMW-2. Groundwater chemical analytical results are discussed in "Section 5.2.2". Groundwater field parameters are provided in Table 1. Purge water generated during groundwater sampling was drummed, labeled and stored on the subject property pending profiling and disposal.

5.0 CHEMICAL ANALYTICAL RESULTS

5.1. Soil Chemical Analytical Results

5.1.1. Direct-Push Borings

Soil samples from the direct-push borings advanced on April 15, 2014 were received by TestAmerica for chemical analysis on April 17, 2014. Soil samples were kept in iced coolers between sampling and delivery to the analytical laboratory. One soil sample each from NHDP-1, NHDP-2, NHDP-3, NHDP-4 and NHDP-5 and an additional sample from NHDP-3 were submitted for laboratory chemical analysis. Field screening from NHDP-6 did not indicate the presence of petroleum and therefore a soil sample was not submitted for chemical analysis to reduce analytical costs. Soil samples from the direct-push soil borings were submitted for the following chemical analyses:

- GRPH (NWTPH-Gx);
- DRPH (NWTPH-Dx);
- Total petroleum hydrocarbons (TPH) (NWTPH-HCID), direct push soil borings only;
- BTEX (EPA 8260C);
- Naphthalene (EPA 8270D);
- Ethylene dibromide (EDB) (EPA 8011);
- 1,2-dichloroethane (EDC) (EPA 8260C);
- Methyl tertiary-butyl ether (MTBE) (EPA Method 8260C); and
- Total Lead (EPA 6010C).

Soil analytical results are summarized and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results - Soil, Table 3. Soil samples and chemical constituents analyzed for each of the direct push borings were either not detected or detected at concentrations less than MTCA Method A cleanup levels. Laboratory analytical reports are included in Appendix B.

5.1.2. Test Pit Explorations

One soil sample was submitted to TestAmerica for analysis from each of the six test pit explorations (NHTP-1 through NHTP-6). Soil samples from the test pit explorations were submitted or the following chemical analyses:

- GRPH (NWTPH-Gx);
- DRPH (NWTPH-Dx);

- TPH (NWTPH-HCID), direct-push soil borings only;
- BTEX (EPA 8260C);
- Naphthalene (EPA 8270D);
- EDB (EPA 8011);
- EDC (EPA 8260C);
- MTBE (EPA Method 8260C); and
- Total Lead (EPA 6010C).

Analytical results for the samples tested were either less than laboratory reporting limits or less than MTCA Method A cleanup levels. Analytical results are provided in Table 3.

5.1.3. Monitoring Well Installation

Five soil samples (one sample from each well installation) and one duplicate collected either from the unsaturated zone (NHMW-1 through NHMW-4) or from below the water table (NHMW-5) were shipped to TestAmerica. Soil samples from the monitoring well installations were submitted or the following chemical analyses:

- GRPH (NWTPH-Gx);
- DRPH (NWTPH-Dx);
- TPH (NWTPH-HCID), direct push soil borings only;
- BTEX (EPA 8260C);
- Polycyclic aromatic hydrocarbons (PAHs) (EPA 8270D);
- EDB (EPA 8011);
- EDC (EPA 8260C);
- MTBE (EPA Method 8260C); and
- Total Lead (EPA 6010C).

Soil samples from NHMW-3 and NHMW-4 were collected on August 4, 2014 and received by TestAmerica on August 7, 2014. Soil samples from NHMW-2 and NHMW-5 were collected on August 5, 2014 and received by TestAmerica on August 7, 2014. Soil samples from NHMW-1 and a duplicate sample from NHMW-1 were collected on August 8, 2014 and received by TestAmerica on August 12, 2014. Soil samples were kept in ice filled coolers between sampling and delivery to the analytical laboratory.

Soil analytical results are summarized and compared to MTCA Method A cleanup levels in Table 3. Carcinogenic PAH (cPAH) results are provided in Monitoring Well Installation, Soil PAH Chemical Analytical Results, Table 4. Soil samples and chemical constituents analyzed for each of the five monitoring wells and duplicate were either not detected or detected at concentrations less than MTCA Method A cleanup levels. Laboratory analytical reports are included in Appendix B.

5.2. Groundwater Chemical Analytical Results

5.2.1. Direct-Push Borings

Groundwater was encountered and sampled from NHDP-2, NHDP-3, NHDP-4, NHDP-5 and NHDP-6 on April 15, 2014. Groundwater was not encountered in NHDP-1. Groundwater samples collected from the direct-push borings were analyzed for GRPH, DRPH and heavy oil-range petroleum hydrocarbons (ORPH) using the NWTPH-HCID method. Analytical results indicated DRPH in NHDP-4 exceeded MTCA Method A cleanup levels. Result for the remaining locations and constituents were less than method reporting limits or MTCA Method A cleanup levels. Chemical analytical results are summarized and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results – Groundwater, Table 5.

5.2.2. Quarterly Groundwater Monitoring

Groundwater samples were collected from NHMW-1, NHMW-2, NHMW-3, NHMW-4, NHMW-5 and NHMW-6 on September 15, 2014 and received by TestAmerica for chemical analysis on September 19, 2014. Groundwater samples were kept in iced coolers between sampling and delivery to the analytical laboratory. Groundwater samples were submitted for the following chemical analyses:

- GRPH (NWTPH-GX);
- DRPH (NWTPH-DX, with and without silica gel);
- Volatile organic compounds (VOCs) (EPA 8260c);
- PAHs (EPA 8270D);
- Total organic carbon (TOC) (SM5310B); and
- Nitrate and Sulfate (EPA 300).

Chemical analytical results are summarized and compared to MTCA Method A cleanup levels in Table 5. PAH analytical results are summarized and compared to MTCA Method A cleanup levels in Summary of Chemical Analytical Results – Groundwater, PAHs, Table 6. Groundwater samples and chemical constituents analyzed for each of the five monitoring wells and duplicate were either not detected or detected at concentrations below MTCA Method A cleanup levels. DRPH was detected in NHMW-2 but was less than MTCA Method A cleanup levels. Chloroform was also detected in groundwater monitoring wells NHMW-1, NHMW-3, NHMW-4 and NHMW-5 but was less than the groundwater MTCA Method B cleanup level for cancer of 1.41 micrograms per liter for all wells (Cleanup Levels and Risk Calculation [CLARC], 2014). Laboratory analytical reports are included in Appendix B.

6.0 SUMMARY, INTERPRETATIONS AND RECOMMENDATIONS

6.1. Soil Assessment

Observed subsurface conditions below surface treatments generally indicate the site is underlain by sands and silts from near surface to depths of about 5 to 15 feet. Below the sands and silts is generally rounded gravels and cobbles with low concentrations of sand and silt to the extents of the explorations (25 feet).

6.2. Groundwater Assessment

Depth to groundwater was measured at the five groundwater monitoring wells in September 2014. Based on groundwater elevations measured on September 15, 2014, groundwater flow in the shallow unconfined aquifer beneath the property generally was toward the southeast (Figure 3). Estimated hydraulic gradient of the project area was about 0.004 feet per foot (about 21 feet per mile).

6.3. Chemical Analytical Results and Interpretations

6.3.1. Soil

Soil analytical results do not indicate the presence of petroleum contamination exceeding MTCA Method A cleanup levels in the soil samples and analyzed to date. GRPH was detected in NHDP-3, NHDP-4, NHTP-4, NHMW-1, and NHMW-2 but reported concentrations were less than MTCA Method A cleanup levels. DRPH was detected in NHDP-3, NHDP-4, NHDP-5, NHTP-4, NHMW-2 and NHMW-3 but reported concentrations were less than MTCA Method A cleanup levels. Lead was detected in all the soil samples except NHTP-3 and MHMW-1. Reported lead concentrations were less than MTCA Method A cleanup levels. Soil samples have been collected near the retail and bulk fuel tank pits and from areas surrounding the retail fuel dispenser islands. Soil analyzed from the southeast corner of the property and to the south along South 17th Street (downgradient) in the surrounding neighborhood, also have not indicated the presence of petroleum contamination greater than MTCA Method A cleanup levels.

6.3.2. Groundwater

Groundwater laboratory analytical results indicate contaminants of concern were less than MTCA Method A cleanup levels in groundwater samples collected from NHMW-1 through NHMW-5. Hydrocarbon identification (HCID) analysis indicated groundwater might exceed DRPH MTCA Method A cleanup levels for NHDP-4. Analytical methods using HCID analysis are generally not as accurate as other analytical methods and therefore the results should not be used to dictate cleanup actions. In addition, groundwater samples collected from the direct-push borings were generally turbid and analytical results might not be representative of actual groundwater conditions. The HCID analyses was used as a screening tool to guide monitoring well placement as a result of the direct push boings.

Chloroform was detected in groundwater samples from NHMW-1, NHMW-3, NHMW-4 and NHMW-5. Chloroform is typically a disinfection by-product commonly produced during the chlorination of water and wastewater (Ivahnenko, et al., 2006). The presence of chloroform in groundwater samples collected from site monitoring wells might be the result of leaking subsurface sewers, leaking water distribution lines or possible contamination at the laboratory. Concentrations of chloroform were less than the groundwater Method B cleanup level for cancer according to the CLARC May 2014 database.

6.4. Recommendations

Soil contamination greater than MTCA Method A cleanup levels was not observed in samples collected from the site and downgradient of the site. A groundwater well is not located in the northeast corner of the site and groundwater might not be fully characterized in this area. In addition, there is not a groundwater monitoring well installed near NHDP-4 or directly downgradient from this location to confirm the results of the HCID analysis. Groundwater sampled from NHDP-4 indicated DRPH greater than MTCA Method A cleanup levels at this location. Therefore the following is recommended:

- Installation of an additional well in the northeast portion of the site to assess downgradient flows from the fuel dispenser islands and fuel transfer lines.
- Installation of an additional monitoring well in the northwest corner near NHDP-4.
- Continued groundwater monitoring for three additional quarters.
- Issuance of a No Further Action notice and site closure if additional groundwater monitoring does not indicate the presence of petroleum contamination.

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TABLES

GeoEngineers

Table 1

Summary of Groundwater Field Parameters[1]

Tiger Oil East Nob Hill

Yakima, Washington

Well Number	Date Collected	pH	Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP - Field[2] (mV)	ORP - Normalized[3] (mV)	Turbidity (NTU)	Soluble Ferrous Iron (mg/L)	Monitoring Well Headspace[4] (ppm)
NHMW-1	09/15/14	6.58	17.70	0.19	7.10	301	502	0.54	0.0	0.3
NHMW-2	09/15/14	6.48	17.36	0.19	3.64	476	678	0.95	0.0	0.2
NHMW-3	09/15/14	6.52	16.62	0.20	6.30	508	710	0.16	0.0	0.3
NHMW-4	09/15/14	6.52	16.71	0.19	6.95	196	398	0.12	0.0	0.2
NHMW-5	09/15/14	6.82	16.21	0.19	5.91	516	719	2.50	0.0	0.1

Notes:

[1]Reported water quality parameters reflect stabilized conditions at the conclusion of well purging during low-flow sampling.

[2]Field ORP values are relative to the reference electrode associated with the multi-parameter meter.

[3]Normalized ORP values have been normalized, using algorithms provided by the instrument manufacturer, to the standard hydrogen electrode (SHE).

[4]Well headspace measurements were obtained using a photoionization detector immediately upon removal of the well's compression cap.

ORP = Oxidation reduction potential; °C = degrees Celsius; mS/cm = millisiemens per centimeter; mg/L = milligrams per liter; mV = millivolts; NT = not tested

Table 2

Summary of Groundwater Level Measurments

Tiger Oil East Nob Hill

Yakima, Washington

Well Number	Grid Northing[1] (feet)	Grid Easting[1] (feet)	Top of Casing Elevation[2] (feet)	Screen Elevation[2] (feet)	Date Measured	Depth to Groundwater[3] (feet)	Groundwater Elevation[2] (feet)	Change in Groundwater Elevation[4] (feet)
NHMW-1	456506.7	1645362.3	1,021.92	1009.92 to 999.92	09/15/14	13.40	1,008.52	NA
NHMW-2	456313.2	1645453.8	1,022.14	1010.14 to 1000.14	09/15/14	13.67	1,008.47	NA
NHMW-3	456202.2	1645683.2	1,022.18	1010.18 to 1000.18	09/15/14	14.98	1,007.20	NA
NHMW-4	456197.6	1645482.7	1,021.31	1009.31 to 999.31	09/15/14	13.56	1,007.75	NA
NHMW-5	455792.4	1645698.2	1,019.43	1009.43 to 999.43	09/15/14	12.49	1,006.94	NA

Notes:

[1]Grid northing and easting are referenced to NAD83, Washington State Plane Coordinate System, South Zone.

[2]Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).

[3]Depth to water measurements obtained from the north side of the top of PVC well casing.

[4]Represents change in groundwater elevation from previous monitoring event, as measured in monitoring wells.

ppm = parts per million; NA = Not Applicable; NM = Not Measured

Table 3

Summary of Chemical Analytical Results - Soil[1]

Tiger Oil East Nob Hill
Yakima, Washington

Boring		NHDP-1	NHDP-2	NHDP-3	NHDP-3	NHDP-4	NHDP-5	NHTP-1	NHTP-2	NHTP-3	NHTP-4	NHTP-5	NHTP-6	NHMW-1	DUPLICATE 2 (NHMW-1)	NHMW-2	NHMW-3	NHMW-4	NHMW-5
Sample Depth (feet)	Regulatory	2.5	21.5	20	20.5	20	21	9	13.5	10	13	14	3	13-14	13-14	14-15	8-9	12-13	14-15
Date Sampled	Levels[2]	04/15/14	04/15/14	04/15/14	04/15/14	04/15/14	04/15/14	06/12/14	06/12/14	06/12/14	06/12/14	06/12/14	06/12/14	08/08/14	08/08/14	08/05/14	08/04/14	08/04/14	08/05/14
Method EPA 8260C - NWTPH-Gx and Volatile Organic Compounds (mg/kg)																			
Gasoline-range hydrocarbons	30/100[3]	<4.99	<4.08	**68.8**	**7.65**	**6.63**	<2.91	<5.61	<6.17	<5.10	**11.0**	<5.52	<4.85	**7.19**	**5.85**	**5.01**	<5.29	<5.79	<5.01
Benzene	0.03	<0.00499	<0.00408	<0.00707	<0.00436	<0.00409	<0.00291	<0.0168	<0.0185	<0.0153	<0.0177	<0.0166	0.0189	<0.0177	<0.0167	<0.0139	<0.0159	<0.0174	<0.0150
Ethylbenzene	6	<0.0998	<0.0817	<0.141	<0.0872	<0.0819	<0.05	<0.112	<0.123	<0.102	<0.118	<0.110	<0.0969	<0.118	<0.112	<0.0930	<0.106	<0.116	<0.100
Toluene	7	<0.0998	<0.0817	<0.141	<0.0872	<0.0819	<0.0582	<0.112	<0.123	<0.102	<0.118	<0.110	<0.0969	<0.118	<0.112	<0.0930	<0.106	<0.116	<0.100
o-Xylene	9[4]	<0.200	<0.163	<0.283	<0.174	<0.164	<0.0582	<0.225	<0.247	<0.204	<0.235	<0.221	<0.194	<0.236	<0.223	<0.186	<0.212	<0.232	<0.200
m,p-Xylene	9[4]	<0.399	<0.327	<0.565	<0.349	<0.327	<0.233	<0.449	<0.493	<0.408	<0.471	<0.442	<0.388	<0.472	<0.446	<0.372	<0.424	<0.463	<0.401
Xylenes (total)	9[4]	<0.599	<0.490	<0.848	<0.523	<0.491	<0.349	<0.674	<0.740	<0.612	<0.706	<0.662	<0.582	<0.708	<0.670	<0.558	<0.635	<0.695	<0.601
Methyl t-butyl ether (MTBE)	0.1	<0.00599	<0.00490	<0.00848	<0.00523	<0.00491	<0.00349	<0.0337	<0.0370	<0.0306	<0.0353	<0.0331	<0.0291	<0.0354	<0.0335	<0.0279	<0.0318	<0.0347	<0.0301
1,2-Dichloroethane (EDC)	NE	<0.0998	<0.0817	<0.141	<0.0872	<0.0819	<0.0582	<0.112	<0.123	<0.102	<0.118	<0.110	<0.0969	<0.118	<0.112	<0.0930	<0.106	<0.116	<0.100
Method EPA 8011 - EDB (µg/kg)																			
1,2-Dibromoethane	5	<1.08	<0.974	<0.786	<0.828	<0.815	<0.843	<0.907	<0.00941	<0.998	<0.879	<0.901	<1.02	<1.04	<1.02	<0.998	<1.04	<0.801	<0.993
Method EPA 8270D - Naphthalene by GC/MS with Selected Ion Monitoring (mg/kg)																			
Naphthalene	5[5]	<0.0111	<0.0123	<0.0106	<0.0104	<0.0141	**0.0267**	<0.0151	<0.0198	<0.0170	<0.0147	<0.0200	<0.0182	<0.0206	<0.0210	<0.0207	<0.0206	<0.0208	<0.0190
2-Methylnaphthalene	5[5]	<0.0111	<0.0123	<0.0106	<0.0104	<0.0141	<0.0182	<0.0151	<0.0198	<0.0170	<0.0147	<0.0200	<0.0182	<0.0206	<0.0210	<0.0207	<0.0206	<0.0208	<0.0190
1-Methylnaphthalene	5[5]	<0.0111	<0.0123	<0.0106	<0.0104	<0.0141	<0.0182	<0.0151	<0.0198	<0.0170	<0.0147	<0.0200	<0.0182	<0.0206	<0.0210	<0.0207	<0.0206	<0.0208	<0.0190
Method NWTPH-Dx - Semivolatile Petroleum Products (mg/kg)																			
Diesel-range hydrocarbons	2,000	<20.9	<18.7	<19.0	**38.7**	**80.1**	**26.2**	<18.5	<19.6	<16.3	**162**	<20.0	<22.0	<10.6	<10.0	**33.1**	**26.4**	<9.97	<9.41
Heavy oil-range hydrocarbons	2,000	<52.3	<46.8	<47.6	**134**	**89.40**	<41.1	<46.2	<49.1	<40.7	**93.9**	<49.9	**122**	<26.4	<25.0	**145**	**98.3**	<24.9	<23.5
Method NWTPH-HCID - Hydrocarbon Identification (mg/kg)																			
Gasoline-range hydrocarbons	30/100	<43	<35	<42	<42	<35	<39	<35	<35	<33	<36	<36	<40	NA	NA	NA	NA	NA	NA
Diesel-range hydrocarbons	2,000	<110	<87	<100	<100	<87	<98	<88	<88	<84	**140**	<90	<100	NA	NA	NA	NA	NA	NA
Heavy oil-range hydrocarbons	2,000	<110	<87	<100	190	<87	<98	<88	<88	<84	**97**	<90	<100	NA	NA	NA	NA	NA	NA
Method EPA 6010C - Metals Content (mg/kg)																			
Lead	250	**7.33**	**5.44**	**3.32**	**4.26**	**11.1**	**2.76**	**2.96**	**2.47**	<2.27	**4.37**	**2.36**	**89.8**	<1.20	<1.17	**22.0**	**25.1**	**2.94**	**1.58**

Notes:

[1]Chemical analyses conducted by TestAmerica of Spokane, Washington.

[2]Regulatory level refers to Washington State Model Toxics Control Act (MTCA) Method A cleanup level unless otherwise footnoted.

[3]Gasoline-range petroleum hydrocarbon cleanup levels in soil are 30 mg/kg when benzene is detected and 100 mg/kg when benzene is not detected.

[4]Cleanup level for total xylenes.

[5]Cleanup level refers to sum of naphthalenes.

mg/kg = milligrams per kilogram; EPA = Washington State Environmental Protection Agency; NE = not established NA = not analyzed

Bold indicates analyte concentration exceeds laboratory reporting limit.

Table 4

Monitoring Well Installation, Soil PAH Chemical Analytical Results[1]

Tiger Oil East Nob Hill

Yakima, Washington

				Carcinogenic PAHs																		
				Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	cPAH TEQ[2]	Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(ghi)perylene
Location			TEF[2]	0.1	1.0	0.1	0.1	0.01	0.1	0.1												
	Sample ID	Date Collected	Depth (ft)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Tiger Oil - East Nob Hill	NWMW-1	08/08/14	13-14	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0124	<0.0206	0.03	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206
	DUPLICATE-2	08/08/14	13-14	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0126	<0.0210	0.03	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210	<0.0210
	NHMW-2	08/05/14	14-15	**0.0483**	**0.0580**	**0.0732**	**0.0221**	**0.0621**	**0.0152**	**0.0373**	0.08	<0.0207	<0.0207	<0.0207	<0.0207	<0.0207	<0.0207	**0.0414**	<0.0207	**0.0677**	**0.0773**	**0.0470**
	NHMW-3	08/05/14	8-9	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0123	<0.0206	0.03	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206	<0.0206
	NHMW-4	08/05/14	12-13	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0125	<0.0208	0.03	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208	<0.0208
	NHMW-5	08/05/14	14-15	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0114	<0.0190	0.03	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190
MTCA Method A Unrestricted Land Use CUL[3]				NE	0.1	NE	NE	NE	NE	NE	0.1	5[4]			NE	NE	NE	NE	NE	NE	NE	NE

Notes:

[1]Polycyclic aromatic hydrocarbons (PAHs) analyzed using EPA Method 8270D by TestAmerica Laboratories, Inc., in Spokane, Washington.

[2]Carcinogenic PAH (cPAH) toxic equivalency (TEQ) calculated using toxicity equivalency factors (TEF) from MTCA Table 708-2, based on methodology described in MTCA Cleanup Regulation WAC 173-340-708. Reporting limits were conservatively used to calculate the TEQ.

[3]Model Toxics Control Act (MTCA) Method A unrestricted land use cleanup levels.

[4]Total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.

mg/kg = milligrams per kilogram; NE = Not Established.

Bold indicates analyte concentration exceeds laboratory reporting limit.

Table 5

Summary of Chemical Analytical Results - Groundwater[1,2]

Tiger Oil East Nob Hill

Yakima, Washington

Boring or Well ID / Date Sampled	Method A Cleanup Levels[3]	Method B Cleanup Levels[4]	NHDP-2 4/15/2014	NHDP-3 4/15/2014	NHDP-4 04/15/14	NHDP-5 04/15/14	NHDP-6 4/15/2014	NHMW-1 9/15/2014	NHMW-2 9/15/2014	Duplicate (MW-2) 9/15/2014	NHMW-3 9/15/2014	NHMW-4 9/15/2014	NHMW-5 9/15/2014
Method NWTPH-HCID - Hydrocarbon Identification (µg/L)													
Gasoline-range hydrocarbons	800/1,000		<650	<620	<620	<610	<620	NT	NT	NT	NT	NT	NT
Diesel-range hydrocarbons	500		<650	<620	**1,500**	<610	<620	NT	NT	NT	NT	NT	NT
Heavy oil-range hydrocarbons	500		<650	<620	<620	<610	<620	NT	NT	NT	NT	NT	NT
Conventionals (mg/L)													
Nitrate-Nitrogen	10[5]		NT	NT	NT	NT	NT	**2.49**	**1.82**	**1.85**	**2.92**	**2.51**	**2.78**
Sulfate	250[6]		NT	NT	NT	NT	NT	**9.48**	**14.4**	**14.3**	**13.1**	**10.5**	**12.1**
Alkalinity, Total	NE		NT	NT	NT	NT	NT	**70.0**	**77.5**	**75.0**	**70.0**	**70.0**	**70.0**
Total Organic Carbon	NE		NT	NT	NT	NT	NT	**1.30**	**2.47**	**2.10**	**1.30**	**1.31**	**1.32**
Method NWTPH-Gx - Gasoline Range (µg/L)													
Gasoline-range hydrocarbons	800/1,000		NT	NT	NT	NT	NT	<100	<100	<100	<100	<100	<100
Method NWTPH-Dx - Diesel Range (µg/L)													
Diesel-range hydrocarbons	500		NT	NT	NT	NT	NT	<229	**388**	**433**	<229	<229	<230
Diesel-range hydrocarbons w/silica gel	500		NT	NT	NT	NT	NT	NT	<229	<230	NT	NT	NT
Heavy Oil-Range Hydrocarbons	500		NT	NT	NT	NT	NT	<382	<382	<384	<382	<381	<383
Heavy Oil-Range Hydrocarbons w/silica gel	500		NT	NT	NT	NT	NT	NT	<382	<384	NT	NT	NT
Method EPA 8260 - VOCs (µg/L)													
1,1,1,2-Tetrachloroethane		1.68	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	200		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane		0.219	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)		240,000	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane		0.768	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane		7.68	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene		0.481	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloropropene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichloropropane		0.00146	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene		1.51	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trimethylbenzene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane		0.0547	NT	NT	NT	NT	NT	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-dibromoethane (EDB)	0.01		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene (o-Dichlorobenzene)		7.20	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane (EDC)	5		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane		1.22	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene		80	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene (m-Dichlorobenzene)		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Boring or Well ID	Method A	Method B	NHDP-2	NHDP-3	NHDP-4	NHDP-5	NHDP-6	NHMW-1	NHMW-2	Duplicate (MW-2)	NHMW-3	NHMW-4	NHMW-5
Date Sampled	Cleanup Levels[3]	Cleanup Levels[4]	4/15/2014	4/15/2014	04/15/14	04/15/14	4/15/2014	9/15/2014	9/15/2014	9/15/2014	9/15/2014	9/15/2014	9/15/2014
1,4-Dichlorobenzene (p-Dichlorobenzene)		8.1	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane		0.438	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2-Butanone (MEK)		4,800	NT	NT	NT	NT	NT	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Butanone, 4-(Acetyloxy)-		4,800	NT	NT	NT	NT	NT	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene		160	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2-Hexanone		NE	NT	NT	NT	NT	NT	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Propanol, 2-methyl-		NE	NT	NT	NT	NT	NT	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
4-Chlorotoluene		160	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone		7,200	NT	NT	NT	NT	NT	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Benzene	5		NT	NT	NT	NT	NT	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Bromobenzene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromodichloromethane		0.706	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform (Tribromomethane)		5.54	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromomethane		11.2	NT	NT	NT	NT	NT	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Carbon Disulfide		800	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon Tetrachloride		0.625	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene		160	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroethane		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroform		1.41	NT	NT	NT	NT	NT	**1.34**	<1.00	<1.00	**1.13**	**1.32**	**1.16**
Chloromethane		NE	NT	NT	NT	NT	NT	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Cis-1,3-Dichloropropene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dibromochloromethane		0.521	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dibromomethane		80	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane (CFC-12)		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	700		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
HCFC-21		NE	NT	NT	NT	NT	NT	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Hexachlorobutadiene		0.561	NT	NT	NT	NT	NT	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Hexane		480	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene (Cumene)		800	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl t-butyl ether (MTBE)	20		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	5		NT	NT	NT	NT	NT	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	160		NT	NT	NT	NT	NT	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
n-Butylbenzene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
n-Propylbenzene		800	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Sec-Butylbenzene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene		1,600	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tert-Butylbenzene		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	5		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	1,000		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trans-1,2-Dichloroethene		0.481	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trans-1,3-Dichloropropene		0.438	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Boring or Well ID Date Sampled	Method A Cleanup Levels[3]	Method B Cleanup Levels[4]	NHDP-2 4/15/2014	NHDP-3 4/15/2014	NHDP-4 04/15/14	NHDP-5 04/15/14	NHDP-6 4/15/2014	NHMW-1 9/15/2014	NHMW-2 9/15/2014	Duplicate (MW-2) 9/15/2014	NHMW-3 9/15/2014	NHMW-4 9/15/2014	NHMW-5 9/15/2014
Trichloroethene	5		NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane (CFC-11)		NE	NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	0.2		NT	NT	NT	NT	NT	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Xylene, m-,p-	1,000[7]		NT	NT	NT	NT	NT	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Xylene, o-			NT	NT	NT	NT	NT	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Notes:

[1]Chemical analyses conducted by TestAmerica of Spokane, Washington.

[2]Analytes presented either have applicable cleanup levels or were detected at concentrations greater than reporting limits. Additonal analyte results are provided in the analytical reports.

[3]Regulatory level refers to Washington State Model Toxics Control Act (MTCA) Method A cleanup level, the maximum contaminant level (MCL) or the secondary maximum contaminant level (SMCL).

[4]Groundwater Method B cancer cleanup level, CLARC Data Tables, May 2014

[5]MCL established by Title 40, Volume 19 of the Code of Federal Regulations.

[6]SMCL recommeded by the Environmental Protection Agency.

[7]Cleanup level for total xylenes.

µg/L = micrograms per liter

Bold indicates analyte concentration exceeds laboratory reporting limit.

Red Bold and outline indicates analyte concentration exceeds referenced regulatory level.

Table 6

Monitoring Well, Groundwater PAH Chemical Analytical Results[1]

Tiger Oil East Nob Hill
Yakima, Washington

Location			Carcinogenic PAHs																		
			Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	cPAH TEQ[2]	Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(ghi)perylene
	TEF[2]		0.1	1	0.1	0.1	0.01	0.1	0.1												
	Sample ID	Date Collected	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Tiger Oil - East Nob Hill	NHDP-2	04/15/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	NHDP-3	04/15/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	NHDP-4	04/15/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	NHDP-5	04/15/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	NHDP-6	04/15/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	NHMW-1	09/15/14	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	0.07	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938	<0.0938
	NHMW-2	09/15/14	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	0.07	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
	Duplicate (MW-2)	09/15/14	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	0.07	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949	<0.0949
	NHMW-3	09/15/14	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	0.07	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962	<0.0962
	NHMW-4	09/15/14	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	0.07	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956	<0.0956
	NHMW-5	09/15/14	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	0.07	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952	<0.0952
MTCA Method A Unrestricted Land Use CUL[3]			NE	0.1	NE	NE	NE	NE	NE	0.1	5[4]			NE	NE	NE	NE	NE	NE	NE	NE

Notes:

[1]Polycyclic aromatic hydrocarbons (PAHs) analyzed using EPA Method 8270D by TestAmerica Laboratories, Inc., in Spokane, Washington.

[2]Carcinogenic PAH (cPAH) toxic equivalency (TEQ) calculated using toxicity equivalency factors (TEF) from MTCA Table 708-2, based on methodology described in MTCA Cleanup Regulation WAC 173-340-708. One half the reporting limit was used to calculate the TEQ.

[3]Model Toxics Control Act (MTCA) Method A unrestricted land use cleanup levels.

[4]Total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.

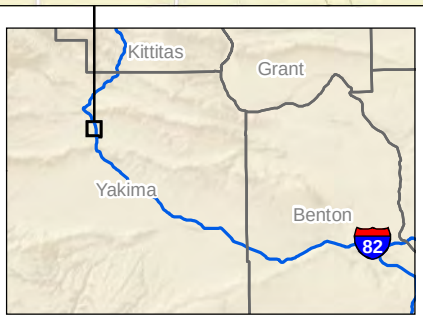
µg/L = micrograms per liter; NE = Not Established.

Bold indicates analyte concentration exceeds laboratory reporting limit.

Red Bold and outline indicates analyte concentration exceeds referenced regulatory level.

FIGURES

GeoEngineers



2,000 0 2,000

Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
Data Sources: ESRI Data & Maps, Street Maps 2008.
Base map from ESRI Data Online.
Projection: NAD 1983, UTM Zone 10 North.

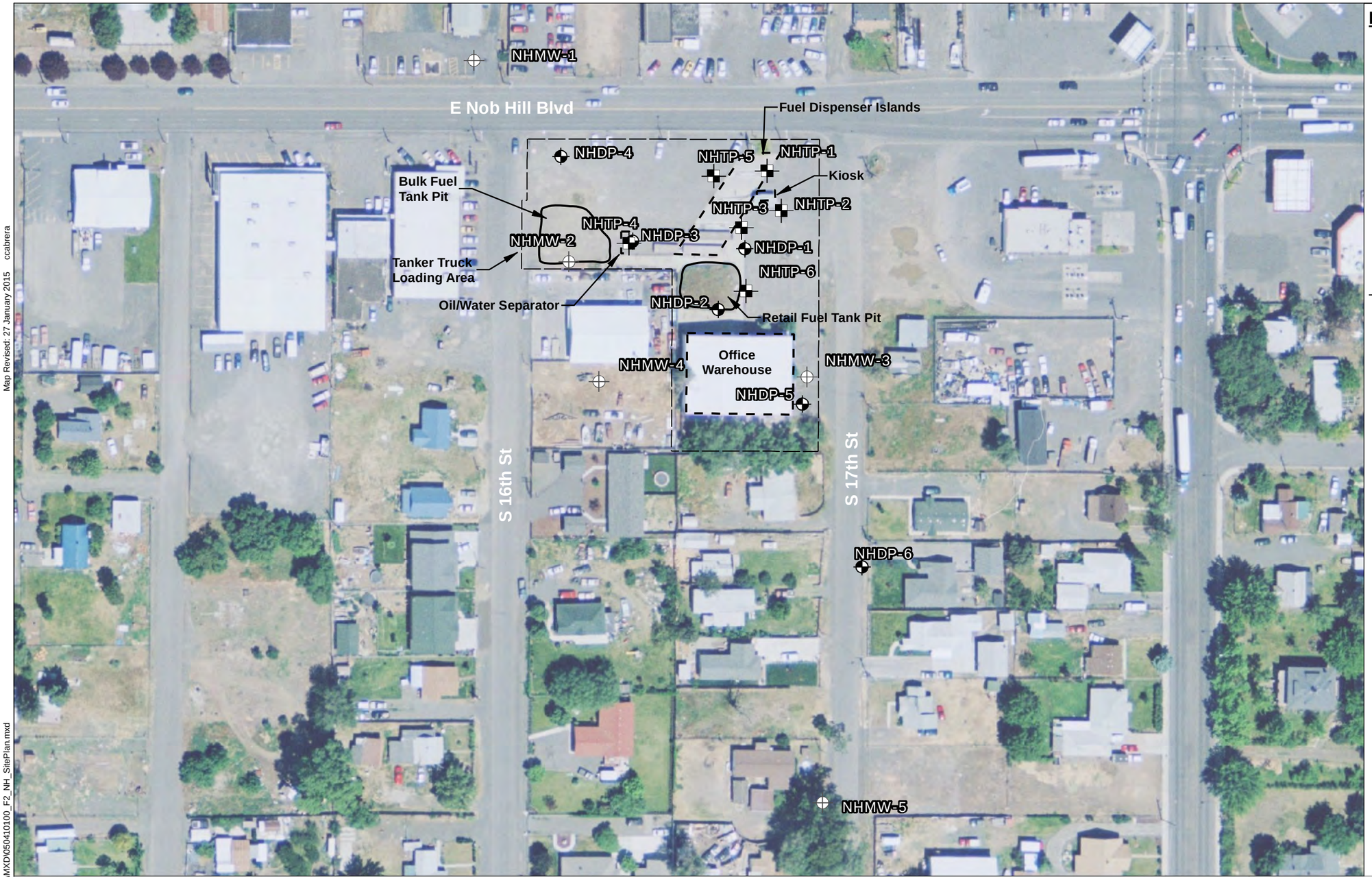
Vicinity Map

Tiger Oil East Nob Hill
Yakima, Washington

GeoEngineers

Figure 1

Office: PORT Path: P:\0\0504101_GIS\MXD\050410100_F1_VM_ENH.mxd Map Revised: 11 September 2014 ccabrera



Legend

- NHDP-1 — Boring Number and Approximate Location
- NHTP-1 — Test Pit Number and Approximate Location
- NHMW-1 — Monitoring Well Number and Approximate Location
- Approximate Former Tank Pit Locations
- Approximate Site Feature Locations
- Approximate Property Boundary

N W E S

100 0 100
Feet

Data Source: Aerial base from ArcGIS Online.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Site Plan and Sample Locations

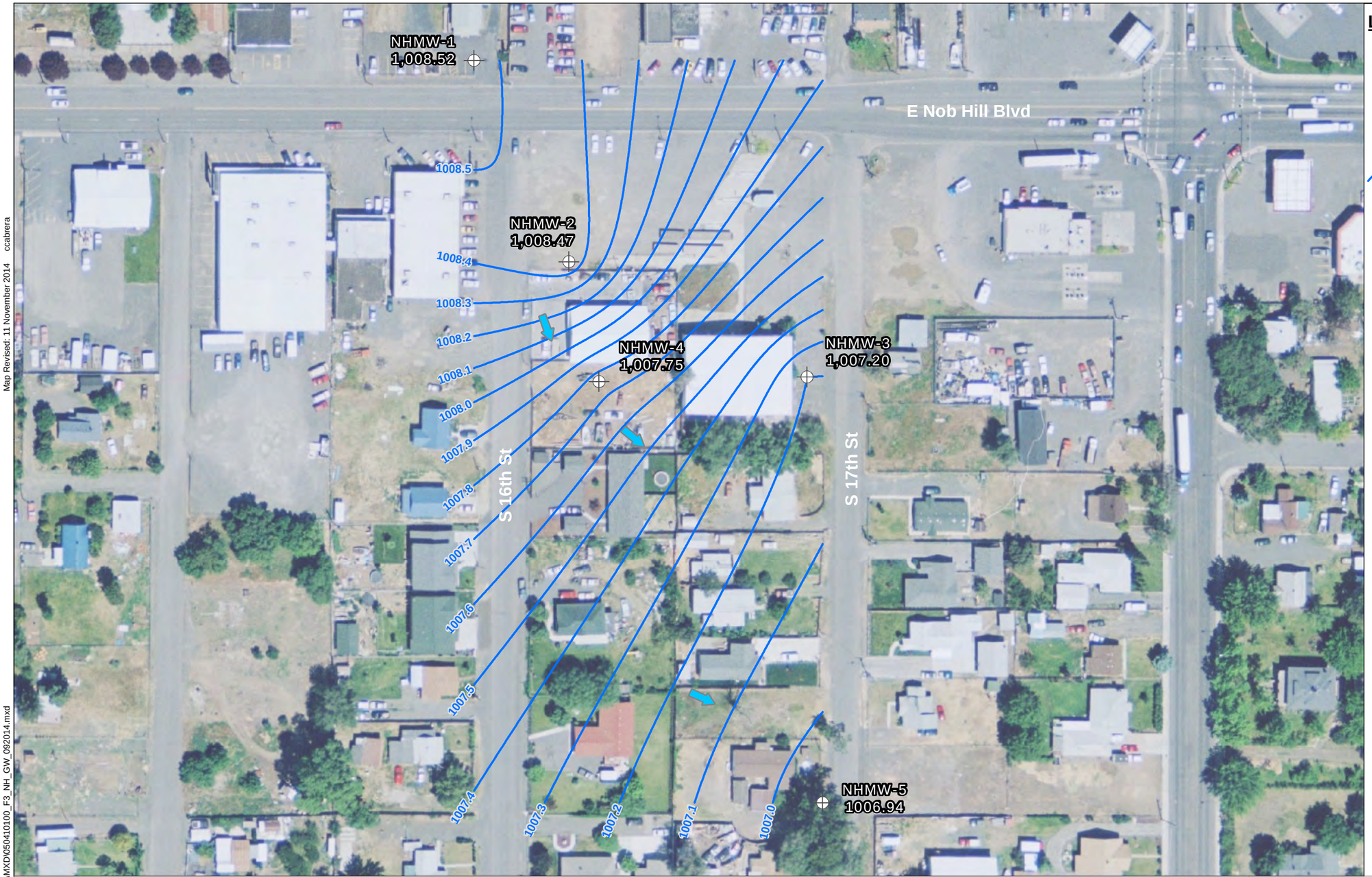
Tiger Oil East Nob Hill
Yakima, Washington

GeoEngineers

Figure 2

Map Revised: 27 January 2015 ccabrera

Office: PORT Path: P:\0\09504101_GIS\MXD\09504101_F2_NH_SitePlan.mxd



Legend

- NHMW-1 — Monitoring Well Number and Approximate Location
- Estimated Groundwater Flow Direction
- 1007.0 — Approximate Groundwater Elevation Contours (0.1-foot Interval)

N
W E
S

100 0 100
Feet

Data Source: Aerial base from ArcGIS Online.

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Groundwater Elevation and Interpreted Flow Direction, September 15, 2014

Tiger Oil East Nob Hill
Yakima, Washington

GeoEngineers

Figure 3

Map Revised: 11 November 2014 ccabrera

Path: P:\0\09504101_GIS\MXD\0504101100_F3_NH_GW_092014.mxd

Office: PORT

APPENDICES

GeoEngineers

APPENDIX A
Field Methods and Boring Logs

APPENDIX A
FIELD METHODS AND BORING LOGS

General Soil Sampling Procedures

Samples were obtained using disposable nitrile gloves which were discarded after each use. Samples were placed in 4- or 9-ounce laboratory-supplied sample containers. Sample containers were filled to minimize headspace and labeled with a unique identification. Confirmation samples analyzed for VOCs were obtained using EPA Method 5035 sampling procedures. Samples were temporarily stored in an iced cooler before transfer to TestAmerica's Spokane Valley, Washington laboratory for analysis. Chain-of-custody (COC) protocols were followed.

Field Screening of Soil Samples

A GeoEngineers representative performed field screening of soil samples obtained during drilling activities. Field screening results are used as a general guideline to delineate depths with possible petroleum-related contamination. The screening methods used include: (1) visual screening; (2) water sheen screening; and (3) headspace vapor screening using a MiniRae PID calibrated to isobutylene.

Visual screening consists of inspecting the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbon concentrations are high. Water sheen screening is a more sensitive method that has been effective in evaluating whether contaminant concentrations are less than regulatory cleanup guidelines.

Water sheen screening involves placing soil in water and observing the water surface for signs of sheen. Sheen screening might detect both volatile and nonvolatile petroleum hydrocarbons. Sheen classifications are as follows:

No Sheen	No visible sheen on water surface.
Slight Sheen	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil might produce a slight sheen.
Moderate Sheen	Light to heavy sheen; might have some color/iridescence; spread is irregular to flowing, might be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen	Heavy sheen with color/iridescence; spread is rapid; entire water surface might be covered with sheen.

Headspace vapor screening involved placing a soil sample in a plastic sample bag. Air was captured in the bag, and the bag was shaken to expose the soil to the air trapped in the bag. The probe of the PID was then inserted into the bag to measure VOCs in the air within the bag. In this application, the PID measured concentration of organic vapors ionizable by a 10.6 electron volt (ev) lamp in the range between 1.0 and 2,000 ppm, with a resolution of +/- 2 ppm.

Field screening results are site-specific. The effectiveness of field screening results will vary with temperature, moisture content, organic content, soil type and type and age of contaminant. The presence

or absence of a sheen or headspace vapors does not necessarily indicate the presence or absence of petroleum hydrocarbons.

Monitoring Well Construction, Development and Surveying

The groundwater monitoring wells were constructed in general accordance with Chapter 173-160, Section 400 of the *Washington Administrative Code* (WAC), titled "Washington State Resource Protection Well Construction Standards." Monitoring well records were submitted in accordance with Washington State monitoring well construction standards. Monitoring well installations were observed and documented by a GeoEngineers field representative.

The groundwater monitoring wells were installed using sonic drilling equipment and were constructed of 2-inch-diameter, Schedule 40 PVC casing and 0.01-inch slot width well screens. Well screen depths were based on groundwater conditions observed in the field such that the top of the shallow water table intercepted the well screen.

Each well was constructed with a bentonite seal and a flush-mount surface monument. A lockable cap was installed in the top of the PVC well casing. A concrete surface seal was placed around the monument at the ground surface to divert surface water away from the well location. Each well was developed using surging and pumping; wells were surged and then pumped until the development water was clear. This process was repeated until at least approximately five well volumes were removed from the well.

The monitoring well was developed to remove water introduced into the well during drilling (if any), stabilize the filter pack and formation materials surrounding the well screen, and restore the hydraulic connection between the well screen and the surrounding soil. The depth to water in the monitoring well was measured prior to development. The total depth of the well was measured and recorded. The groundwater monitoring wells were developed by pumping, surging, bailing, or a combination of these methods after construction. Development of the well continued until the water was as free of sediment as practicable, with respect to the composition of the subsurface materials within the screened interval. The removal rate and amount of groundwater removed was recorded during the well development procedures. Development purge water was collected and stored on site.

The locations of the groundwater monitoring wells were established in the field using a hand-held iPad with GPS software, and subsequently surveyed by a licensed surveyor.

Depth to Groundwater

Depth to groundwater measurements from the new wells were collected and recorded in the field notebook after the water level stabilized after well development. Depth to groundwater relative to the marked north side of the monitoring well casing rims was measured to the nearest 0.01 foot using an electronic water level indicator and recorded in the field notebook. Groundwater elevation was calculated by subtracting the depth-to-water measurement from the surveyed casing rim elevation. The electronic water level indicator was decontaminated with Liquinox® solution wash and a distilled water rinse prior to use in each well.

Groundwater Sampling

Following depth to groundwater measurements, groundwater samples were collected from the installed groundwater monitoring wells consistent with the EPA's low-flow groundwater sampling procedures (EPA, 1996 and Puls and Barcelona, 1996). Dedicated polyethylene tubing and a portable peristaltic pump

were used for groundwater purging and sampling. During purging activities, water quality parameters, including pH, temperature, conductivity, dissolved oxygen, and turbidity were measured using a multi-parameter meter equipped with a flow-through cell. Groundwater samples were collected after (1) water quality parameters stabilized; or (2) a maximum purge time of 30 minutes was achieved. During purging and sampling, drawdown was not allowed to exceed 0.3 feet and the purge rate did not exceed 400 milliliters per minute. Water quality parameter stabilization criteria included the following:

- Turbidity: ±10 percent for values greater than 5 nephelometric turbidity units (ntu);
- Conductivity: ±3 percent;
- pH: ±0.1 unit;
- Temperature: ±3 percent; and
- Dissolved oxygen: ± 10 percent.

Field water quality measurements and depth-to-water measurements were recorded on a Well Purging-Field Water Quality Measurement Form. The groundwater samples were transferred in the field to laboratory-prepared sample containers and kept cool during transport to the testing laboratory. COC procedures were observed from the time of sample collection to delivery to the testing laboratory consistent with the Quality Assurance Project Plan.

Location Control

The locations of the borings and groundwater monitoring wells were established in the field using a hand-held iPad with GPS software. The horizontal accuracy of the hand-held unit is within about 10 feet. Upon completion, horizontal and vertical locations of the groundwater monitoring wells were surveyed by a licensed professional surveyor and referenced to NAD83 and NAVD88, respectively. The horizontal coordinates of the groundwater monitoring wells and the elevation of the benchmark established at the site were determined using a Topcon GR-3 GPS receiver with a nominal accuracy of 10 mm + 1 ppm horizontal and 15 mm + 1 ppm vertical. The elevation of the monitoring wells are relative to the benchmark established at the site and were individually determined using a Leica DNA03 digital level with a vertical accuracy of +/- 0.01 feet.

Decontamination Procedures

The objective of the decontamination procedure was to minimize the potential for cross contamination between exploration locations and between individual samples within a specific exploration. A designated decontamination area was established for decontamination of drilling equipment and reusable sampling equipment. Drilling equipment was cleaned using pressure washing equipment.

Sampling or measurement equipment was decontaminated in accordance with the following procedures before each sampling attempt or measurement:

- Brush equipment with a wire brush, if necessary, to remove large particulate matter.
- Rinse with potable tap water.
- Wash with non-phosphate detergent solution (Liquinox® and potable tap water).
- Rinse with potable tap water.

- Rinse with distilled water.

Handling of Investigation-Derived Waste

IDW (drill cuttings and development and purge water), was placed in U.S. Department of Transportation (DOT) approved 55-gallon drums. The drums were labeled with the exploration number, general contents, and date. IDW generated on site was placed in drums and is pending pickup for disposal at an appropriate facility.

Disposable items, such as sample tubing, direct-push sampler acrylic sleeves, gloves and paper towels, etc., were placed in plastic bags after use and deposited in trash receptacles for disposal.

Laboratory Analytical Plan

Method Reporting Limit (MRL) goals were based on Ecology MTCA soil or groundwater cleanup criteria. The following methods were used for the soil and groundwater samples:

Soil

- GRPH (NWTPH-Gx);
- DRPH (NWTPH-Dx);
- TPH (NWTPH-HCID), direct-push soil borings only;
- BTEX (EPA 8260C);
- PAHs (EPA 8270D);
- EDB (EPA 8011);
- EDC (EPA 8260C);
- MTBE (EPA Method 8260C); and
- Total Lead (EPA 6010C).

Groundwater

- GRPH (NWTPH-GX);
- DRPH (NWTPH-DX);
- VOCs (EPA 8260c);
- PAHs (EPA 8270D);
- TOC (SM5310B);
- Nitrate and Sulfate (EPA 300); and
- Ferrous Iron (Field Test, Hach 26672-88).

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/15/2014	4/15/2014	15	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		51			NHDP-1:2.5' CA			AC	Approximately 3 inches asphalt concrete pavement			
									ML	Brown silt with gravel and trace sand (very dense, moist)			
	5		36						GP	Gray sandy gravel with trace silt and gravel (very dense, moist)	NS	<1	
	10		30						GP	Brown sandy gravel with trace silt and gravel (very dense, moist)	NS	<1	
	15										NS	<1	No groundwater observed during drilling

Note: See Figure A-1 for explanation of symbols.

Log of Boring NHDP-1

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-2
Sheet 1 of 1

Drilled	Start 4/15/2014	End 4/15/2014	Total Depth (ft) 25	Logged By JML / Checked By JER	Driller Cascade	Drilling Method Geoprobe
Surface Elevation (ft) Vertical Datum	Undetermined		Hammer Data		Drilling Equipment	Geoprobe 6600 Truck Mount
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured	Depth to Water (ft) 19.0 / Elevation (ft)
Notes:					4/15/2014	

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		26						ML	Brown gravelly silt with trace sand (medium dense to very dense, moist)			
	5		24						GM	Brown silty gravel with trace sand (very dense, moist to wet)	NS	<1	
	10		34						GM	Brown silty gravel with trace sand (very dense, moist to wet)	NS	<1	
											NS	<1	
									GP	Brown sandy gravel with trace silt (medium dense, moist)			
											NS	<1	
	15		51						GP	Gray sandy gravel with trace silt (very dense, moist)			
							▼						Groundwater observed at approximately 19 feet during drilling
	20		50			NHDP-2:21.5' CA			GP	Brown sandy gravel with trace silt (very dense, moist)	NS	<1	
	25										NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring NHDP-2

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-3
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/15/2014	4/15/2014	22	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		4/15/2014	20.0	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		38						AC	Approximately 3 inches asphalt concrete pavement	NS	<1	
									GP	Brown sandy gravel with trace silt (medium dense, moist)	NS	<1	
									ML				
									GP	Brown clayey silt with trace sand and trace gravel (very dense, moist)	NS	<1	
										Gray silty gravel with trace sand (very dense, moist)			
	5		40						GP	Brown sandy gravel with trace silt (medium dense, moist)			
	10		38								NS	<1	
	15		60								NS	<1	
	20		24			NHDP-3:20' CA NHDP-3:20.5' CA	▼				NS	10.1 <1	Groundwater observed at approximately 20 feet during drilling

Note: See Figure A-1 for explanation of symbols.

Log of Boring NHDP-3

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-4
Sheet 1 of 1

Drilled Start 4/15/2014 End 4/15/2014	Total Depth (ft) 22.4	Logged By JML Checked By JER	Driller Cascade	Drilling Method Geoprobe	
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data		Drilling Equipment Geoprobe 6600 Truck Mount	
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured 4/15/2014	Depth to Water (ft) 18.0
Notes:					Elevation (ft)

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30						AC	Approximately 3 inches asphalt concrete pavement	NS	<1	
									GP	Brown sandy gravel with trace silt (medium dense, moist)			
									ML	Brown gravelly silt with trace sand (medium dense to very dense, moist)	NS	<1	
	5		45						SP	Gray gravely sand with trace silt (medium dense, moist)			
	10		50								NS	<1	
	15		55				▼		GP	Gray sandy gravel with trace silt (very dense, moist)	NS	<1	Groundwater observed at approximately 18 feet during drilling
	20		29			NHDP-4:20' CA			GM	Brown slightly silty gravel with trace sand (medium dense, wet)	NS NS	28 10.2	

Note: See Figure A-1 for explanation of symbols.

Log of Boring NHDP-4

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

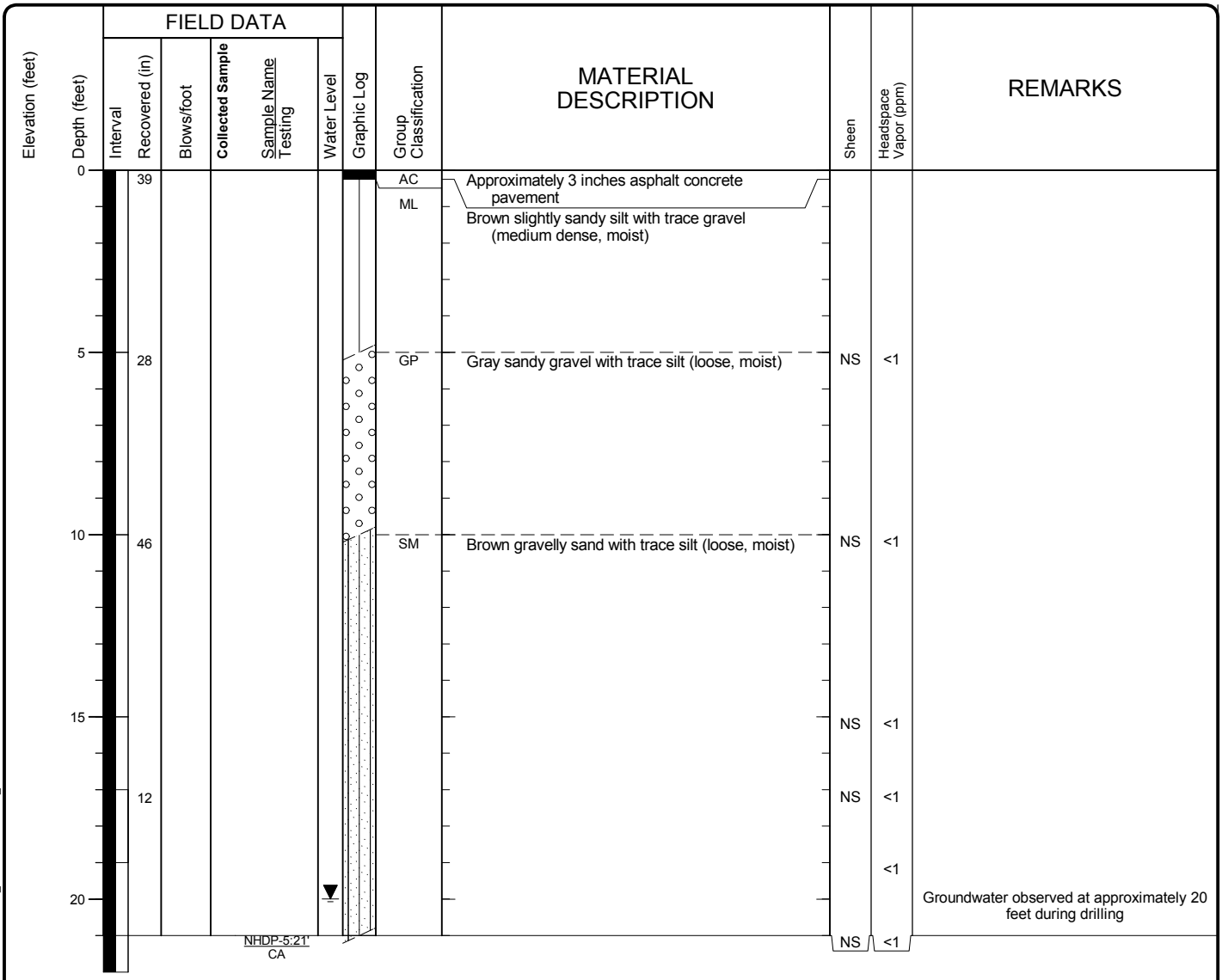
Figure A-5
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/15/2014	4/15/2014	21	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		4/15/2014	20.0	

Notes:



Note: See Figure A-1 for explanation of symbols.

Log of Boring NHDP-5

GeoEngineers

Project:	Tiger Oil - East Nob Hill
Project Location:	Yakima, Washington
Project Number:	0504-101-00

Figure A-6
Sheet 1 of 1

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
4/15/2014	4/15/2014	16	JML / JER	Cascade	Geoprobe

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 6600 Truck Mount

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
		4/15/2014	19.5	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		27						ML	Brown gravelly silt with trace sand (medium dense, moist)			
	5		18								NS	<1	
	10		30								NS	<1	
	15		12			NHDP-6:15'					NS	<1	
										Primary soil boring terminated at 16 feet due to refusal; secondary boring terminated at 19½ feet to collect groundwater sample Soil sampling was not conducted in secondary boring			

Groundwater observed at approximately 19½ feet during drilling

Note: See Figure A-1 for explanation of symbols.

Log of Boring NHDP-6

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-7
Sheet 1 of 1

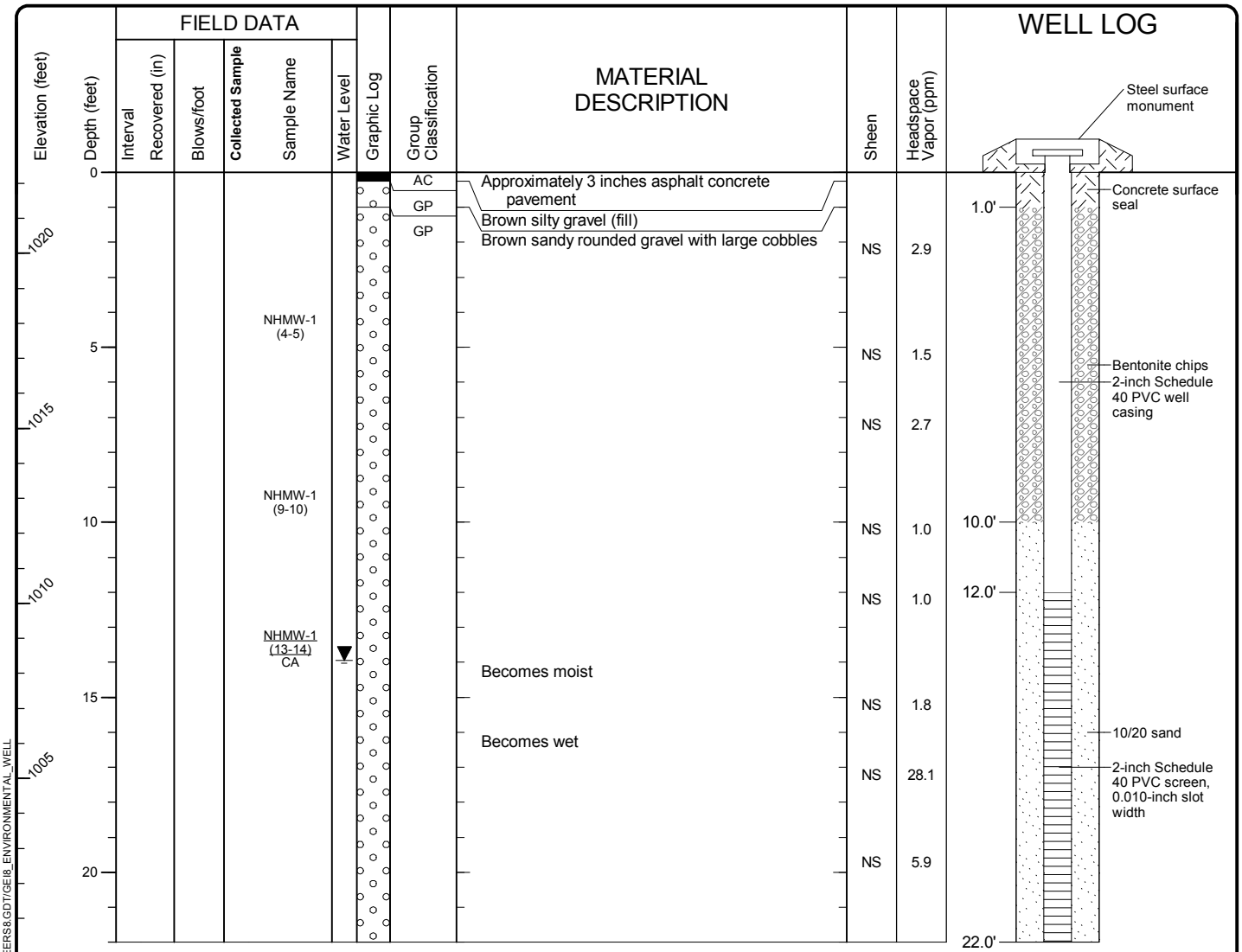
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/8/2014	8/8/2014	22	AJF	JRS	Cascade Drilling	Sonic

Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1022.32	Top of Casing Elevation (ft)	1021.92
Vertical Datum	NAVD88		
Easting (X)	1645362.3	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	456506.7		

DOE Well I.D.: BIE 522
A 2 (in) well was installed on 8/8/2014 to a depth of 22 (ft).

Groundwater		
Date Measured	Depth to Water (ft)	Elevation (ft)
8/8/2014	14.0	1008.0

Notes:



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well NHMW-1

GeoEngineers

Project:	Tiger Oil - East Nob Hill
Project Location:	Yakima, Washington
Project Number:	0504-101-00

Figure A-8
Sheet 1 of 1

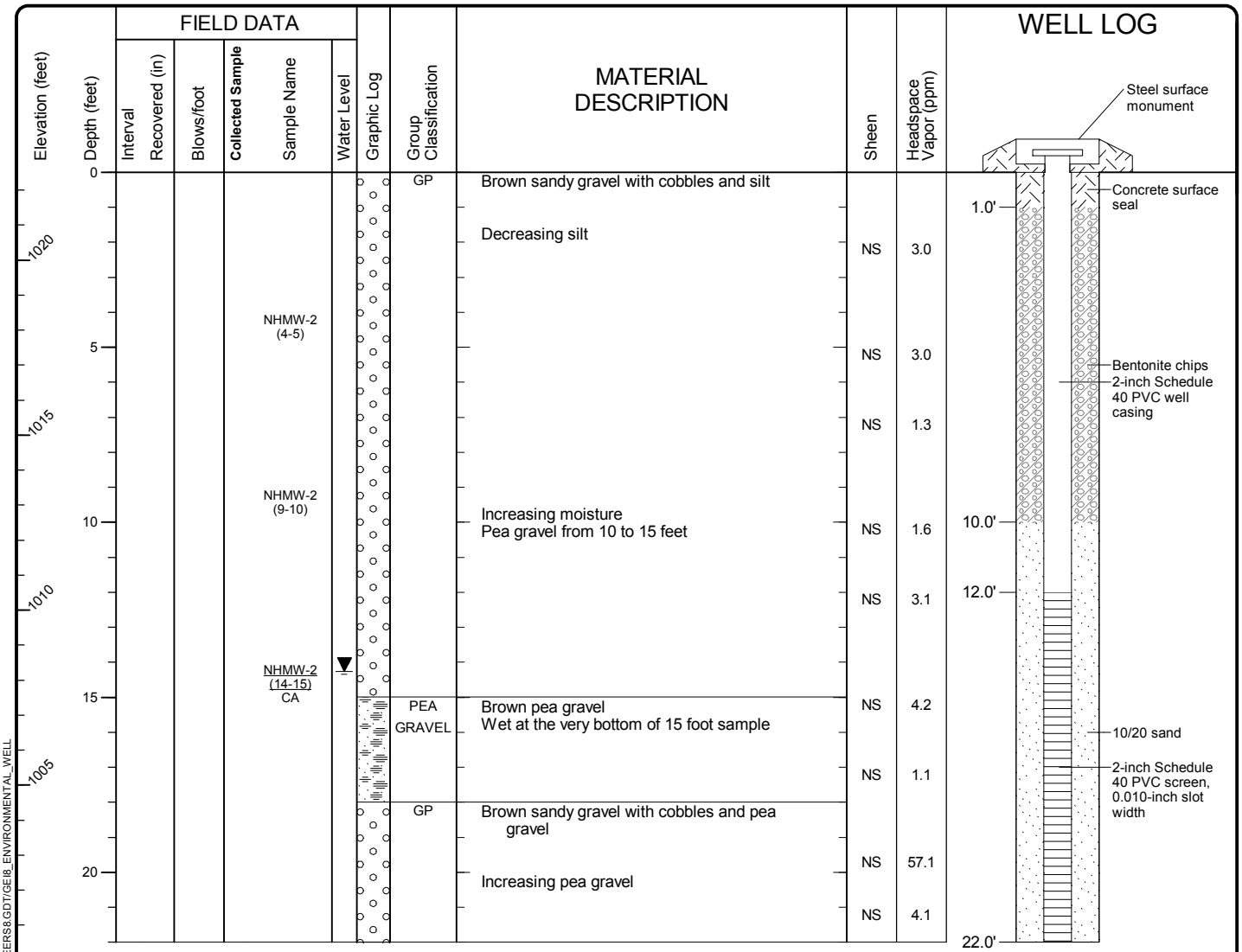
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/5/2014	8/5/2014	22	AJF	JRS	Cascade Drilling	Sonic

Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1022.51	Top of Casing Elevation (ft)	1022.14
Vertical Datum	NAVD88		
Easting (X)	1645453.8	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	456313.2		

DOE Well I.D.: BIE 515
A 2 (in) well was installed on 8/5/2014 to a depth of 22 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/5/2014	14.3	1007.9

Notes:



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well NHMW-2

GeoEngineers

Project:	Tiger Oil - East Nob Hill
Project Location:	Yakima, Washington
Project Number:	0504-101-00

Figure A-9
Sheet 1 of 1

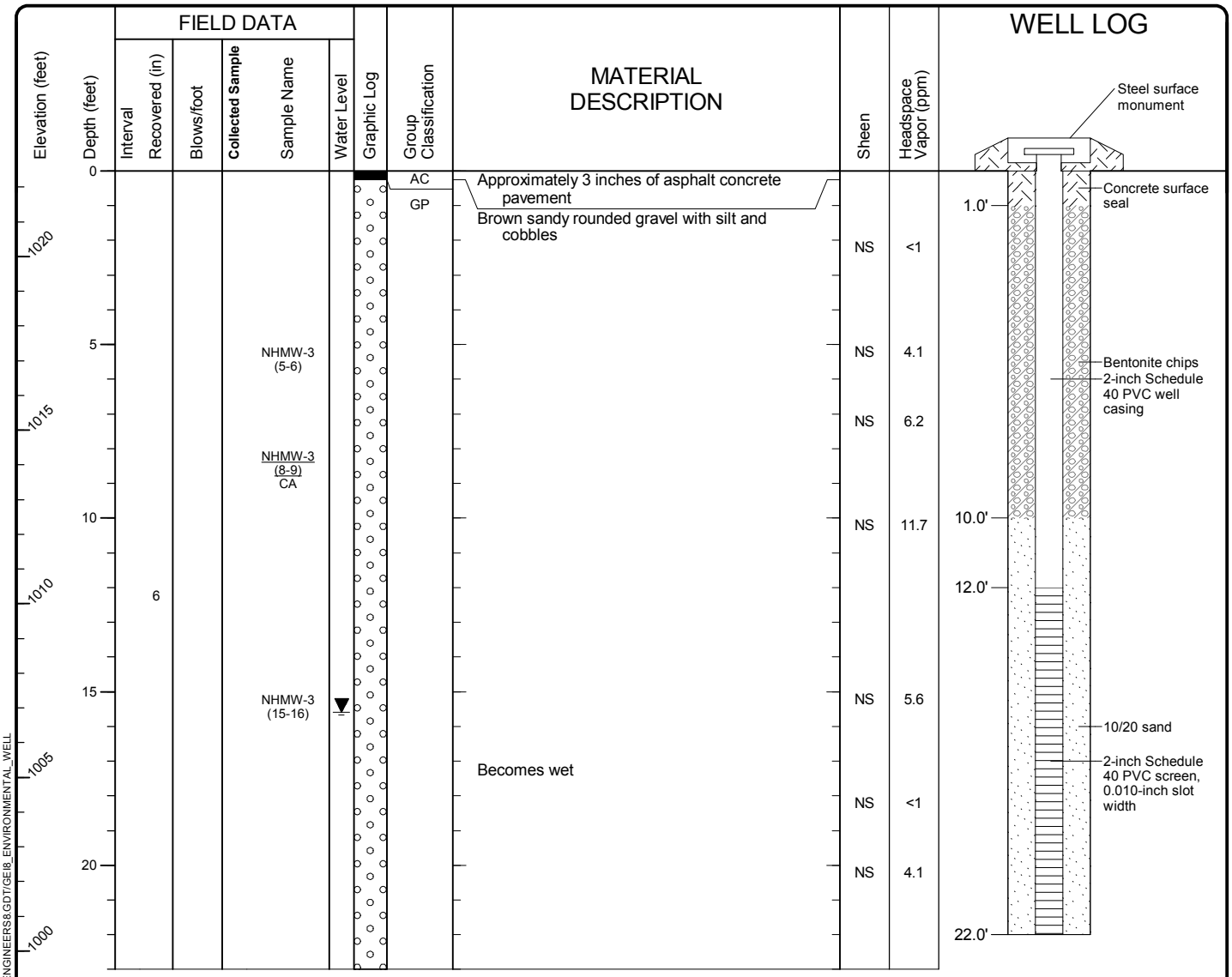
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/4/2014	8/4/2014	23	AJF	JRS	Cascade Drilling	Sonic

Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1022.47	Top of Casing Elevation (ft)	1022.18
Vertical Datum	NAVD88		
Easting (X)	1645683.2	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	456202.2		

DOE Well I.D.: BIE 513
A 2 (in) well was installed on 8/4/2014 to a depth of 22 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/4/2014	15.6	1006.6

Notes:



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well NHMW-3

GeoEngineers

Project:	Tiger Oil - East Nob Hill
Project Location:	Yakima, Washington
Project Number:	0504-101-00

Figure A-10
Sheet 1 of 1

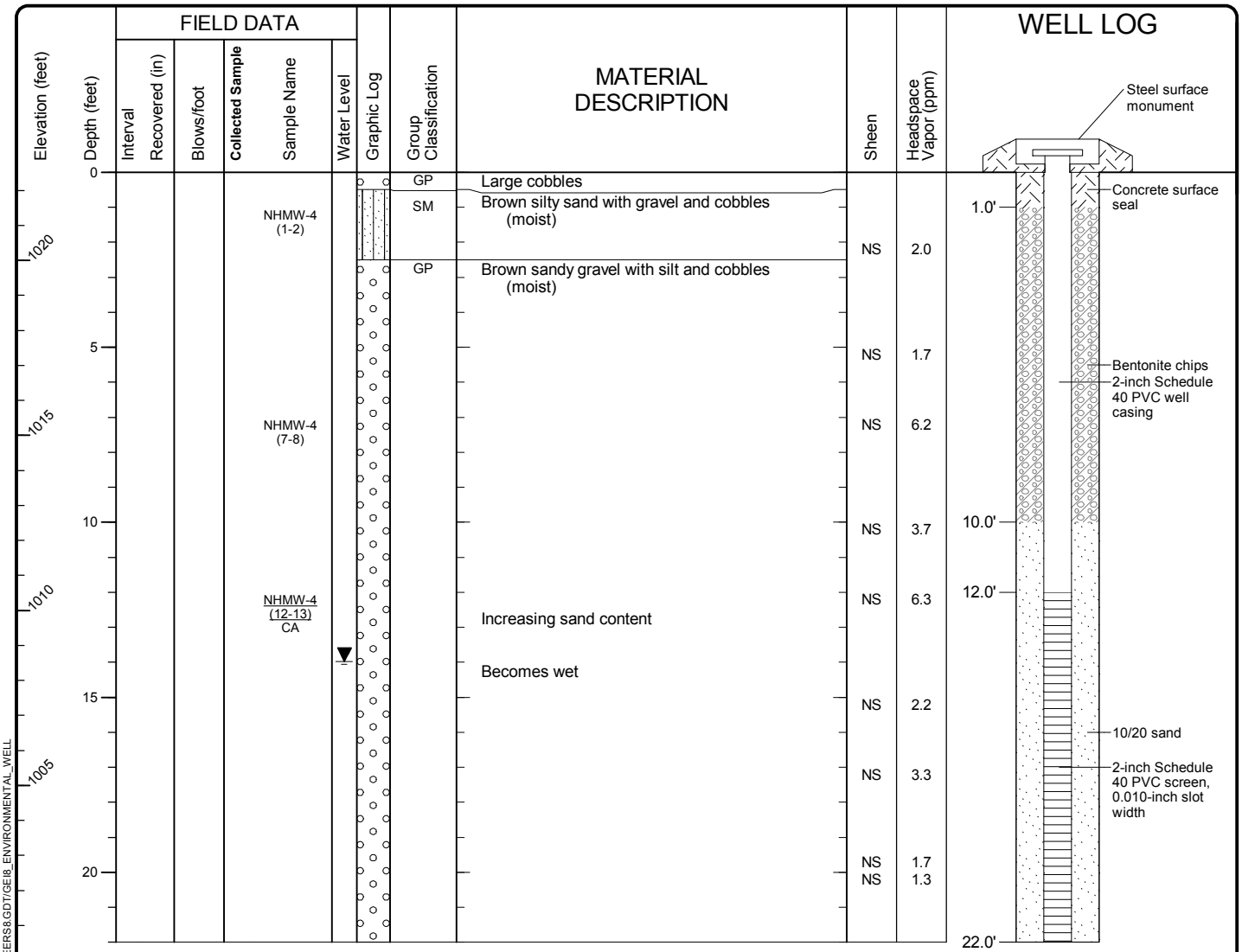
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/4/2014	8/4/2014	22	AJF	JRS	Cascade Drilling	Sonic

Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1022.52	Top of Casing Elevation (ft)	1021.31
Vertical Datum	NAVD88		
Easting (X)	1645482.7	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	456197.6		

DOE Well I.D.: BIE 514
A 2 (in) well was installed on 8/4/2014 to a depth of 22 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/4/2014	14.0	1007.3

Notes:



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well NHMW-4

GeoEngineers

Project:	Tiger Oil - East Nob Hill
Project Location:	Yakima, Washington
Project Number:	0504-101-00

Figure A-11
Sheet 1 of 1

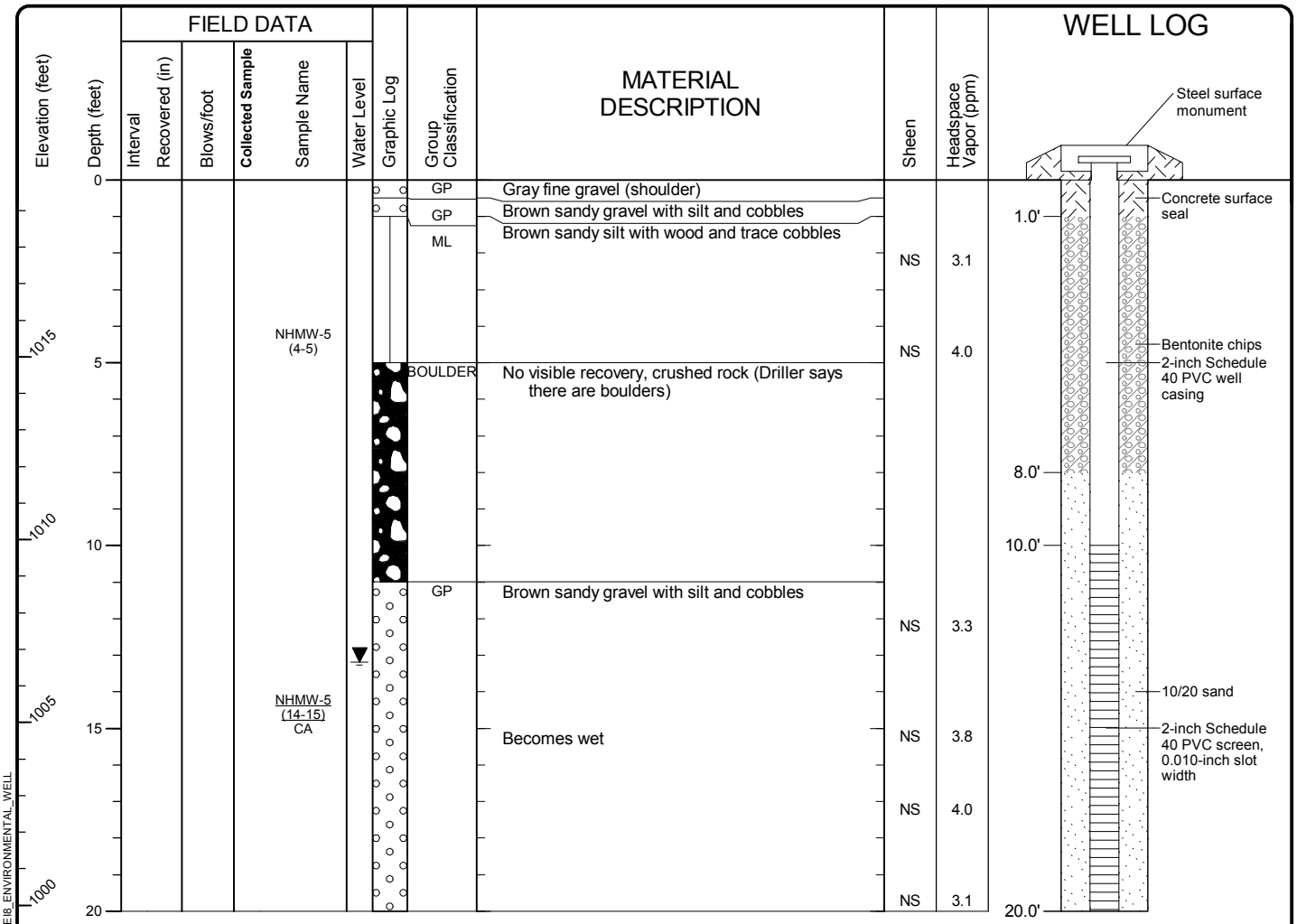
Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/5/2014	8/5/2014	20	AJF	JRS	Cascade Drilling	Sonic

Hammer Data		Drilling Equipment	200C Spider
Surface Elevation (ft)	1019.84	Top of Casing Elevation (ft)	1019.43
Vertical Datum	NAVD88		
Easting (X)	1645698.2	Horizontal Datum	NAD83/91 WA South Zone
Northing (Y)	455792.4		

DOE Well I.D.: BIE 516
A 2 (in) well was installed on 8/5/2014 to a depth of 20 (ft).

Groundwater		
Date Measured	Depth to Water (ft)	Elevation (ft)
8/5/2014	13.2	1006.2

Notes:



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well NHMW-5

GeoEngineers

Project:	Tiger Oil - East Nob Hill
Project Location:	Yakima, Washington
Project Number:	0504-101-00

Figure A-12
Sheet 1 of 1

Date Excavated: 6/12/2014 Logged By: JML

Equipment: TB 285 Total Depth (ft) 13.5

Elevation (feet)	Depth (feet)	SAMPLE: Testing Sample	SAMPLE: Sample Name Testing	Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
					AC		Approximately 3 inches asphalt concrete pavement			
	1				SP		Brown gravelly sand with occasional cobbles (moist)			
	2									
	3	☒	NHTP-1 (3)					NS	<1	
	4									
	5									
	6	☒	NHTP-1 (6)					NS	<1	
	7									
	8									
	9	☒	NHTP-1 (9) CA				Moist to wet	NS	<1	
	10									
	11									
	12	☒	NHTP-1 (12)		GP		Brown sandy gravel with occasional cobbles (moist to wet)	NS	<1	
	13									
		☒	NHTP-1 (13.5)				Test pit completed at 13½ feet No groundwater seepage observed No caving observed	NS	<1	

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit NHTP-1

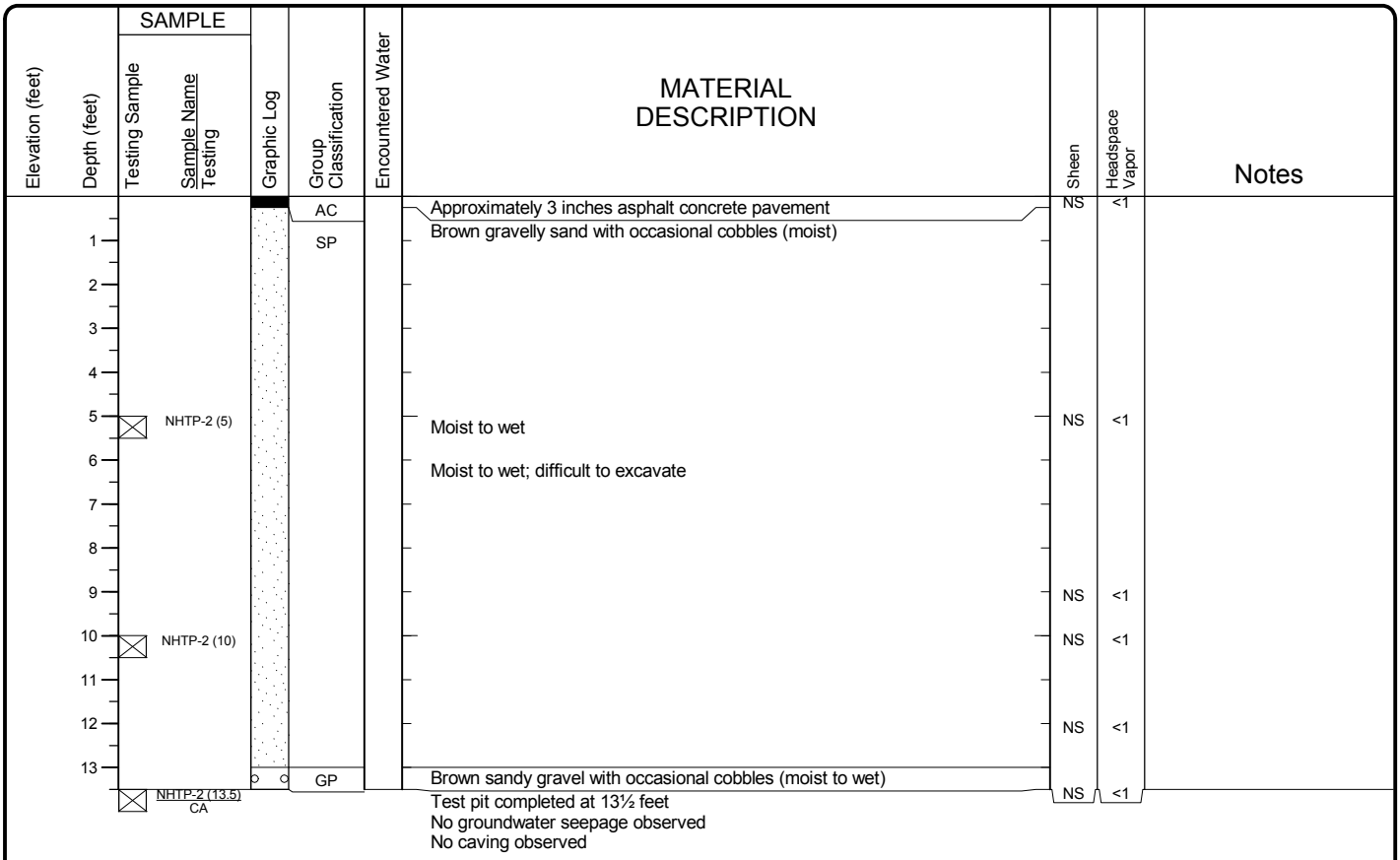
GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-13
Sheet 1 of 1

Date Excavated: 6/12/2014 Logged By: JML

Equipment: TB 285 Total Depth (ft) 13.5



Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit NHTP-2

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-14
Sheet 1 of 1

Date Excavated: 6/12/2014 Logged By: JML

Equipment: TB 285 Total Depth (ft) 13.5

Elevation (feet)	Depth (feet)	SAMPLE: Testing Sample	SAMPLE: Sample Name Testing	Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
					AC		Approximately 3 inches asphalt concrete pavement			
	1				SP		Brown gravelly sand with occasional cobbles (moist)			
	2									
	3							NS	<1	
	4									
	5	☒	NHTP-3 (5)					NS	<1	
	6						Moist to wet	NS	<1	
	7									
	8									
	9							NS	<1	
	10	☒	NHTP-3 (10) CA		GP		Brown cobbles with trace sand (moist to wet)	NS	<1	
	11									
	12							NS	<1	
	13									
		☒	NHTP-3 (13.5)					NS	<1	

Test pit completed at 13½ feet
No groundwater seepage observed
Caving observed on the east and west wall at 3 to 13 feet

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit NHTP-3

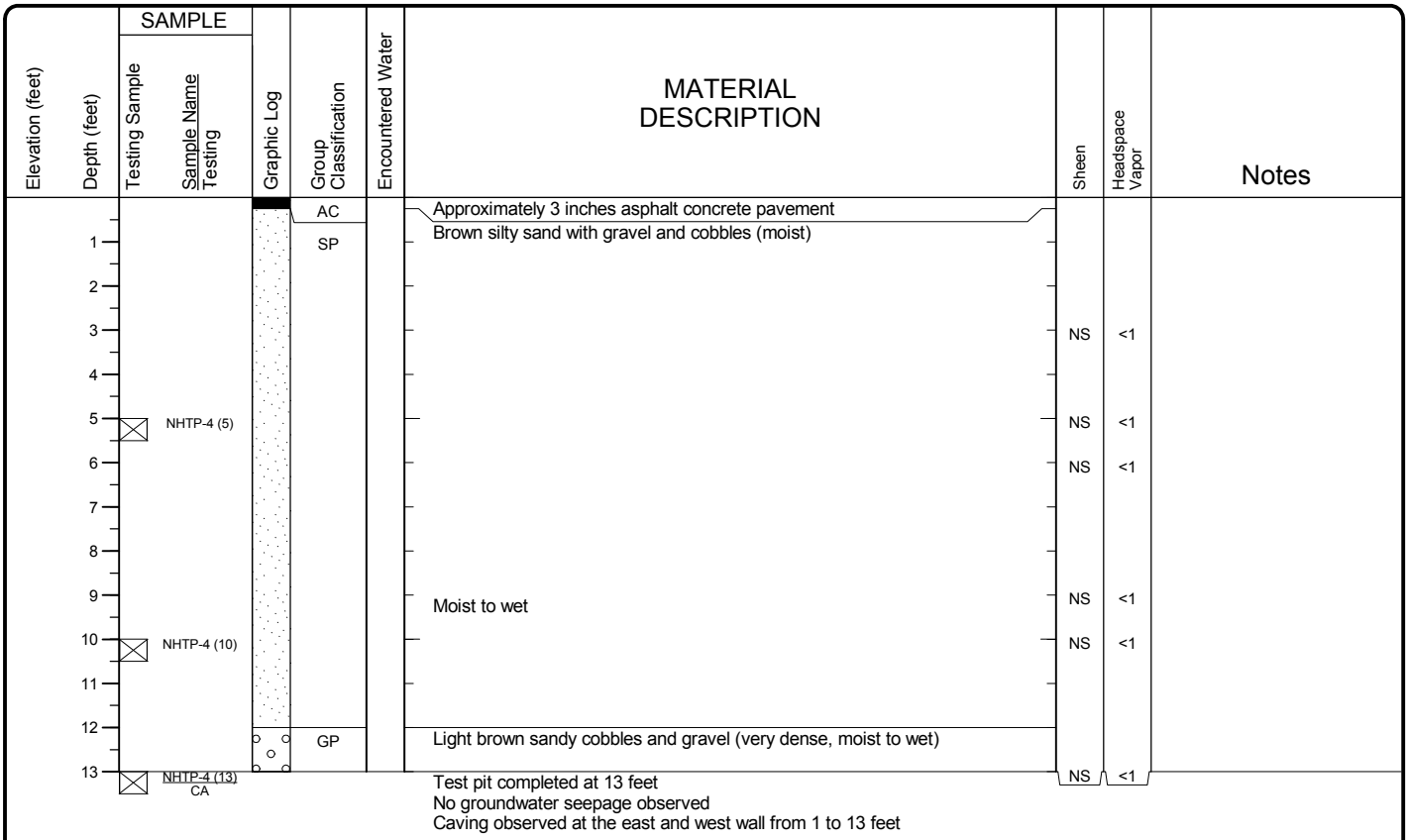
GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-15
Sheet 1 of 1

Date Excavated: 6/12/2014 Logged By: JML

Equipment: TB 285 Total Depth (ft) 13.0



Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit NHTP-4

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-16
Sheet 1 of 1

Date Excavated: 6/12/2014 Logged By: JML

Equipment: TB 285 Total Depth (ft) 14.0

Elevation (feet)	Depth (feet)	SAMPLE: Testing Sample	SAMPLE: Sample Name Testing	Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
	0				AC		Approximately 2 inches asphalt concrete pavement			
	1				GP		Brown sandy gravel and cobbles (moist to wet)			
	2									
	3							NS	<1	
	4									
	5	☒	NHTP-5 (5)					NS	<1	
	6									
	7							NS	<1	
	8									
	9							NS	<1	
	10	☒	NHTP-5 (10)					NS	<1	
	11									
	12									
	13									
	14	☒	NHTP-5 (14) CA				Test pit completed at 14 feet No groundwater seepage observed Caving observed at east and west wall from 3 to 14 feet	NS	<1	

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit NHTP-5

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-17
Sheet 1 of 1

Date Excavated: 6/12/2014 Logged By: JML

Equipment: TB 285 Total Depth (ft) 13.5

Elevation (feet)	Depth (feet)	SAMPLE: Testing Sample	SAMPLE: Sample Name Testing	Graphic Log	Group Classification	Encountered Water	MATERIAL DESCRIPTION	Sheen	Headspace Vapor	Notes
					AC		Approximately 2 inches asphalt concrete pavement			
	1				GP		Dark gray sandy gravel with cobbles and trace silt (moist) (dark gray material may be organic matter; odd odor)			
	2									
	3	☒	NHTP-6 (3) CA					NS	<1	
	4				SP		Brown silty sand with gravel and cobbles (moist)			
	5	☒	NHTP-6 (5)					NS	<1	
	6							NS	<1	
	7									
	8									
	9							NS	<1	
	10	☒	NHTP-6 (10)				Moist to wet	NS	<1	
	11									
	12									
	13									
		☒	NHTP-6 (13.5)				Test pit completed at 13½ feet No groundwater seepage observed Caving observed at east and west wall at 4 feet	NS	<1	

Notes: See Figure A-1 for explanation of symbols.
The depths on the test pit logs are based on an average of measurements across the test pit and should be considered accurate to 0.5 foot.

Log of Test Pit NHTP-6

GeoEngineers

Project: Tiger Oil - East Nob Hill
Project Location: Yakima, Washington
Project Number: 0504-101-00

Figure A-18
Sheet 1 of 1

APPENDIX B
Laboratory Reports

APPENDIX B
LABORATORY REPORTS

Samples

Chain-of-custody procedures were followed during the transport of the field samples to the accredited analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results and quality control records are included in this appendix.

The laboratory maintains an internal quality assurance/quality control (QA/QC) program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike (MS) recoveries, matrix spike duplicate (MSD) recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report.

CHEMICAL ANALYTICAL LABORATORY REPORT AND DATA VALIDATION

General

This report documents the results of a United States EPA-defined Stage 2A data validation (EPA Document 540-R-08-005; EPA, 2009) of analytical data from the analyses of soil and groundwater samples collected as part of the 2014 sampling events, and the associated laboratory and field QC samples. The samples were obtained from the Tiger Oil, East Nob Hill site located at 1606 East Nob Hill Boulevard in Yakima, Washington.

Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) conducted the data validation consistent with the EPA "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review" (EPA, 2008) and "Inorganic Superfund Data Review" (EPA, 2010) (National Functional Guidelines) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The QA/QC procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with Quality Assurance Project Plan (Appendix A of the "Sampling and Analysis Plan, Soil and Groundwater Assessment;" GeoEngineers, 2014), the data validation included review of the following QC elements:

- Data package completeness
- COC documentation
- Holding times and sample preservation

- Surrogate recoveries
- Method blanks
- MS/MSD
- Laboratory control samples (LCS)/Laboratory control sample duplicates (LCSD)
- Laboratory and field duplicates
- Miscellaneous

Validated Sample Delivery Groups

This data validation included review of the sample delivery groups (SDGs) listed below in Table B-1.

TABLE B-1: SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
SXD0111	041514:NHDP-1:2.5, 041514:NHDP-2:21.5, 041514:NHDP-3:20, 041514:NHDP-3:20.5, 041514:NHDP-4:20, 041514:NHDP-5:21, 041514:NHDP-2:GW, 041514:NHDP-3:GW, 041514:NHDP-4:GW, 041514:NHDP-5:GW, 041514:NHDP-6:GW
SXF0094	NHTP-1(9), NHTP-2(13.5), NHTP-3(10), NHTP-4(13), NHTP-5(14), NHTP-6(3)
SXH0034	NHMW-2 (14-15'), NHMW-3 (8-9'), NHMW-4 (12-13'), NHMW-5 (14-15')
SXH0071	NHMW-1 (13-14'), Duplicate 2
SXI0094	MW-1-091514, MW-2-091514, MW-3-091514, MW-4-091514, MW-5-091514, MW-Dup-091514

Chemical Analysis Performed

TestAmerica, located in Spokane, Washington, performed laboratory analysis on the soil and groundwater samples using one or more of the following methods:

- HCID (NWTPH-HCID) using Method NWTPH-HCID;
- DRPH and ORPH (NWTPH-Dx) using Method NWTPH-Dx;
- Petroleum hydrocarbons with silica gel cleanup (NWTPH-Dx/SG) using Method NWTPH-Dx/SG;
- GRPH (NWTPH-Gx) using Method NWTPH-Gx;
- BTEX, MTBE and EDC using Method SW8260C;
- VOCs using Method SW8260C;
- PAHs using Method SW8270D-SIM;
- Total Metals using Method EPA6010C;
- Anions using Method EPA300.0; and
- TOC using Method SM5310C.

Data Validation Summary

The results for each of the QC elements are summarized below.

Data Package Completeness

TestAmerica provided all required deliverables for the data validation according to the National Functional Guidelines. The laboratory appears to have followed adequate corrective action processes; however, the laboratory analytical report does not contain a case narrative.

Chain-of-Custody Documentation

COC forms were provided with the laboratory analytical report. The COCs were accurate and complete when submitted to the laboratory.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for all analyses. The sample coolers arrived at the laboratory within the appropriate temperatures of between 2 and 6 degrees Celsius, with the exception noted below.

SDG SXD0111: The sample cooler temperature recorded at the laboratory was 12.7 degrees Celsius. The samples were put on ice when they were collected (April 15, 2014) and ice was added every day until they were received by the laboratory (April 17, 2014). The out-of-compliance temperature was very likely isolated to the day the samples were received at the laboratory. For this reason, this temperature should not affect the sample analytical results.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries are calculated following analysis. All surrogate percent recoveries for field samples were within the laboratory control limits.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For all sample batches, method blanks for all applicable methods were analyzed at the required frequency. None of the analytes of interest were detected greater than the reporting limits in any of the method blanks.

Matrix Spikes/Matrix Spike Duplicates

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a MS analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery is calculated. MSD analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the result values

from the MS and MSD, the relative percent difference (RPD) is calculated. The percent recovery control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

For inorganic methods, the matrix spike is followed by a post-digestion spike sample if any element percent recoveries were outside the control limits in the matrix spike. The percent recovery control limits for matrix spikes are 75 to 125 percent.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A LCS is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, the LCS/LCSD control limits for accuracy and precision are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to all samples in the associated batch, instead of just the parent sample. The percent recovery control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for all analyses and the percent recovery and RPD values were within the proper control limits.

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. For organic analyses, the RPD control limits are specified in the laboratory documents. For inorganic analyses, the RPD control limit 20 percent. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exceptions:

SDG SXD0111: (NWTPH-HCID) Two laboratory duplicate analyses were performed with RPD values that exceeded the control limit. The samples were not associated with the samples in this SDG. For this reason, no action was required for these outliers.

SDG SXF0094: (NWTPH-HCID) Two laboratory duplicate analyses were performed with RPD values that exceeded the control limit. The samples were not associated with the samples in this SDG. For this reason, no action was required for these outliers.

Field Duplicates

In order to assess precision, field duplicate samples are collected and analyzed along with the reviewed sample batches. The duplicate samples are analyzed for the same parameters as the associated parent

samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit is 20 percent.

SDG SXH0071: One field duplicate sample pair, NHMW-1 (13-14') and Duplicate 2, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair.

SDG SXI0094: One field duplicate sample pair, MW-2-091514 and MW-Dup-091514, was submitted with this SDG. The precision criteria for all target analytes were met for this sample pair.

Miscellaneous

SDG SXH0034: (NWTPH-Dx) For Samples NHMW-2 (14-15') and NHMW-3 (8-9') the laboratory flagged the DRPH results with "Q6," indicating that the diesel-range hydrocarbons results were being influenced by the relative concentration of ORPH in the sample. For this reason, the positive results for DRPH were qualified as estimated (J) in these samples, in order to signify a potential high bias.

Overall Assessment

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD percent recovery values, with the exceptions noted above. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values, with the exceptions noted above.

All data are acceptable for the intended use, with the following qualifications listed below in Table B-2.

TABLE B-2: SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Qualifier
NHMW-2 (14-15')	Diesel-range hydrocarbons	J
NHMW-3 (8-9')	Diesel-range hydrocarbons	J

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SXI0094
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - E Nob Hill

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: JR Sugalski

Authorized for release by:
10/8/2014 10:48:51 AM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXI0094-01	MW-1-091514	Water	09/15/14 12:04	09/16/14 08:30
SXI0094-02	MW-2-091514	Water	09/15/14 14:04	09/16/14 08:30
SXI0094-03	MW-3-091514	Water	09/15/14 13:25	09/16/14 08:30
SXI0094-04	MW-4-091514	Water	09/15/14 11:18	09/16/14 08:30
SXI0094-05	MW-5-091514	Water	09/15/14 12:47	09/16/14 08:30
SXI0094-06	MW-Dup-091514	Water	09/15/14 08:00	09/16/14 08:30
SXI0136-01	MW-1-091514	Water	09/15/14 12:04	09/19/14 09:50
SXI0136-02	MW-2-091514	Water	09/15/14 14:04	09/19/14 09:50
SXI0136-03	MW-3-091514	Water	09/15/14 13:25	09/19/14 09:50
SXI0136-04	MW-4-091514	Water	09/15/14 11:18	09/19/14 09:50
SXI0136-05	MW-5-091514	Water	09/15/14 12:47	09/19/14 09:50
SXI0136-06	MW-Dup-091514	Water	09/15/14 08:00	09/19/14 09:50

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-1-091514

Lab Sample ID: SXI0094-01

Date Collected: 09/15/14 12:04

Matrix: Water

Date Received: 09/16/14 08:30

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	2.49		0.200		mg/L		09/16/14 08:56	09/16/14 09:31	1.00
Sulfate	9.48		0.500		mg/L		09/16/14 08:56	09/16/14 09:31	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	70.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: MW-2-091514

Lab Sample ID: SXI0094-02

Date Collected: 09/15/14 14:04

Matrix: Water

Date Received: 09/16/14 08:30

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	1.82		0.200		mg/L		09/16/14 08:56	09/16/14 09:45	1.00
Sulfate	14.4		0.500		mg/L		09/16/14 08:56	09/16/14 09:45	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	77.5		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: MW-3-091514

Lab Sample ID: SXI0094-03

Date Collected: 09/15/14 13:25

Matrix: Water

Date Received: 09/16/14 08:30

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	2.92		0.200		mg/L		09/16/14 08:56	09/16/14 09:59	1.00
Sulfate	13.1		0.500		mg/L		09/16/14 08:56	09/16/14 09:59	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	70.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: MW-4-091514

Lab Sample ID: SXI0094-04

Date Collected: 09/15/14 11:18

Matrix: Water

Date Received: 09/16/14 08:30

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	2.51		0.200		mg/L		09/16/14 08:56	09/16/14 10:14	1.00
Sulfate	10.5		0.500		mg/L		09/16/14 08:56	09/16/14 10:14	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	70.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-5-091514

Lab Sample ID: SXI0094-05

Date Collected: 09/15/14 12:47

Matrix: Water

Date Received: 09/16/14 08:30

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	2.78		0.200		mg/L		09/16/14 08:56	09/16/14 10:28	1.00
Sulfate	12.1		0.500		mg/L		09/16/14 08:56	09/16/14 10:28	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	70.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: MW-Dup-091514

Lab Sample ID: SXI0094-06

Date Collected: 09/15/14 08:00

Matrix: Water

Date Received: 09/16/14 08:30

Method: EPA 300.0 - Anions by EPA Method 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	1.85		0.200		mg/L		09/16/14 08:56	09/16/14 10:42	1.00
Sulfate	14.3		0.500		mg/L		09/16/14 08:56	09/16/14 10:42	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	75.0		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Client Sample ID: MW-1-091514

Lab Sample ID: SXI0136-01

Date Collected: 09/15/14 12:04

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Chloroform	1.34		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-1-091514
Date Collected: 09/15/14 12:04
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 18:51	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 18:51*	*1.00*
1,2-dichloroethane-d4	*95.7*		*70 - 140*	*09/24/14 13:48*	*09/24/14 18:51*	*1.00*
Toluene-d8	*103*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 18:51*	*1.00*

Client Sample ID: MW-1-091514
Date Collected: 09/15/14 12:04
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-01
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 18:51*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 18:51	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 18:51*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
2-Methylnaphthalene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
1-Methylnaphthalene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Acenaphthylene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Acenaphthene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Fluorene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Phenanthrene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Anthracene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Fluoranthene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Pyrene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Benzo (a) anthracene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Chrysene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Benzo (b) fluoranthene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Benzo (k) fluoranthene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Benzo (a) pyrene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Dibenzo (a,h) anthracene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00
Benzo (ghi) perylene	ND		0.0938		ug/L		09/22/14 13:41	09/24/14 15:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*86.1*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 15:55*	*1.00*
2-FBP	*83.4*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 15:55*	*1.00*
p-Terphenyl-d14	*88.6*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 15:55*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.229		mg/L		09/22/14 09:13	09/23/14 12:37	1.00
Heavy Oil Range Hydrocarbons	ND		0.382		mg/L		09/22/14 09:13	09/23/14 12:37	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*50 - 150*	*09/22/14 09:13*	*09/23/14 12:37*	*1.00*
n-Triacontane-d62	*125*		*50 - 150*	*09/22/14 09:13*	*09/23/14 12:37*	*1.00*

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.30**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-2-091514
Date Collected: 09/15/14 14:04
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Chloroform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-2-091514
Date Collected: 09/15/14 14:04
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-02
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 19:14*	*1.00*
1,2-dichloroethane-d4	*96.0*		*70 - 140*	*09/24/14 13:48*	*09/24/14 19:14*	*1.00*
Toluene-d8	*101*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 19:14*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 19:14*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 19:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 19:14*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
2-Methylnaphthalene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
1-Methylnaphthalene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Acenaphthylene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Acenaphthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Fluorene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Phenanthrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Anthracene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Fluoranthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Pyrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Benzo (a) anthracene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Chrysene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Benzo (b) fluoranthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Benzo (k) fluoranthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00

Client Sample ID: MW-2-091514

Lab Sample ID: SXI0136-02

Date Collected: 09/15/14 14:04

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (a) pyrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Dibenzo (a,h) anthracene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00
Benzo (ghi) perylene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 16:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*74.5*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 16:19*	*1.00*
2-FBP	*74.5*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 16:19*	*1.00*
p-Terphenyl-d14	*85.9*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 16:19*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.229		mg/L		09/22/14 09:13	10/03/14 13:44	1.00
Heavy Oil Range Hydrocarbons	ND		0.382		mg/L		09/22/14 09:13	10/03/14 13:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96.2*		*50 - 150*	*09/22/14 09:13*	*10/03/14 13:44*	*1.00*
n-Triacontane-d62	*103*		*50 - 150*	*09/22/14 09:13*	*10/03/14 13:44*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**0.388**		0.229		mg/L		09/22/14 09:13	09/22/14 16:50	1.00
Heavy Oil Range Hydrocarbons	ND		0.382		mg/L		09/22/14 09:13	09/22/14 16:50	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*09/22/14 09:13*	*09/22/14 16:50*	*1.00*
n-Triacontane-d62	*117*		*50 - 150*	*09/22/14 09:13*	*09/22/14 16:50*	*1.00*

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.47**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: MW-3-091514

Lab Sample ID: SXI0136-03

Date Collected: 09/15/14 13:25

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-3-091514
Date Collected: 09/15/14 13:25
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-03
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Chloroform	**1.13**		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00

Client Sample ID: MW-3-091514
Date Collected: 09/15/14 13:25
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-03
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 19:36*	*1.00*
1,2-dichloroethane-d4	*97.9*		*70 - 140*	*09/24/14 13:48*	*09/24/14 19:36*	*1.00*
Toluene-d8	*101*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 19:36*	*1.00*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 19:36*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 19:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 19:36*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
2-Methylnaphthalene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
1-Methylnaphthalene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Acenaphthylene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Acenaphthene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Fluorene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Phenanthrene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Anthracene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Fluoranthene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Pyrene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Benzo (a) anthracene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Chrysene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Benzo (b) fluoranthene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Benzo (k) fluoranthene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Benzo (a) pyrene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Dibenzo (a,h) anthracene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00
Benzo (ghi) perylene	ND		0.0962		ug/L		09/22/14 13:41	09/24/14 16:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85.6*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 16:44*	*1.00*
2-FBP	*82.3*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 16:44*	*1.00*
p-Terphenyl-d14	*82.4*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 16:44*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.229		mg/L		09/22/14 09:13	09/23/14 12:56	1.00
Heavy Oil Range Hydrocarbons	ND		0.382		mg/L		09/22/14 09:13	09/23/14 12:56	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-3-091514

Lab Sample ID: SXI0136-03

Date Collected: 09/15/14 13:25

Matrix: Water

Date Received: 09/19/14 09:50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*112*		*50 - 150*	*09/22/14 09:13*	*09/23/14 12:56*	*1.00*
n-Triacontane-d62	*125*		*50 - 150*	*09/22/14 09:13*	*09/23/14 12:56*	*1.00*

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.30**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: MW-4-091514

Lab Sample ID: SXI0136-04

Date Collected: 09/15/14 11:18

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Chloroform	**1.32**		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-4-091514
Date Collected: 09/15/14 11:18
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-04
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 19:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*102*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 19:59*	*1.00*
1,2-dichloroethane-d4	*98.8*		*70 - 140*	*09/24/14 13:48*	*09/24/14 19:59*	*1.00*
Toluene-d8	*102*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 19:59*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 19:59*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 19:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 19:59*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
2-Methylnaphthalene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00

Client Sample ID: MW-4-091514
Date Collected: 09/15/14 11:18
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-04
Matrix: Water

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Acenaphthylene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Acenaphthene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Fluorene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Phenanthrene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Anthracene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Fluoranthene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Pyrene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Benzo (a) anthracene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Chrysene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Benzo (b) fluoranthene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Benzo (k) fluoranthene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Benzo (a) pyrene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Dibenzo (a,h) anthracene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00
Benzo (ghi) perylene	ND		0.0956		ug/L		09/22/14 13:41	09/24/14 17:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*78.0*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 17:09*	*1.00*
2-FBP	*75.6*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 17:09*	*1.00*
p-Terphenyl-d14	*88.2*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 17:09*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.229		mg/L		09/22/14 09:13	09/22/14 17:14	1.00
Heavy Oil Range Hydrocarbons	ND		0.381		mg/L		09/22/14 09:13	09/22/14 17:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95.3*		*50 - 150*	*09/22/14 09:13*	*09/22/14 17:14*	*1.00*
n-Triacontane-d62	*113*		*50 - 150*	*09/22/14 09:13*	*09/22/14 17:14*	*1.00*

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.31**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: MW-5-091514
Date Collected: 09/15/14 12:47
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-05
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:21	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-5-091514
Date Collected: 09/15/14 12:47
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-05
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Chloroform	**1.16**		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-5-091514
Date Collected: 09/15/14 12:47
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-05
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 20:21*	*1.00*
1,2-dichloroethane-d4	*98.8*		*70 - 140*	*09/24/14 13:48*	*09/24/14 20:21*	*1.00*
Toluene-d8	*101*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 20:21*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 20:21*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 20:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 20:21*	*1.00*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
2-Methylnaphthalene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
1-Methylnaphthalene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Acenaphthylene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Acenaphthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Fluorene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Phenanthrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Anthracene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Fluoranthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Pyrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Benzo (a) anthracene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Chrysene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Benzo (b) fluoranthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Benzo (k) fluoranthene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Benzo (a) pyrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Dibenzo (a,h) anthracene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00
Benzo (ghi) perylene	ND		0.0952		ug/L		09/22/14 13:41	09/24/14 17:33	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*76.1*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 17:33*	*1.00*
2-FBP	*71.5*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 17:33*	*1.00*
p-Terphenyl-d14	*88.1*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 17:33*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-5-091514

Lab Sample ID: SXI0136-05

Date Collected: 09/15/14 12:47

Matrix: Water

Date Received: 09/19/14 09:50

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.230		mg/L		09/22/14 09:13	09/23/14 13:19	1.00
Heavy Oil Range Hydrocarbons	ND		0.383		mg/L		09/22/14 09:13	09/23/14 13:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*106*		*50 - 150*	*09/22/14 09:13*	*09/23/14 13:19*	*1.00*
n-Triacontane-d62	*125*		*50 - 150*	*09/22/14 09:13*	*09/23/14 13:19*	*1.00*

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.32**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client Sample ID: MW-Dup-091514

Lab Sample ID: SXI0136-06

Date Collected: 09/15/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Chloroform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00

Client Sample ID: MW-Dup-091514
Date Collected: 09/15/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-06
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 20:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 20:44*	*1.00*
1,2-dichloroethane-d4	*100*		*70 - 140*	*09/24/14 13:48*	*09/24/14 20:44*	*1.00*
Toluene-d8	*101*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 20:44*	*1.00*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 20:44*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 20:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*101*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 20:44*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-Dup-091514
Date Collected: 09/15/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-06
Matrix: Water

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
2-Methylnaphthalene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
1-Methylnaphthalene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Acenaphthylene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Acenaphthene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Fluorene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Phenanthrene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Anthracene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Fluoranthene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Pyrene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Benzo (a) anthracene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Chrysene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Benzo (b) fluoranthene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Benzo (k) fluoranthene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Benzo (a) pyrene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Dibenzo (a,h) anthracene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00
Benzo (ghi) perylene	ND		0.0949		ug/L		09/22/14 13:41	09/24/14 17:58	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79.1*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 17:58*	*1.00*
2-FBP	*79.3*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 17:58*	*1.00*
p-Terphenyl-d14	*84.6*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 17:58*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.230		mg/L		09/22/14 09:13	10/03/14 14:53	1.00
Heavy Oil Range Hydrocarbons	ND		0.384		mg/L		09/22/14 09:13	10/03/14 14:53	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94.6*		*50 - 150*	*09/22/14 09:13*	*10/03/14 14:53*	*1.00*
n-Triacontane-d62	*98.1*		*50 - 150*	*09/22/14 09:13*	*10/03/14 14:53*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**0.433**		0.230		mg/L		09/22/14 09:13	09/22/14 17:38	1.00
Heavy Oil Range Hydrocarbons	ND		0.384		mg/L		09/22/14 09:13	09/22/14 17:38	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*121*		*50 - 150*	*09/22/14 09:13*	*09/22/14 17:38*	*1.00*
n-Triacontane-d62	*135*		*50 - 150*	*09/22/14 09:13*	*09/22/14 17:38*	*1.00*

Method: SM 5310C - TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.10**		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14I0154-BLK1
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Chloromethane	ND		3.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Vinyl chloride	ND		0.200		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Bromomethane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Chloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Trichlorofluoromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Dichlorofluoromethane	ND		0.200		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Carbon disulfide	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Methylene chloride	ND		10.0		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Acetone	ND	L	25.0		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Methyl tert-butyl ether	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1,2-Trichlorotrifluoroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1-Dichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
2,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Bromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Chloroform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Carbon tetrachloride	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
2-Butanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Hexane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Benzene	ND		0.200		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
tert-Butanol	ND		5.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2-Dichloroethane (EDC)	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Trichloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Dibromomethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Bromodichloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Toluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Tetrachloroethene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Dibromochloromethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,3-Dichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2-Dibromoethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
2-Hexanone	ND		10.0		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Ethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Chlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
m,p-Xylene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
o-Xylene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Styrene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Bromoform	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0154-BLK1
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
n-Propylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Bromobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
2-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
4-Chlorotoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
tert-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
sec-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
p-Isopropyltoluene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
n-Butylbenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Hexachlorobutadiene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
Naphthalene	ND		2.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		09/24/14 13:48	09/24/14 17:43	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*71.2 - 143*	*09/24/14 13:48*	*09/24/14 17:43*	*1.00*
1,2-dichloroethane-d4	*94.5*		*70 - 140*	*09/24/14 13:48*	*09/24/14 17:43*	*1.00*
Toluene-d8	*102*		*74.1 - 135*	*09/24/14 13:48*	*09/24/14 17:43*	*1.00*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 17:43*	*1.00*

Lab Sample ID: 14I0154-BS1
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	9.23		ug/L		92.3	60 - 140
Chloromethane	10.0	9.01		ug/L		90.1	60 - 140
Vinyl chloride	10.0	9.46		ug/L		94.6	60 - 140
Bromomethane	10.0	10.0		ug/L		100	60 - 140
Chloroethane	10.0	9.20		ug/L		92.0	60 - 140
Trichlorofluoromethane	10.0	9.53		ug/L		95.3	60 - 140
1,1-Dichloroethene	10.0	8.79		ug/L		87.9	78.1 - 155
Dichlorofluoromethane	10.0	9.08		ug/L		90.8	60 - 140
Carbon disulfide	10.0	8.47		ug/L		84.7	60 - 140
Methylene chloride	10.0	10.6		ug/L		106	60 - 140
Acetone	50.0	84.4	L	ug/L		169	60 - 140
trans-1,2-Dichloroethene	10.0	8.64		ug/L		86.4	60 - 140
Methyl tert-butyl ether	10.0	8.73		ug/L		87.3	80.1 - 128
1,1,2-Trichlorotrifluoroethane	10.0	9.76		ug/L		97.6	60 - 140
1,1-Dichloroethane	10.0	9.20		ug/L		92.0	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0154-BS1
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	10.0	9.22		ug/L		92.2	60 - 140
2,2-Dichloropropane	10.0	9.24		ug/L		92.4	60 - 140
Bromochloromethane	10.0	9.23		ug/L		92.3	60 - 140
Chloroform	10.0	9.28		ug/L		92.8	60 - 140
Carbon tetrachloride	10.0	9.58		ug/L		95.8	60 - 140
1,1,1-Trichloroethane	10.0	9.32		ug/L		93.2	60 - 140
2-Butanone	50.0	59.6		ug/L		119	60 - 140
Hexane	10.0	8.56		ug/L		85.6	60 - 140
1,1-Dichloropropene	10.0	9.24		ug/L		92.4	60 - 140
Benzene	10.0	8.53		ug/L		85.3	80 - 122
tert-Butanol	100	62.4		ug/L		62.4	60 - 140
1,2-Dichloroethane (EDC)	10.0	8.91		ug/L		89.1	63.9 - 144
Trichloroethene	10.0	9.30		ug/L		93.0	74.8 - 123
Dibromomethane	10.0	8.98		ug/L		89.8	60 - 140
1,2-Dichloropropane	10.0	9.11		ug/L		91.1	60 - 140
Bromodichloromethane	10.0	8.64		ug/L		86.4	60 - 140
cis-1,3-Dichloropropene	10.0	8.51		ug/L		85.1	60 - 140
Toluene	10.0	8.79		ug/L		87.9	80 - 123
4-Methyl-2-pentanone	50.0	41.4		ug/L		82.8	60 - 140
trans-1,3-Dichloropropene	10.0	8.51		ug/L		85.1	60 - 140
Tetrachloroethene	10.0	9.78		ug/L		97.8	60 - 140
1,1,2-Trichloroethane	10.0	9.10		ug/L		91.0	60 - 140
Dibromochloromethane	10.0	9.64		ug/L		96.4	60 - 140
1,3-Dichloropropane	10.0	8.82		ug/L		88.2	60 - 140
1,2-Dibromoethane	10.0	9.10		ug/L		91.0	70 - 130
2-Hexanone	50.0	51.8		ug/L		104	60 - 140
Ethylbenzene	10.0	8.77		ug/L		87.7	80 - 120
Chlorobenzene	10.0	8.77		ug/L		87.7	79.2 - 125
1,1,1,2-Tetrachloroethane	10.0	9.10		ug/L		91.0	60 - 140
m,p-Xylene	10.0	8.91		ug/L		89.1	80 - 120
o-Xylene	10.0	8.78		ug/L		87.8	80 - 120
Styrene	10.0	8.84		ug/L		88.4	60 - 140
Bromoform	10.0	9.15		ug/L		91.5	60 - 140
Isopropylbenzene	10.0	8.70		ug/L		87.0	60 - 140
n-Propylbenzene	10.0	8.57		ug/L		85.7	60 - 140
1,1,2,2-Tetrachloroethane	10.0	8.61		ug/L		86.1	60 - 140
Bromobenzene	10.0	9.54		ug/L		95.4	60 - 140
1,3,5-Trimethylbenzene	10.0	8.61		ug/L		86.1	60 - 140
2-Chlorotoluene	10.0	8.90		ug/L		89.0	60 - 140
1,2,3-Trichloropropane	10.0	9.01		ug/L		90.1	60 - 140
4-Chlorotoluene	10.0	9.05		ug/L		90.5	60 - 140
tert-Butylbenzene	10.0	9.04		ug/L		90.4	60 - 140
1,2,4-Trimethylbenzene	10.0	8.93		ug/L		89.3	60 - 140
sec-Butylbenzene	10.0	8.68		ug/L		86.8	60 - 140
p-Isopropyltoluene	10.0	8.59		ug/L		85.9	60 - 140
1,3-Dichlorobenzene	10.0	9.06		ug/L		90.6	60 - 140
1,4-Dichlorobenzene	10.0	8.98		ug/L		89.8	60 - 140
n-Butylbenzene	10.0	8.56		ug/L		85.6	60 - 140

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14I0154-BS1
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	10.0	9.21		ug/L		92.1	60 - 140
1,2-Dibromo-3-chloropropane	10.0	9.03		ug/L		90.3	60 - 140
Hexachlorobutadiene	10.0	8.77		ug/L		87.7	60 - 140
1,2,4-Trichlorobenzene	10.0	9.11		ug/L		91.1	60 - 140
Naphthalene	10.0	8.89		ug/L		88.9	62.8 - 132
1,2,3-Trichlorobenzene	10.0	9.62		ug/L		96.2	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*102*		*71.2 - 143*
1,2-dichloroethane-d4	*101*		*70 - 140*
Toluene-d8	*100*		*74.1 - 135*
4-bromofluorobenzene	*101*		*68.7 - 141*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 14I0154-BLK1
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		100		ug/L		09/24/14 13:48	09/24/14 17:43	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*102*		*68.7 - 141*	*09/24/14 13:48*	*09/24/14 17:43*	*1.00*

Lab Sample ID: 14I0154-BS2
Matrix: Water
Analysis Batch: 14I0154

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0154_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	1000	938		ug/L		93.8	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-bromofluorobenzene	*99.5*		*68.7 - 141*

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14I0133-BLK1
Matrix: Water
Analysis Batch: 14I0133

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0133_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
2-Methylnaphthalene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
1-Methylnaphthalene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Acenaphthylene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Acenaphthene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14I0133-BLK1
Matrix: Water
Analysis Batch: 14I0133

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0133_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Phenanthrene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Anthracene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Fluoranthene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Pyrene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Benzo (a) anthracene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Chrysene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Benzo (b) fluoranthene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Benzo (k) fluoranthene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Benzo (a) pyrene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Indeno (1,2,3-cd) pyrene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Dibenzo (a,h) anthracene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00
Benzo (ghi) perylene	ND		0.100		ug/L		09/22/14 13:41	09/24/14 15:05	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85.7*		*32.7 - 135*	*09/22/14 13:41*	*09/24/14 15:05*	*1.00*
2-FBP	*86.4*		*44.3 - 120*	*09/22/14 13:41*	*09/24/14 15:05*	*1.00*
p-Terphenyl-d14	*104*		*59.5 - 154*	*09/22/14 13:41*	*09/24/14 15:05*	*1.00*

Lab Sample ID: 14I0133-BS1
Matrix: Water
Analysis Batch: 14I0133

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0133_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.60	1.51		ug/L		94.4	27.8 - 143
Fluorene	1.60	1.60		ug/L		100	59.2 - 120
Chrysene	1.60	1.61		ug/L		101	69.1 - 122
Indeno (1,2,3-cd) pyrene	1.60	1.21		ug/L		75.9	56.1 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*95.3*		*32.7 - 135*
2-FBP	*96.4*		*44.3 - 120*
p-Terphenyl-d14	*106*		*59.5 - 154*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup

Lab Sample ID: 14I0130-BLK2
Matrix: Water
Analysis Batch: 14I0130

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0130_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		09/22/14 09:13	10/03/14 14:31	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/L		09/22/14 09:13	10/03/14 14:31	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93.0*		*50 - 150*	*09/22/14 09:13*	*10/03/14 14:31*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup (Continued)

Lab Sample ID: 14I0130-BLK2
Matrix: Water
Analysis Batch: 14I0130

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0130_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Triacontane-d62	*96.2*		*50 - 150*	*09/22/14 09:13*	*10/03/14 14:31*	*1.00*

Lab Sample ID: 14I0130-BS2
Matrix: Water
Analysis Batch: 14I0130

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0130_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	2.56		mg/L		80.1	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	*95.8*		*50 - 150*
n-Triacontane-d62	*98.5*		*50 - 150*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14I0130-BLK1
Matrix: Water
Analysis Batch: 14I0130

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14I0130_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		0.240		mg/L		09/22/14 09:13	09/23/14 10:39	1.00
Heavy Oil Range Hydrocarbons	ND		0.400		mg/L		09/22/14 09:13	09/23/14 10:39	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*120*		*50 - 150*	*09/22/14 09:13*	*09/23/14 10:39*	*1.00*
n-Triacontane-d62	*128*		*50 - 150*	*09/22/14 09:13*	*09/23/14 10:39*	*1.00*

Lab Sample ID: 14I0130-BS1
Matrix: Water
Analysis Batch: 14I0130

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14I0130_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			3.20	2.74		mg/L		85.7	50 - 150		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	*96.2*		*50 - 150*
n-Triacontane-d62	*111*		*50 - 150*

Method: EPA 300.0 - Anions by EPA Method 300.0

Lab Sample ID: 14I0091-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0091 — **Prep Batch: 14I0091_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate-Nitrogen	ND		0.200		mg/L		09/16/14 08:56	09/16/14 13:05	1.00
Sulfate	ND		0.500		mg/L		09/16/14 08:56	09/16/14 13:05	1.00

Lab Sample ID: 14I0091-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0091 — **Prep Batch: 14I0091_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	5.00	5.08		mg/L		102	90 - 110
Sulfate	12.5	12.0		mg/L		96.4	90 - 110

Lab Sample ID: 14I0091-MS1 — **Client Sample ID: MW-5-091514**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0091 — **Prep Batch: 14I0091_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate-Nitrogen	2.78		5.00	8.72		mg/L		119	80 - 120
Sulfate	12.1		12.5	24.8		mg/L		102	80 - 120

Lab Sample ID: 14I0091-MSD1 — **Client Sample ID: MW-5-091514**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0091 — **Prep Batch: 14I0091_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate-Nitrogen	2.78		5.00	8.77		mg/L		120	80 - 120	0.503	12.1
Sulfate	12.1		12.5	24.8		mg/L		102	80 - 120	0.044 3	10

Lab Sample ID: 14I0091-DUP1 — **Client Sample ID: MW-5-091514**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0091 — **Prep Batch: 14I0091_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Nitrate-Nitrogen	2.78		3.13		mg/L		11.8	13.1
Sulfate	12.1		12.2		mg/L		0.905	15.7

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods

Lab Sample ID: 14I0171-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0171 — **Prep Batch: 14I0171_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		4.00		mg/L		09/26/14 10:19	09/26/14 16:09	1.00

Method: SM 2320B - Conventional Chemistry Parameters by APHA/EPA Methods (Continued)

Lab Sample ID: 14I0171-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0171 — **Prep Batch: 14I0171_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity	500	490		mg/L		98.0	90 - 110

Lab Sample ID: 14I0171-DUP1 — **Client Sample ID: MW-1-091514**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 14I0171 — **Prep Batch: 14I0171_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	70.0		72.5		mg/L		3.51	10

Method: SM 5310C - TOC

Lab Sample ID: 193629-1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.00		mg/L		09/25/14 12:00	09/25/14 12:00	1

Lab Sample ID: 193629-4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.803		mg/L		98	90 - 110

Lab Sample ID: 193629-5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	10.0	9.874		mg/L		99	90 - 110	1	20

Lab Sample ID: 193629-11 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon			20.0	21.94		mg/L		88	75 - 122

Lab Sample ID: 193629-12 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total**
Analysis Batch: 193629 — **Prep Batch: 193629_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			20.0	21.62		mg/L		86	75 - 122	1	20

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-1-091514
Lab Sample ID: SXI0094-01
Date Collected: 09/15/14 12:04
Matrix: Water
Date Received: 09/16/14 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0091_P	09/16/14 08:56	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0091	09/16/14 09:31	CBW	TAL SPK
Total	Prep	Wet Chem		1.00	14I0171_P	09/26/14 10:19	MS	TAL SPK
Total	Analysis	SM 2320B		1.00	14I0171	09/26/14 16:09	MS	TAL SPK

Client Sample ID: MW-2-091514
Lab Sample ID: SXI0094-02
Date Collected: 09/15/14 14:04
Matrix: Water
Date Received: 09/16/14 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0091_P	09/16/14 08:56	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0091	09/16/14 09:45	CBW	TAL SPK

Client Sample ID: MW-3-091514
Lab Sample ID: SXI0094-03
Date Collected: 09/15/14 13:25
Matrix: Water
Date Received: 09/16/14 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0091_P	09/16/14 08:56	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0091	09/16/14 09:59	CBW	TAL SPK

Client Sample ID: MW-4-091514
Lab Sample ID: SXI0094-04
Date Collected: 09/15/14 11:18
Matrix: Water
Date Received: 09/16/14 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0091_P	09/16/14 08:56	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0091	09/16/14 10:14	CBW	TAL SPK

Client Sample ID: MW-5-091514
Lab Sample ID: SXI0094-05
Date Collected: 09/15/14 12:47
Matrix: Water
Date Received: 09/16/14 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0091_P	09/16/14 08:56	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0091	09/16/14 10:28	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-Dup-091514

Lab Sample ID: SXI0094-06

Date Collected: 09/15/14 08:00

Matrix: Water

Date Received: 09/16/14 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Wet Chem		1.00	14I0091_P	09/16/14 08:56	CBW	TAL SPK
Total	Analysis	EPA 300.0		1.00	14I0091	09/16/14 10:42	CBW	TAL SPK

Client Sample ID: MW-1-091514

Lab Sample ID: SXI0136-01

Date Collected: 09/15/14 12:04

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0154	09/24/14 18:51	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0154	09/24/14 18:51	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.938	14I0133_P	09/22/14 13:41	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0133	09/24/14 15:55	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.954	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	09/23/14 12:37	NMI	TAL SPK
Total	Analysis	SM 5310C		1	193629	09/25/14 12:00	JKF	TAL NSH
Total	Prep	NA			193629_P	09/25/14 12:00		TAL NSH

Client Sample ID: MW-2-091514

Lab Sample ID: SXI0136-02

Date Collected: 09/15/14 14:04

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0154	09/24/14 19:14	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0154	09/24/14 19:14	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.952	14I0133_P	09/22/14 13:41	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0133	09/24/14 16:19	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	09/22/14 16:50	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	10/03/14 13:44	NMI	TAL SPK

Client Sample ID: MW-3-091514

Lab Sample ID: SXI0136-03

Date Collected: 09/15/14 13:25

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0154	09/24/14 19:36	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK

Client Sample ID: MW-3-091514

Lab Sample ID: SXI0136-03

Date Collected: 09/15/14 13:25

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-Gx		1.00	14I0154	09/24/14 19:36	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.962	14I0133_P	09/22/14 13:41	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0133	09/24/14 16:44	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	09/23/14 12:56	NMI	TAL SPK

Client Sample ID: MW-4-091514

Lab Sample ID: SXI0136-04

Date Collected: 09/15/14 11:18

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0154	09/24/14 19:59	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0154	09/24/14 19:59	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	14I0133_P	09/22/14 13:41	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0133	09/24/14 17:09	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.952	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	09/22/14 17:14	NMI	TAL SPK

Client Sample ID: MW-5-091514

Lab Sample ID: SXI0136-05

Date Collected: 09/15/14 12:47

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0154	09/24/14 20:21	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0154	09/24/14 20:21	CBW	TAL SPK
Total	Prep	EPA 3510/600 Series		0.952	14I0133_P	09/22/14 13:41	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0133	09/24/14 17:33	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.956	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	09/23/14 13:19	NMI	TAL SPK

Client Sample ID: MW-Dup-091514

Lab Sample ID: SXI0136-06

Date Collected: 09/15/14 08:00

Matrix: Water

Date Received: 09/19/14 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14I0154	09/24/14 20:44	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.00	14I0154_P	09/24/14 13:48	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14I0154	09/24/14 20:44	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Client Sample ID: MW-Dup-091514
Date Collected: 09/15/14 08:00
Date Received: 09/19/14 09:50

Lab Sample ID: SXI0136-06
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510/600 Series		0.949	14I0133_P	09/22/14 13:41	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14I0133	09/24/14 17:58	ZZZ	TAL SPK
Total	Prep	EPA 3510/600 Series		0.960	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	09/22/14 17:38	NMI	TAL SPK
Total	Prep	EPA 3510/600 Series		0.960	14I0130_P	09/22/14 09:13	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14I0130	10/03/14 14:53	NMI	TAL SPK

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (800) 765-0980

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-15
A2LA	ISO/IEC 17025		0453.07	12-31-15
Alaska (UST)	State Program	10	UST-087	10-31-14
Arizona	State Program	9	AZ0473	05-05-15
Arkansas DEQ	State Program	6	88-0737	04-25-15
California	NELAP	9	1168CA	10-31-14
Connecticut	State Program	1	PH-0220	12-31-15
Florida	NELAP	4	E87358	06-30-15
Illinois	NELAP	5	200010	12-09-14
Iowa	State Program	7	131	04-01-16
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-15
Kentucky (WW)	State Program	4	90038	12-31-14
Louisiana	NELAP	6	30613	06-30-15
Maryland	State Program	3	316	03-31-15
Massachusetts	State Program	1	M-TN032	06-30-15
Minnesota	NELAP	5	047-999-345	12-31-14
Mississippi	State Program	4	N/A	06-30-15
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-15
New Hampshire	NELAP	1	2963	10-09-15
New Jersey	NELAP	2	TN965	06-30-15
New York	NELAP	2	11342	03-31-15
North Carolina (WW/SW)	State Program	4	387	12-31-14
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-15
Oregon	NELAP	10	TN200001	04-29-15
Pennsylvania	NELAP	3	68-00585	06-30-15
Rhode Island	State Program	1	LAO00268	12-30-14
South Carolina	State Program	4	84009 (001)	02-28-15
South Carolina (DW)	State Program	4	84009 (002)	02-23-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-15
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-15
Virginia	NELAP	3	460152	06-14-15
Washington	State Program	10	C789	07-19-15
West Virginia DEP	State Program	3	219	02-28-15
Wisconsin	State Program	5	998020430	08-31-15
Wyoming (UST)	A2LA	8	453.07	12-31-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXI0094

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup		TAL SPK
EPA 300.0	Anions by EPA Method 300.0		TAL SPK
SM 2320B	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK
SM 5310C	TOC		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (800) 765-0980

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SKI1094

CLIENT: Geo Engineers

REPORT TO: JR Sugalski jrsugalski@geoengineers.com
ADDRESS: 523 E Second Ave
Spokane WA 99202
PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Three Tiger Oils - East Nob Hill
PROJECT NUMBER: 0504-101-00
SAMPLED BY: Justin Rice

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [X] STD. [7] [5] [4] [3] [2] [1] [<1]
Petroleum Hydrocarbon Analyses: [X] STD. [4] [3] [2] [1] [<1]
[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: Nitrate	Sulfate	Alkalinity	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-1-091514	9/15/14 1204		x	x	x				
2	MW-2-091514	9/15/14 1404								
3	MW-3-091514	9/15/14 1325								
4	MW-4-091514	9/15/14 1118								
5	MW-5-091514	9/15/14 1247								
6	MW-DUP-091514	9/15/14 0800								
7										
8										
9										
10										

RELEASED BY: Justin Rice DATE: 9/15/14
PRINT NAME: JR FIRM: Geo TIME: 1530

RECEIVED BY: Pat Stapleton DATE: 9-16-14
PRINT NAME: FIRM: TestAmerica TIME: 8:30

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 1.6

PAGE 1 OF 1

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXI0094	Client: GeoEngineers	Project: Tiger Oil
Date/Time Received: 9-16-14 8:30	By: CS	

Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Client ☐ Other: _____

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	X			
Custody Seals are present and intact:			Y	
Are CoC documents present:	Y			
Necessary signatures:	Y			

Thermal Preservation Type: ☐ Blue Ice ☐ Gel Ice ☒ Real Ice ☐ Dry Ice ☐ None ☐ Other: _____

Temperature: 1.6 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐ Not enough ice ☐ Ice melted ☐ w/in 4hrs of collection ☐ NA ☐ Other: _____

Log-in Phase Date/Time: 9-16-14 8320 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	X			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)			Y	
Are dissolved parameters field filtered			Y	
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis		Y		
Are there any short hold time tests (see chart below)	Y			Nitrate
Are any samples within 2 days of or past expiration		X		
Was the CoC scanned	Y			
Were there Non-conformance issues at login		Y		
If yes, was a CAR generated #			Y	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290 X
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXL0136

CLIENT: GeoEngineers

REPORT TO: JR Sugalski

ADDRESS: 523 E Second Ave
Spokane WA 99202

PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Three Tiger Oil - East Wob Hill

PROJECT NUMBER: 0504-101-00

SAMPLED BY: Justin Rice

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: ~~10~~ STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: ~~5~~ STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	NWTPH-Gx	VOCs	NWTPH-Dx	TOC	PAHs	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	MW-1-091514	9/15/14 1204		X	X	X	X	X	W	6		
2	MW-2-091514	1404										
3	MW-3-091514	1325										
4	MW-4-091514	1118										
5	MW-5-091514	1247										
6	MW-DUP-091514	0800										
7												
8												
9												
10												

REQUESTED ANALYSES

RELEASED BY: [signature] DATE: 9/19/14
PRINT NAME: Justin Rice FIRM: Geo TIME: 0950

RECEIVED BY: [signature] DATE: 9/19/14
PRINT NAME: Pat Stapleton FIRM: TA TIME: 0950

RELEASED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 38 PAGE 1 OF 1

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXI0136	Client: GeoEngineers	Project: Tiger Oil
Date/Time Received: 9-19-14 9:00	By: CS	

Samples Delivered By: ☐Shipping Service ☐Courier ☒Client ☐Other:

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	Y			
Custody Seals are present and intact:			Y	
Are CoC documents present:	Y			
Necessary signatures:	Y			

Thermal Preservation Type: ☐Blue Ice ☐Gel Ice ☒Real Ice ☐Dry Ice ☐None ☐Other:

Temperature: 3.8 °C Thermometer (Circle one Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐Not enough ice ☐Ice melted ☐w/in 4hrs of collection ☐NA ☐Other:

Log-In Phase Date/Time: 9-19-14 1217 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)	Y			
Are dissolved parameters field filtered			Y	
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis			Y	
Are there any short hold time tests (see chart below)		Y		
Are any samples within 2 days of or past expiration		Y		
Was the CoC scanned	Y			
Were there Non-conformance issues at login	Y	Y		
If yes, was a CAR generated #			Y	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SXH0071
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - E Nob Hill

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: JR Sugalski

Authorized for release by:
8/25/2014 1:49:03 PM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXH0071-03	NHMW-1 (13-14')	Soil	08/08/14 10:00	08/12/14 10:35
SXH0071-04	Duplicate 2	Soil	08/08/14 07:30	08/12/14 10:35

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Client Sample ID: NHMW-1 (13-14')
Date Collected: 08/08/14 10:00
Date Received: 08/12/14 10:35

Lab Sample ID: SXH0071-03
Matrix: Soil
Percent Solids: 94.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0354		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
Benzene	ND		0.0177		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
Toluene	ND		0.118		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
Ethylbenzene	ND		0.118		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
m,p-Xylene	ND		0.472		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
o-Xylene	ND		0.236		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
1,2-Dichloroethane (EDC)	ND		0.118		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00
Xylenes (total)	ND		0.708		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*96.9*		*80 - 120*	*08/13/14 07:57*	*08/13/14 22:44*	*1.00*
1,2-dichloroethane-d4	*99.7*		*74.7 - 120*	*08/13/14 07:57*	*08/13/14 22:44*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/13/14 07:57*	*08/13/14 22:44*	*1.00*
4-bromofluorobenzene	*98.9*		*69.8 - 140*	*08/13/14 07:57*	*08/13/14 22:44*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	7.19		5.90		mg/kg dry	☼	08/13/14 07:57	08/13/14 22:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*98.9*		*41.5 - 162*	*08/13/14 07:57*	*08/13/14 22:44*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.04		ug/kg dry	☼	08/14/14 14:56	08/14/14 20:57	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
2-Methylnaphthalene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
1-Methylnaphthalene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Acenaphthylene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Acenaphthene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Fluorene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Phenanthrene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Anthracene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Fluoranthene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Pyrene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Benzo (a) anthracene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Chrysene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Benzo (b) fluoranthene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Benzo (k) fluoranthene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Benzo (a) pyrene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Dibenzo (a,h) anthracene	ND		0.0124		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00
Benzo (ghi) perylene	ND		0.0206		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:05	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66.0*		*36.3 - 152*	*08/14/14 09:40*	*08/15/14 16:05*	*1.00*
2-FBP	*67.6*		*30.2 - 135*	*08/14/14 09:40*	*08/15/14 16:05*	*1.00*
p-Terphenyl-d14	*108*		*65.1 - 134*	*08/14/14 09:40*	*08/15/14 16:05*	*1.00*

Client Sample ID: NHMW-1 (13-14')

Lab Sample ID: SXH0071-03

Date Collected: 08/08/14 10:00
Matrix: Soil
Date Received: 08/12/14 10:35
Percent Solids: 94.8

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.6		mg/kg dry	☼	08/12/14 11:50	08/12/14 22:21	1.00
Heavy Oil Range Hydrocarbons	ND		26.4		mg/kg dry	☼	08/12/14 11:50	08/12/14 22:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*08/12/14 11:50*	*08/12/14 22:21*	*1.00*
n-Triacontane-d62	*94.3*		*50 - 150*	*08/12/14 11:50*	*08/12/14 22:21*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.20		mg/kg dry	☼	08/18/14 09:07	08/25/14 10:57	1.00

Client Sample ID: Duplicate 2

Lab Sample ID: SXH0071-04

Date Collected: 08/08/14 07:30
Matrix: Soil
Date Received: 08/12/14 10:35
Percent Solids: 95

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0335		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
Benzene	ND		0.0167		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
Toluene	ND		0.112		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
Ethylbenzene	ND		0.112		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
m,p-Xylene	ND		0.446		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
o-Xylene	ND		0.223		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
1,2-Dichloroethane (EDC)	ND		0.112		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00
Xylenes (total)	ND		0.670		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*80 - 120*	*08/13/14 07:57*	*08/13/14 23:07*	*1.00*
1,2-dichloroethane-d4	*99.3*		*74.7 - 120*	*08/13/14 07:57*	*08/13/14 23:07*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/13/14 07:57*	*08/13/14 23:07*	*1.00*
4-bromofluorobenzene	*99.9*		*69.8 - 140*	*08/13/14 07:57*	*08/13/14 23:07*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	5.85		5.58		mg/kg dry	☼	08/13/14 07:57	08/13/14 23:07	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*99.9*		*41.5 - 162*	*08/13/14 07:57*	*08/13/14 23:07*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.02		ug/kg dry	☼	08/14/14 14:56	08/14/14 21:11	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
2-Methylnaphthalene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
1-Methylnaphthalene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Acenaphthylene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Acenaphthene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Fluorene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Client Sample ID: Duplicate 2
Date Collected: 08/08/14 07:30
Date Received: 08/12/14 10:35

Lab Sample ID: SXH0071-04
Matrix: Soil
Percent Solids: 95

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Anthracene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Fluoranthene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Pyrene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Benzo (a) anthracene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Chrysene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Benzo (b) fluoranthene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Benzo (k) fluoranthene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Benzo (a) pyrene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Dibenzo (a,h) anthracene	ND		0.0126		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00
Benzo (ghi) perylene	ND		0.0210		mg/kg dry	☼	08/14/14 09:40	08/15/14 16:27	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*84.8*		*36.3 - 152*	*08/14/14 09:40*	*08/15/14 16:27*	*1.00*
2-FBP	*81.8*		*30.2 - 135*	*08/14/14 09:40*	*08/15/14 16:27*	*1.00*
p-Terphenyl-d14	*101*		*65.1 - 134*	*08/14/14 09:40*	*08/15/14 16:27*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg dry	☼	08/12/14 11:50	08/12/14 22:45	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg dry	☼	08/12/14 11:50	08/12/14 22:45	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*08/12/14 11:50*	*08/12/14 22:45*	*1.00*
n-Triacontane-d62	*96.2*		*50 - 150*	*08/12/14 11:50*	*08/12/14 22:45*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.17		mg/kg dry	☼	08/18/14 09:07	08/25/14 11:01	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14H0050-BLK1
Matrix: Soil
Analysis Batch: 14H0050

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0050_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
Benzene	ND		0.0150		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
Toluene	ND		0.100		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
Ethylbenzene	ND		0.100		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
m,p-Xylene	ND		0.400		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
o-Xylene	ND		0.200		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00
Xylenes (total)	ND		0.600		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*80 - 120*	*08/13/14 07:57*	*08/13/14 15:38*	*1.00*
1,2-dichloroethane-d4	*94.8*		*74.7 - 120*	*08/13/14 07:57*	*08/13/14 15:38*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/13/14 07:57*	*08/13/14 15:38*	*1.00*
4-bromofluorobenzene	*100*		*69.8 - 140*	*08/13/14 07:57*	*08/13/14 15:38*	*1.00*
a,a,a - Trifluorotoluene	*105*		*50 - 150*	*08/13/14 07:57*	*08/13/14 15:38*	*1.00*

Lab Sample ID: 14H0050-BS1
Matrix: Soil
Analysis Batch: 14H0050

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0050_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.538		mg/kg wet		108	60 - 140
Benzene	0.500	0.526		mg/kg wet		105	75.8 - 123
Toluene	0.500	0.562		mg/kg wet		112	76.6 - 125
Ethylbenzene	0.500	0.545		mg/kg wet		109	77.3 - 121
m,p-Xylene	0.500	0.548		mg/kg wet		110	77.7 - 124
o-Xylene	0.500	0.560		mg/kg wet		112	76.7 - 129
Naphthalene	0.500	0.511		mg/kg wet		102	55.1 - 142
1,2-Dichloroethane (EDC)	0.500	0.560		mg/kg wet		112	71.1 - 142
1,2-Dibromoethane	0.500	0.600		mg/kg wet		120	77.1 - 129
Xylenes (total)	1.00	1.11		mg/kg wet		111	76.5 - 124
Hexane	0.500	0.544		mg/kg wet		109	77 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*99.1*		*80 - 120*
1,2-dichloroethane-d4	*100*		*74.7 - 120*
Toluene-d8	*103*		*78.5 - 125*
4-bromofluorobenzene	*101*		*69.8 - 140*
a,a,a - Trifluorotoluene	*106*		*60 - 120*

Lab Sample ID: 14H0050-BSD1
Matrix: Soil
Analysis Batch: 14H0050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14H0050_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	0.500	0.440		mg/kg wet		88.1	60 - 140	19.8	25
Benzene	0.500	0.434		mg/kg wet		86.9	75.8 - 123	19.0	25

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14H0050-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0050 — **Prep Batch: 14H0050_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.500	0.456		mg/kg wet		91.3	76.6 - 125	20.6	25
Ethylbenzene			0.500	0.446		mg/kg wet		89.1	77.3 - 121	20.1	25
m,p-Xylene			0.500	0.444		mg/kg wet		88.9	77.7 - 124	20.8	25
o-Xylene			0.500	0.458		mg/kg wet		91.7	76.7 - 129	19.9	25
Naphthalene			0.500	0.421		mg/kg wet		84.2	55.1 - 142	19.3	25
1,2-Dichloroethane (EDC)			0.500	0.470		mg/kg wet		94.0	71.1 - 142	17.4	25
1,2-Dibromoethane			0.500	0.482		mg/kg wet		96.3	77.1 - 129	22.0	25
Xylenes (total)			1.00	0.903		mg/kg wet		90.3	76.5 - 124	20.3	25
Hexane			0.500	0.445		mg/kg wet		89.0	77 - 130	20.1	25

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*100*		*80 - 120*
1,2-dichloroethane-d4	*99.7*		*74.7 - 120*
Toluene-d8	*103*		*78.5 - 125*
4-bromofluorobenzene	*99.3*		*69.8 - 140*
a,a,a - Trifluorotoluene	*99.1*		*60 - 120*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 14H0050-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0050 — **Prep Batch: 14H0050_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		08/13/14 07:57	08/13/14 15:38	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*100*		*41.5 - 162*	*08/13/14 07:57*	*08/13/14 15:38*	*1.00*

Lab Sample ID: 14H0050-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0050 — **Prep Batch: 14H0050_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons			50.0	49.9		mg/kg wet		99.9	74.4 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-bromofluorobenzene	*99.4*		*41.5 - 162*

Lab Sample ID: 14H0050-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0050 — **Prep Batch: 14H0050_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			50.0	49.6		mg/kg wet		99.2	74.4 - 124	0.647	20

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx (Continued)

Lab Sample ID: 14H0050-BSD2
Matrix: Soil
Analysis Batch: 14H0050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14H0050_P

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
4-bromofluorobenzene	*102*		*41.5 - 162*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14H0073-BLK1
Matrix: Soil
Analysis Batch: 14H0073

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0073_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		08/14/14 14:56	08/14/14 18:20	1.00
1,2-Dibromo-3-chloropropane	ND		1.00		ug/kg wet		08/14/14 14:56	08/14/14 18:20	1.00

Lab Sample ID: 14H0073-BS1
Matrix: Soil
Analysis Batch: 14H0073

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0073_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	4.60		ug/kg wet		92.0	60 - 140
1,2-Dibromo-3-chloropropane	5.00	4.68		ug/kg wet		93.7	60 - 140

Lab Sample ID: 14H0073-BS2
Matrix: Soil
Analysis Batch: 14H0073

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0073_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	4.46		ug/kg wet		89.2	60 - 140
1,2-Dibromo-3-chloropropane	5.00	5.16		ug/kg wet		103	60 - 140

Lab Sample ID: 14H0073-MS1
Matrix: Soil
Analysis Batch: 14H0073

Client Sample ID: NHMW-1 (13-14')
Prep Type: Total
Prep Batch: 14H0073_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	ND		4.90	5.01		ug/kg dry	☼	102	60 - 140
1,2-Dibromo-3-chloropropane	ND		4.90	4.84		ug/kg dry	☼	98.8	60 - 140

Lab Sample ID: 14H0073-MSD1
Matrix: Soil
Analysis Batch: 14H0073

Client Sample ID: NHMW-1 (13-14')
Prep Type: Total
Prep Batch: 14H0073_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		5.17	5.36		ug/kg dry	☼	104	60 - 140	6.78	20
1,2-Dibromo-3-chloropropane	ND		5.17	5.64		ug/kg dry	☼	109	60 - 140	15.3	20

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14H0068-BLK1
Matrix: Soil
Analysis Batch: 14H0068

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0068_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Acenaphthene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Fluorene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Phenanthrene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Anthracene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Fluoranthene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Pyrene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Chrysene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Dibenzo (a,h) anthracene	ND		0.00600		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		08/14/14 09:40	08/14/14 14:31	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*83.6*		*36.3 - 152*	*08/14/14 09:40*	*08/14/14 14:31*	*1.00*
2-FBP	*92.6*		*30.2 - 135*	*08/14/14 09:40*	*08/14/14 14:31*	*1.00*
p-Terphenyl-d14	*111*		*65.1 - 134*	*08/14/14 09:40*	*08/14/14 14:31*	*1.00*

Lab Sample ID: 14H0068-BS1
Matrix: Soil
Analysis Batch: 14H0068

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0068_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			0.133	0.109		mg/kg wet		82.0	62.7 - 120		
Fluorene			0.133	0.110		mg/kg wet		82.5	67.9 - 124		
Chrysene			0.133	0.121		mg/kg wet		91.0	68.2 - 132		
Indeno (1,2,3-cd) pyrene			0.133	0.0993		mg/kg wet		74.5	52.6 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*87.2*		*36.3 - 152*
2-FBP	*88.4*		*30.2 - 135*
p-Terphenyl-d14	*112*		*65.1 - 134*

Lab Sample ID: 14H0068-MS1
Matrix: Soil
Analysis Batch: 14H0068

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 14H0068_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene	ND		0.264	0.212		mg/kg dry	☼	80.5	30 - 120		
Fluorene	ND		0.264	0.229		mg/kg dry	☼	87.0	30 - 140		
Chrysene	ND		0.264	0.236		mg/kg dry	☼	89.5	30 - 133		

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14H0068-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0068 — **Prep Batch: 14H0068_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno (1,2,3-cd) pyrene	ND		0.264	0.212		mg/kg dry	☼	80.5	30 - 140

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*85.0*		*36.3 - 152*
2-FBP	*85.0*		*30.2 - 135*
p-Terphenyl-d14	*104*		*65.1 - 134*

Lab Sample ID: 14H0068-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0068 — **Prep Batch: 14H0068_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		0.270	0.213		mg/kg dry	☼	79.0	30 - 120	0.538	35
Fluorene	ND		0.270	0.216		mg/kg dry	☼	80.0	30 - 140	5.97	35
Chrysene	ND		0.270	0.242		mg/kg dry	☼	89.5	30 - 133	2.42	35
Indeno (1,2,3-cd) pyrene	ND		0.270	0.188		mg/kg dry	☼	69.5	30 - 140	12.3	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*79.6*		*36.3 - 152*
2-FBP	*80.0*		*30.2 - 135*
p-Terphenyl-d14	*100*		*65.1 - 134*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14H0043-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0043 — **Prep Batch: 14H0043_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		08/12/14 09:24	08/12/14 15:46	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		08/12/14 09:24	08/12/14 15:46	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94.4*		*50 - 150*	*08/12/14 09:24*	*08/12/14 15:46*	*1.00*
n-Triacontane-d62	*85.3*		*50 - 150*	*08/12/14 09:24*	*08/12/14 15:46*	*1.00*

Lab Sample ID: 14H0043-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0043 — **Prep Batch: 14H0043_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons			66.7	54.1		mg/kg wet		81.1	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*90.9*		*50 - 150*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 14H0043-BS1
Matrix: Soil
Analysis Batch: 14H0043

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0043_P

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Triacontane-d62	*80.8*		*50 - 150*

Lab Sample ID: 14H0043-DUP2
Matrix: Soil
Analysis Batch: 14H0043

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14H0043_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	5.10			4.27		mg/kg dry	☼			17.5	40
Heavy Oil Range Hydrocarbons	4.53			4.04		mg/kg dry	☼			11.4	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*98.7*		*50 - 150*
n-Triacontane-d62	*96.9*		*50 - 150*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Lab Sample ID: 14H0087-BLK1
Matrix: Other (S)
Analysis Batch: 14H0087

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0087_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.25		mg/kg wet		08/18/14 09:07	08/19/14 10:55	1.00

Lab Sample ID: 14H0087-BS1
Matrix: Other (S)
Analysis Batch: 14H0087

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0087_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			50.0	50.5		mg/kg wet		101	80 - 120		

Lab Sample ID: 14H0087-MS1
Matrix: Other (S)
Analysis Batch: 14H0087

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 14H0087_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	9.14		58.6	64.2		mg/kg dry	☼	94.0	75 - 125		

Lab Sample ID: 14H0087-MSD1
Matrix: Other (S)
Analysis Batch: 14H0087

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 14H0087_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	9.14		54.1	60.4		mg/kg dry	☼	94.7	75 - 125	6.20	20

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B (Continued)

Lab Sample ID: 14H0087-DUP1
Matrix: Other (S)
Analysis Batch: 14H0087

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14H0087_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Lead	9.14			8.93		mg/kg dry	☼			2.35	20

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Client Sample ID: NHMW-1 (13-14')

Lab Sample ID: SXH0071-03

Date Collected: 08/08/14 10:00
Matrix: Soil
Date Received: 08/12/14 10:35
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.07	14H0050_P	08/13/14 07:57	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0050	08/13/14 22:44	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.07	14H0050_P	08/13/14 07:57	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0050	08/13/14 22:44	CBW	TAL SPK
Total	Prep	EPA 3580		0.986	14H0073_P	08/14/14 14:56	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0073	08/14/14 20:57	NMI	TAL SPK
Total	Prep	EPA 3550B		1.96	14H0068_P	08/14/14 09:40	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0068	08/15/14 16:05	NMI	TAL SPK
Total	Prep	EPA 3550B		1.00	14H0043_P	08/12/14 11:50	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0043	08/12/14 22:21	NMI	TAL SPK
Total	Prep	EPA 3050B		0.909	14H0087_P	08/18/14 09:07	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0087	08/25/14 10:57	ICP	TAL SPK

Client Sample ID: Duplicate 2

Lab Sample ID: SXH0071-04

Date Collected: 08/08/14 07:30
Matrix: Soil
Date Received: 08/12/14 10:35
Percent Solids: 95

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.01	14H0050_P	08/13/14 07:57	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0050	08/13/14 23:07	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.01	14H0050_P	08/13/14 07:57	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0050	08/13/14 23:07	CBW	TAL SPK
Total	Prep	EPA 3580		0.971	14H0073_P	08/14/14 14:56	NI	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0073	08/14/14 21:11	NMI	TAL SPK
Total	Prep	EPA 3550B		1.99	14H0068_P	08/14/14 09:40	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0068	08/15/14 16:27	NMI	TAL SPK
Total	Prep	EPA 3550B		0.951	14H0043_P	08/12/14 11:50	NI	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0043	08/12/14 22:45	NMI	TAL SPK
Total	Prep	EPA 3050B		0.893	14H0087_P	08/18/14 09:07	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0087	08/25/14 11:01	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	14H0058_P	08/12/14 15:30	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14H0058	08/13/14 13:55	NI	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0071

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXH0071

CLIENT: GeoEngineers

REPORT TO: JR Sucharski

ADDRESS: 523 E 2nd Ave, Spokane, WA 99202

PHONE: 509 363 3125 FAX:

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Tiger Oil - East Nob Hill

PROJECT NUMBER: 0504-101-00

SAMPLED BY: Aaron Frederick

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		PRESERVATIVE	NWTPH-Dx	NWTPH-Gx	Naphthalenes 8270	EDB 8011	Pb 6010	BTEX 8260	EDC 8260	MTBE 8260						MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	NHMW-1 (4-5')	8/8/14	0920															S	2	Hold	
2	NHMW-1 (9-10')		0940															S	2	Hold	
3	NHMW-1 (13-14')		1000		X	X	X	X	X	X	X	X						S	3		
4	Duplicate 2		0730		X	X	X	X	X	X	X	X						S	3		
5																					
6																					
7																					
8																					
9																					
10																					

RELEASED BY: PRINT NAME: Aaron Frederick FIRM: GeoEngineers DATE: 8/11/14 TIME: 1300

RECEIVED BY: PRINT NAME: Cat Stapleton FIRM: TestAmerica DATE: 8-12-14 TIME: 10:35

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP: 5.4 PAGE OF

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXH1007	Client: GeoEngineers	Project: Tiger Oil
Date/Time Received: 8/12/14 10:35	By: CS	

Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Client ☐ Other: _____

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	Y			
Custody Seals are present and intact:			Y	
Are CoC documents present:	Y			
Necessary signatures:	Y			

Thermal Preservation Type: ☐ Blue Ice ☒ Gel Ice ☐ Real Ice ☐ Dry Ice ☐ None ☐ Other: _____

Temperature: 5.4 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐ Not enough Ice ☐ Ice melted ☐ w/in 4hrs of collection ☐ NA ☐ Other: _____

Log-In Phase Date/Time: 8/12/14 11:20 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)	Y			
Are dissolved parameters field filtered			Y	
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis			Y	
Are there any short hold time tests (see chart below)		Y		
Are any samples within 2 days of or past expiration		Y		
Was the CoC scanned	Y			
Were there Non-conformance issues at login		Y		
If yes, was a CAR generated #			N	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SXH0034
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - E Nob Hill

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: JR Sugalski

Authorized for release by:
8/14/2014 3:44:59 PM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXH0034-03	NHMW-2 (14-15')	Soil	08/05/14 08:20	08/07/14 10:45
SXH0034-05	NHMW-3 (8-9')	Soil	08/05/14 09:20	08/07/14 10:45
SXH0034-09	NHMW-4 (12-13')	Soil	08/05/14 16:00	08/07/14 10:45
SXH0034-11	NHMW-5 (14-15')	Soil	08/05/14 14:25	08/07/14 10:45

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Qualifiers

Fuels

Qualifier	Qualifier Description
Q6	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Client Sample ID: NHMW-2 (14-15')

Date Collected: 08/05/14 08:20
Date Received: 08/07/14 10:45

Lab Sample ID: SXH0034-03

Matrix: Soil
Percent Solids: 96.1

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0279		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
Benzene	ND		0.0139		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
Toluene	ND		0.0930		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
Ethylbenzene	ND		0.0930		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
m,p-Xylene	ND		0.372		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
o-Xylene	ND		0.186		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
1,2-Dichloroethane (EDC)	ND		0.0930		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00
Xylenes (total)	ND		0.558		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*97.6*		*80 - 120*	*08/11/14 08:02*	*08/11/14 14:59*	*1.00*
1,2-dichloroethane-d4	*97.3*		*74.7 - 120*	*08/11/14 08:02*	*08/11/14 14:59*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/11/14 08:02*	*08/11/14 14:59*	*1.00*
4-bromofluorobenzene	*99.9*		*69.8 - 140*	*08/11/14 08:02*	*08/11/14 14:59*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**5.01**		4.65		mg/kg dry	☼	08/11/14 08:02	08/11/14 14:59	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*99.9*		*41.5 - 162*	*08/11/14 08:02*	*08/11/14 14:59*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.998		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:18	1.00
1,2-Dibromo-3-chloropropane	ND		0.998		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:18	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
2-Methylnaphthalene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
1-Methylnaphthalene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Acenaphthylene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Acenaphthene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Fluorene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Phenanthrene	**0.0414**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Anthracene	ND		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Fluoranthene	**0.0677**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Pyrene	**0.0773**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Benzo (a) anthracene	**0.0483**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Chrysene	**0.0621**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Benzo (b) fluoranthene	**0.0732**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Benzo (k) fluoranthene	**0.0221**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Benzo (a) pyrene	**0.0580**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Indeno (1,2,3-cd) pyrene	**0.0373**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Dibenzo (a,h) anthracene	**0.0152**		0.0124		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00
Benzo (ghi) perylene	**0.0470**		0.0207		mg/kg dry	☼	08/11/14 08:31	08/11/14 20:53	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*118*		*36.3 - 152*	*08/11/14 08:31*	*08/11/14 20:53*	*1.00*
2-FBP	*105*		*30.2 - 135*	*08/11/14 08:31*	*08/11/14 20:53*	*1.00*

Client Sample ID: NHMW-2 (14-15')

Lab Sample ID: SXH0034-03
Date Collected: 08/05/14 08:20
Matrix: Soil
Date Received: 08/07/14 10:45
Percent Solids: 96.1

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	*99.6*		*65.1 - 134*	*08/11/14 08:31*	*08/11/14 20:53*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**33.1**	**Q6**	9.86		mg/kg dry	☼	08/08/14 09:07	08/11/14 12:44	1.00
Heavy Oil Range Hydrocarbons	**145**	**Q6**	24.7		mg/kg dry	☼	08/08/14 09:07	08/11/14 12:44	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*95.1*		*50 - 150*	*08/08/14 09:07*	*08/11/14 12:44*	*1.00*
n-Triacontane-d62	*85.6*		*50 - 150*	*08/08/14 09:07*	*08/11/14 12:44*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**22.0**		2.48		mg/kg dry	☼	08/08/14 11:53	08/12/14 12:11	2.00

Client Sample ID: NHMW-3 (8-9')

Lab Sample ID: SXH0034-05
Date Collected: 08/05/14 09:20
Matrix: Soil
Date Received: 08/07/14 10:45
Percent Solids: 94.3

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0318		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
Benzene	ND		0.0159		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
Toluene	ND		0.106		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
Ethylbenzene	ND		0.106		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
m,p-Xylene	ND		0.424		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
o-Xylene	ND		0.212		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
1,2-Dichloroethane (EDC)	ND		0.106		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00
Xylenes (total)	ND		0.635		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*102*		*80 - 120*	*08/11/14 08:02*	*08/11/14 15:22*	*1.00*
1,2-dichloroethane-d4	*98.1*		*74.7 - 120*	*08/11/14 08:02*	*08/11/14 15:22*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/11/14 08:02*	*08/11/14 15:22*	*1.00*
4-bromofluorobenzene	*99.2*		*69.8 - 140*	*08/11/14 08:02*	*08/11/14 15:22*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.29		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:22	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	*99.2*		*41.5 - 162*	*08/11/14 08:02*	*08/11/14 15:22*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.04		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:33	1.00
1,2-Dibromo-3-chloropropane	ND		1.04		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:33	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00

Client Sample ID: NHMW-3 (8-9')

Lab Sample ID: SXH0034-05

Date Collected: 08/05/14 09:20
Matrix: Soil
Date Received: 08/07/14 10:45
Percent Solids: 94.3

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
1-Methylnaphthalene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Acenaphthylene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Acenaphthene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Fluorene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Phenanthrene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Anthracene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Fluoranthene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Pyrene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Benzo (a) anthracene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Chrysene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Benzo (b) fluoranthene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Benzo (k) fluoranthene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Benzo (a) pyrene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Dibenzo (a,h) anthracene	ND		0.0123		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00
Benzo (ghi) perylene	ND		0.0206		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:15	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*97.8*		*36.3 - 152*	*08/11/14 08:31*	*08/11/14 21:15*	*1.00*
2-FBP	*92.0*		*30.2 - 135*	*08/11/14 08:31*	*08/11/14 21:15*	*1.00*
p-Terphenyl-d14	*97.6*		*65.1 - 134*	*08/11/14 08:31*	*08/11/14 21:15*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**26.4**	**Q6**	9.84		mg/kg dry	☼	08/08/14 09:07	08/11/14 13:08	1.00
Heavy Oil Range Hydrocarbons	**98.3**	**Q6**	24.6		mg/kg dry	☼	08/08/14 09:07	08/11/14 13:08	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97.1*		*50 - 150*	*08/08/14 09:07*	*08/11/14 13:08*	*1.00*
n-Triacontane-d62	*95.1*		*50 - 150*	*08/08/14 09:07*	*08/11/14 13:08*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**25.1**		1.24		mg/kg dry	☼	08/08/14 11:53	08/12/14 12:15	1.00

Client Sample ID: NHMW-4 (12-13')

Lab Sample ID: SXH0034-09

Date Collected: 08/05/14 16:00
Matrix: Soil
Date Received: 08/07/14 10:45
Percent Solids: 94.9

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0347		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
Benzene	ND		0.0174		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
Toluene	ND		0.116		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
Ethylbenzene	ND		0.116		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
m,p-Xylene	ND		0.463		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
o-Xylene	ND		0.232		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
1,2-Dichloroethane (EDC)	ND		0.116		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00
Xylenes (total)	ND		0.695		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00

Client Sample ID: NHMW-4 (12-13')
Date Collected: 08/05/14 16:00
Date Received: 08/07/14 10:45

Lab Sample ID: SXH0034-09
Matrix: Soil
Percent Solids: 94.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*99.6*		*80 - 120*	*08/11/14 08:02*	*08/11/14 15:44*	*1.00*
1,2-dichloroethane-d4	*98.4*		*74.7 - 120*	*08/11/14 08:02*	*08/11/14 15:44*	*1.00*
Toluene-d8	*102*		*78.5 - 125*	*08/11/14 08:02*	*08/11/14 15:44*	*1.00*
4-bromofluorobenzene	*97.9*		*69.8 - 140*	*08/11/14 08:02*	*08/11/14 15:44*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.79		mg/kg dry	☼	08/11/14 08:02	08/11/14 15:44	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-bromofluorobenzene	*97.9*		*41.5 - 162*	*08/11/14 08:02*	*08/11/14 15:44*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.801		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:47	1.00
1,2-Dibromo-3-chloropropane	ND		0.801		ug/kg dry	☼	08/07/14 13:48	08/11/14 15:47	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
2-Methylnaphthalene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
1-Methylnaphthalene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Acenaphthylene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Acenaphthene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Fluorene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Phenanthrene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Anthracene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Fluoranthene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Pyrene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Benzo (a) anthracene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Chrysene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Benzo (b) fluoranthene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Benzo (k) fluoranthene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Benzo (a) pyrene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Dibenzo (a,h) anthracene	ND		0.0125		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00
Benzo (ghi) perylene	ND		0.0208		mg/kg dry	☼	08/11/14 08:31	08/11/14 21:38	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*126*		*36.3 - 152*	*08/11/14 08:31*	*08/11/14 21:38*	*1.00*
2-FBP	*105*		*30.2 - 135*	*08/11/14 08:31*	*08/11/14 21:38*	*1.00*
p-Terphenyl-d14	*102*		*65.1 - 134*	*08/11/14 08:31*	*08/11/14 21:38*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		9.97		mg/kg dry	☼	08/08/14 09:07	08/11/14 13:31	1.00
Heavy Oil Range Hydrocarbons	ND		24.9		mg/kg dry	☼	08/08/14 09:07	08/11/14 13:31	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*96.9*		*50 - 150*	*08/08/14 09:07*	*08/11/14 13:31*	*1.00*
n-Triacontane-d62	*88.7*		*50 - 150*	*08/08/14 09:07*	*08/11/14 13:31*	*1.00*

Client Sample ID: NHMW-4 (12-13')

Lab Sample ID: SXH0034-09

Date Collected: 08/05/14 16:00

Matrix: Soil

Date Received: 08/07/14 10:45

Percent Solids: 94.9

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.94		1.16		mg/kg dry	☼	08/08/14 11:53	08/12/14 12:19	1.00

Client Sample ID: NHMW-5 (14-15')

Lab Sample ID: SXH0034-11

Date Collected: 08/05/14 14:25

Matrix: Soil

Date Received: 08/07/14 10:45

Percent Solids: 96.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0301		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
Benzene	ND		0.0150		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
Toluene	ND		0.100		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
Ethylbenzene	ND		0.100		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
m,p-Xylene	ND		0.401		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
o-Xylene	ND		0.200		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00
Xylenes (total)	ND		0.601		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*80 - 120*	*08/11/14 08:02*	*08/11/14 16:07*	*1.00*
1,2-dichloroethane-d4	*102*		*74.7 - 120*	*08/11/14 08:02*	*08/11/14 16:07*	*1.00*
Toluene-d8	*102*		*78.5 - 125*	*08/11/14 08:02*	*08/11/14 16:07*	*1.00*
4-bromofluorobenzene	*100*		*69.8 - 140*	*08/11/14 08:02*	*08/11/14 16:07*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.01		mg/kg dry	☼	08/11/14 08:02	08/11/14 16:07	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*100*		*41.5 - 162*	*08/11/14 08:02*	*08/11/14 16:07*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.993		ug/kg dry	☼	08/07/14 13:48	08/11/14 16:02	1.00
1,2-Dibromo-3-chloropropane	ND		0.993		ug/kg dry	☼	08/07/14 13:48	08/11/14 16:02	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
2-Methylnaphthalene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
1-Methylnaphthalene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Acenaphthylene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Acenaphthene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Fluorene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Phenanthrene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Anthracene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Fluoranthene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Pyrene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Benzo (a) anthracene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Chrysene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Benzo (b) fluoranthene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Benzo (k) fluoranthene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Client Sample ID: NHMW-5 (14-15')
Date Collected: 08/05/14 14:25
Date Received: 08/07/14 10:45

Lab Sample ID: SXH0034-11
Matrix: Soil
Percent Solids: 96.8

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo (a) pyrene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Dibenzo (a,h) anthracene	ND		0.0114		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00
Benzo (ghi) perylene	ND		0.0190		mg/kg dry	☼	08/11/14 08:31	08/11/14 22:00	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*132*		*36.3 - 152*	*08/11/14 08:31*	*08/11/14 22:00*	*1.00*
2-FBP	*105*		*30.2 - 135*	*08/11/14 08:31*	*08/11/14 22:00*	*1.00*
p-Terphenyl-d14	*105*		*65.1 - 134*	*08/11/14 08:31*	*08/11/14 22:00*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		9.41		mg/kg dry	☼	08/08/14 09:07	08/11/14 13:55	1.00
Heavy Oil Range Hydrocarbons	ND		23.5		mg/kg dry	☼	08/08/14 09:07	08/11/14 13:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93.5*		*50 - 150*	*08/08/14 09:07*	*08/11/14 13:55*	*1.00*
n-Triacontane-d62	*87.1*		*50 - 150*	*08/08/14 09:07*	*08/11/14 13:55*	*1.00*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**1.58**		1.25		mg/kg dry	☼	08/08/14 11:53	08/12/14 12:23	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14H0031-BLK1
Matrix: Soil
Analysis Batch: 14H0031

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0031_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
Benzene	ND		0.0150		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
Toluene	ND		0.100		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
Ethylbenzene	ND		0.100		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
m,p-Xylene	ND		0.400		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
o-Xylene	ND		0.200		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00
Xylenes (total)	ND		0.600		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*80 - 120*	*08/11/14 08:02*	*08/11/14 11:19*	*1.00*
1,2-dichloroethane-d4	*99.7*		*74.7 - 120*	*08/11/14 08:02*	*08/11/14 11:19*	*1.00*
Toluene-d8	*103*		*78.5 - 125*	*08/11/14 08:02*	*08/11/14 11:19*	*1.00*
4-bromofluorobenzene	*100*		*69.8 - 140*	*08/11/14 08:02*	*08/11/14 11:19*	*1.00*
a,a,a - Trifluorotoluene	*109*		*50 - 150*	*08/11/14 08:02*	*08/11/14 11:19*	*1.00*

Lab Sample ID: 14H0031-BS1
Matrix: Soil
Analysis Batch: 14H0031

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0031_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.543		mg/kg wet		109	60 - 140
Benzene	0.500	0.540		mg/kg wet		108	75.8 - 123
Toluene	0.500	0.544		mg/kg wet		109	76.6 - 125
Ethylbenzene	0.500	0.538		mg/kg wet		108	77.3 - 121
m,p-Xylene	0.500	0.532		mg/kg wet		106	77.7 - 124
o-Xylene	0.500	0.558		mg/kg wet		112	76.7 - 129
Naphthalene	0.500	0.425		mg/kg wet		85.0	55.1 - 142
1,2-Dichloroethane (EDC)	0.500	0.558		mg/kg wet		112	71.1 - 142
1,2-Dibromoethane	0.500	0.568		mg/kg wet		114	77.1 - 129
Xylenes (total)	1.00	1.09		mg/kg wet		109	76.5 - 124
Hexane	0.500	0.551		mg/kg wet		110	77 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*101*		*80 - 120*
1,2-dichloroethane-d4	*103*		*74.7 - 120*
Toluene-d8	*103*		*78.5 - 125*
4-bromofluorobenzene	*97.3*		*69.8 - 140*
a,a,a - Trifluorotoluene	*108*		*60 - 120*

Lab Sample ID: 14H0031-BSD1
Matrix: Soil
Analysis Batch: 14H0031

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14H0031_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	0.500	0.466		mg/kg wet		93.1	60 - 140	15.4	25
Benzene	0.500	0.438		mg/kg wet		87.7	75.8 - 123	20.7	25

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14H0031-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0031 — **Prep Batch: 14H0031_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.500	0.440		mg/kg wet		88.0	76.6 - 125	21.2	25
Ethylbenzene			0.500	0.436		mg/kg wet		87.1	77.3 - 121	21.1	25
m,p-Xylene			0.500	0.434		mg/kg wet		86.9	77.7 - 124	20.2	25
o-Xylene			0.500	0.454		mg/kg wet		90.7	76.7 - 129	20.7	25
Naphthalene			0.500	0.391		mg/kg wet		78.2	55.1 - 142	8.33	25
1,2-Dichloroethane (EDC)			0.500	0.468		mg/kg wet		93.7	71.1 - 142	17.4	25
1,2-Dibromoethane			0.500	0.485		mg/kg wet		97.0	77.1 - 129	15.9	25
Xylenes (total)			1.00	0.888		mg/kg wet		88.8	76.5 - 124	20.4	25
Hexane			0.500	0.448		mg/kg wet		89.5	77 - 130	20.7	25

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*101*		*80 - 120*
1,2-dichloroethane-d4	*102*		*74.7 - 120*
Toluene-d8	*101*		*78.5 - 125*
4-bromofluorobenzene	*98.1*		*69.8 - 140*
a,a,a - Trifluorotoluene	*101*		*60 - 120*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 14H0031-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0031 — **Prep Batch: 14H0031_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		08/11/14 08:02	08/11/14 11:19	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-bromofluorobenzene	*100*		*41.5 - 162*	*08/11/14 08:02*	*08/11/14 11:19*	*1.00*

Lab Sample ID: 14H0031-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0031 — **Prep Batch: 14H0031_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons			50.0	54.3		mg/kg wet		109	74.4 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-bromofluorobenzene	*101*		*41.5 - 162*

Lab Sample ID: 14H0031-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0031 — **Prep Batch: 14H0031_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			50.0	50.5		mg/kg wet		101	74.4 - 124	7.22	20

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx (Continued)

Lab Sample ID: 14H0031-BSD2
Matrix: Soil
Analysis Batch: 14H0031

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14H0031_P

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
4-bromofluorobenzene	*100*		*41.5 - 162*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14H0023-BLK1
Matrix: Soil
Analysis Batch: 14H0023

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0023_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		08/07/14 13:48	08/11/14 14:50	1.00
1,2-Dibromo-3-chloropropane	ND		1.00		ug/kg wet		08/07/14 13:48	08/11/14 14:50	1.00

Lab Sample ID: 14H0023-BS1
Matrix: Soil
Analysis Batch: 14H0023

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0023_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	3.95		ug/kg wet		79.0	60 - 140
1,2-Dibromo-3-chloropropane	5.00	6.54		ug/kg wet		131	60 - 140

Lab Sample ID: 14H0023-BS2
Matrix: Soil
Analysis Batch: 14H0023

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0023_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	5.00	5.31		ug/kg wet		106	60 - 140
1,2-Dibromo-3-chloropropane	5.00	5.95		ug/kg wet		119	60 - 140

Lab Sample ID: 14H0023-MS1
Matrix: Soil
Analysis Batch: 14H0023

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 14H0023_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	ND		6.00	5.12		ug/kg dry	☼	85.4	60 - 140
1,2-Dibromo-3-chloropropane	ND		6.00	5.18		ug/kg dry	☼	86.3	60 - 140

Lab Sample ID: 14H0023-MSD1
Matrix: Soil
Analysis Batch: 14H0023

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 14H0023_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		5.97	5.30		ug/kg dry	☼	88.8	60 - 140	3.47	20
1,2-Dibromo-3-chloropropane	ND		5.97	5.20		ug/kg dry	☼	87.0	60 - 140	0.446	20

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14H0032-BLK1
Matrix: Soil
Analysis Batch: 14H0032

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14H0032_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Acenaphthene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Fluorene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Phenanthrene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Anthracene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Fluoranthene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Pyrene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Chrysene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Dibenzo (a,h) anthracene	ND		0.00600		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		08/11/14 08:31	08/11/14 14:27	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*121*		*36.3 - 152*	*08/11/14 08:31*	*08/11/14 14:27*	*1.00*
2-FBP	*104*		*30.2 - 135*	*08/11/14 08:31*	*08/11/14 14:27*	*1.00*
p-Terphenyl-d14	*104*		*65.1 - 134*	*08/11/14 08:31*	*08/11/14 14:27*	*1.00*

Lab Sample ID: 14H0032-BS1
Matrix: Soil
Analysis Batch: 14H0032

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14H0032_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			0.133	0.111		mg/kg wet		83.5	62.7 - 120		
Fluorene			0.133	0.133		mg/kg wet		100	67.9 - 124		
Chrysene			0.133	0.118		mg/kg wet		88.5	68.2 - 132		
Indeno (1,2,3-cd) pyrene			0.133	0.117		mg/kg wet		88.0	52.6 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*102*		*36.3 - 152*
2-FBP	*98.2*		*30.2 - 135*
p-Terphenyl-d14	*98.0*		*65.1 - 134*

Lab Sample ID: 14H0032-BSD1
Matrix: Soil
Analysis Batch: 14H0032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14H0032_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			0.133	0.120		mg/kg wet		90.0	62.7 - 120	7.49	35
Fluorene			0.133	0.151		mg/kg wet		114	67.9 - 124	12.6	35
Chrysene			0.133	0.136		mg/kg wet		102	68.2 - 132	14.2	35

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14H0032-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0032 — **Prep Batch: 14H0032_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Indeno (1,2,3-cd) pyrene			0.133	0.135		mg/kg wet		101	52.6 - 149	13.8	35

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Nitrobenzene-d5	*79.0*		*36.3 - 152*
2-FBP	*92.8*		*30.2 - 135*
p-Terphenyl-d14	*103*		*65.1 - 134*

Lab Sample ID: 14H0032-MS1 — **Client Sample ID: NHMW-5 (14-15')**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0032 — **Prep Batch: 14H0032_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	ND		0.275	0.238		mg/kg dry	☼	86.5	30 - 120
Fluorene	ND		0.275	0.292		mg/kg dry	☼	106	30 - 140
Chrysene	ND		0.275	0.259		mg/kg dry	☼	94.0	30 - 133
Indeno (1,2,3-cd) pyrene	ND		0.275	0.293		mg/kg dry	☼	106	30 - 140

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*114*		*36.3 - 152*
2-FBP	*99.2*		*30.2 - 135*
p-Terphenyl-d14	*98.6*		*65.1 - 134*

Lab Sample ID: 14H0032-MSD1 — **Client Sample ID: NHMW-5 (14-15')**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0032 — **Prep Batch: 14H0032_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		0.259	0.206		mg/kg dry	☼	79.5	30 - 120	14.7	35
Fluorene	ND		0.259	0.269		mg/kg dry	☼	104	30 - 140	8.16	35
Chrysene	ND		0.259	0.233		mg/kg dry	☼	90.0	30 - 133	10.6	35
Indeno (1,2,3-cd) pyrene	ND		0.259	0.260		mg/kg dry	☼	100	30 - 140	12.0	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*123*		*36.3 - 152*
2-FBP	*98.4*		*30.2 - 135*
p-Terphenyl-d14	*97.8*		*65.1 - 134*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14H0027-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0027 — **Prep Batch: 14H0027_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		10.0		mg/kg wet		08/08/14 09:07	08/11/14 11:33	1.00
Heavy Oil Range Hydrocarbons	ND		25.0		mg/kg wet		08/08/14 09:07	08/11/14 11:33	1.00

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 14H0027-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0027 — **Prep Batch: 14H0027_P**

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94.2		50 - 150	08/08/14 09:07	08/11/14 11:33	1.00
n-Triacontane-d62	87.3		50 - 150	08/08/14 09:07	08/11/14 11:33	1.00

Lab Sample ID: 14H0027-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0027 — **Prep Batch: 14H0027_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons	66.7	53.5		mg/kg wet		80.3	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	96.9		50 - 150
n-Triacontane-d62	87.3		50 - 150

Lab Sample ID: 14H0027-DUP1 — **Client Sample ID: NHMW-2 (14-15')**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0027 — **Prep Batch: 14H0027_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Hydrocarbons	33.1	Q6	40.2		mg/kg dry	☼	19.5	40
Heavy Oil Range Hydrocarbons	145	Q6	192		mg/kg dry	☼	28.2	40

Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits
o-Terphenyl	96.3		50 - 150
n-Triacontane-d62	84.3		50 - 150

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Lab Sample ID: 14H0029-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.25		mg/kg wet		08/08/14 11:53	08/11/14 18:43	1.00

Lab Sample ID: 14H0029-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	51.5		mg/kg wet		103	80 - 120

Lab Sample ID: 14H0029-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14H0029 — **Prep Batch: 14H0029_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	3.15		51.7	54.7		mg/kg dry	☼	99.6	75 - 125

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B (Continued)

Lab Sample ID: 14H0029-MSD1
Matrix: Soil
Analysis Batch: 14H0029

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 14H0029_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	3.15		55.5	60.0		mg/kg dry	☼	102	75 - 125	9.25	20

Lab Sample ID: 14H0029-DUP1
Matrix: Soil
Analysis Batch: 14H0029

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14H0029_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Lead	3.15			3.53		mg/kg dry	☼			11.3	20

Client Sample ID: NHMW-2 (14-15')

Lab Sample ID: SXH0034-03

Date Collected: 08/05/14 08:20

Matrix: Soil

Date Received: 08/07/14 10:45

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.855	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0031	08/11/14 14:59	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.855	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0031	08/11/14 14:59	CBW	TAL SPK
Total	Prep	EPA 3580		0.959	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 15:18	NMI	TAL SPK
Total	Prep	EPA 3550B		1.99	14H0032_P	08/11/14 08:31	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0032	08/11/14 20:53	NMI	TAL SPK
Total	Prep	EPA 3550B		0.948	14H0027_P	08/08/14 09:07	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0027	08/11/14 12:44	NMI	TAL SPK
Total	Prep	EPA 3050B		0.952	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		2.00	14H0029	08/12/14 12:11	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	14H0040_P	08/07/14 15:01	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14H0040	08/12/14 09:08	NI	TAL SPK

Client Sample ID: NHMW-3 (8-9')

Lab Sample ID: SXH0034-05

Date Collected: 08/05/14 09:20

Matrix: Soil

Date Received: 08/07/14 10:45

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.942	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0031	08/11/14 15:22	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.942	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0031	08/11/14 15:22	CBW	TAL SPK
Total	Prep	EPA 3580		0.978	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 15:33	NMI	TAL SPK
Total	Prep	EPA 3550B		1.94	14H0032_P	08/11/14 08:31	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0032	08/11/14 21:15	NMI	TAL SPK
Total	Prep	EPA 3550B		0.928	14H0027_P	08/08/14 09:07	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0027	08/11/14 13:08	NMI	TAL SPK
Total	Prep	EPA 3050B		0.935	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 12:15	ICP	TAL SPK

Client Sample ID: NHMW-4 (12-13')

Lab Sample ID: SXH0034-09

Date Collected: 08/05/14 16:00

Matrix: Soil

Date Received: 08/07/14 10:45

Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.05	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0031	08/11/14 15:44	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.05	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0031	08/11/14 15:44	CBW	TAL SPK
Total	Prep	EPA 3580		0.760	14H0023_P	08/07/14 13:48	MS	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Client Sample ID: NHMW-4 (12-13')

Lab Sample ID: SXH0034-09

Date Collected: 08/05/14 16:00
Matrix: Soil
Date Received: 08/07/14 10:45
Percent Solids: 94.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 15:47	NMI	TAL SPK
Total	Prep	EPA 3550B		1.97	14H0032_P	08/11/14 08:31	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0032	08/11/14 21:38	NMI	TAL SPK
Total	Prep	EPA 3550B		0.946	14H0027_P	08/08/14 09:07	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0027	08/11/14 13:31	NMI	TAL SPK
Total	Prep	EPA 3050B		0.877	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 12:19	ICP	TAL SPK

Client Sample ID: NHMW-5 (14-15')

Lab Sample ID: SXH0034-11

Date Collected: 08/05/14 14:25
Matrix: Soil
Date Received: 08/07/14 10:45
Percent Solids: 96.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.938	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14H0031	08/11/14 16:07	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.938	14H0031_P	08/11/14 08:02	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14H0031	08/11/14 16:07	CBW	TAL SPK
Total	Prep	EPA 3580		0.962	14H0023_P	08/07/14 13:48	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14H0023	08/11/14 16:02	NMI	TAL SPK
Total	Prep	EPA 3550B		1.84	14H0032_P	08/11/14 08:31	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14H0032	08/11/14 22:00	NMI	TAL SPK
Total	Prep	EPA 3550B		0.911	14H0027_P	08/08/14 09:07	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14H0027	08/11/14 13:55	NMI	TAL SPK
Total	Prep	EPA 3050B		0.971	14H0029_P	08/08/14 11:53	MS	TAL SPK
Total	Analysis	EPA 6010C		1.00	14H0029	08/12/14 12:23	ICP	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXH0034

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXH0034

CLIENT:

REPORT TO: JR Sugalski
ADDRESS: 523 E. Second Ave., Spokane, WA 99202

PHONE: 509.363.3125 FAX:

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Tiger Oil - East Nob Hill

PROJECT NUMBER: 0504-101-00

SAMPLED BY: Aaron Freeberg

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: [10] STD. [7] [5] [4] [3] [2] [1] [<1]
Petroleum Hydrocarbon Analyses: [5] STD. [4] [3] [2] [1] [<1]
[OTHER] Specify:
* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	NWTPH-Dx	NWTPH-Gx	Naphthal-Enes 8270 SIM	EDB 8011	Pb 6010	BTEX 8260	EDC 8260	MTBE 8260	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	~~NHMW-1~~											S	2		
2	~~NHMW-1~~											S	2		
3	~~NHMW-1~~											S			
4	NHMW-2 (4-5')	8/5/14	0800									S	2	Hold	
5	NHMW-2 (9-10')	8/5/14	0810									S	2	Hold	
6	NHMW-2 (14-15)	8/5/14	0820	X	X	X	X	X	X	X	X	S	3		
7	NHMW-3 (5-6')	8/4/14	0915									S	2	Hold	
8	NHMW-3 (8-9')	8/4/14	0920	X	X	X	X	X	X	X	X	S	3		
9	NHMW-3 (15-16')	8/4/14	1040									S	2	Hold	
10	NHMW-4 (1-2)	8/4/14	1330									S	2	Hold	

PRESERVATIVE

REQUESTED ANALYSES

RELEASED BY: PRINT NAME: Aaron Freeberg FIRM: GEI DATE: 8/6/14 TIME: 1230

RECEIVED BY: PRINT NAME: Art Stapleton FIRM: TestAmerica DATE: 8/7/14 TIME: 10:45

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

TEMP: 2.4

PAGE 1 OF 2

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXH0034

CLIENT: GEOENGINEERS

INVOICE TO:

REPORT TO: JR SUKALSKI

ADDRESS: 523 E. SECOND AVE, SPOKANE, WA 99202

PHONE: 509 363 3125 FAX:

P.O. NUMBER:

PROJECT NAME: TIGER OIL - EAST NOB HILL

PROJECT NUMBER: 0504-401-00

SAMPLED BY: AARON FREDERICK

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [10] STD. [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [5] STD. [4] [3] [2] [1] [<1]

[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		PRESERVATIVE	REQUESTED ANALYSES: NWTPH-Dx	NWTPH-Gx	Naphthalene EDB's 8270	EDB 6011	Pb 6010	BTEX 8260	EDC 8260	MTBE 8260	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	NHMW-4 (7-8')	8/4/14	1345										S	2	HOLD	
2	NHMW-4 (12-13')	8/4/14	1600		X	X	X	X	X	X	X	X	S	3		
3	NHMW-5 (4-5')	8/5/14	1115										S	2	HOLD	
4	NHMW-5 (14-15')	8/5/14	1425		X	X	X	X	X	X	X	X	S	3		
5	~~NHMW-5 ( )~~												~~S~~			
6	~~DUPLICATE~~												S			
7																
8																
9																
10																

RELEASED BY: AARON FREDERICK DATE: 8/6/14

PRINT NAME: FIRM: GEI TIME: 1230

RECEIVED BY: Cat Stapleton DATE: 8-7-14

PRINT NAME: FIRM: TestAmerica TIME: 10:45

RELEASED BY: DATE:

PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:

PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 2.4

PAGE OF

TAL-1000 (0612)

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8/14/2014

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXH0034	Client: GeoEngineers	Project: Tiger Oil
Date/Time Received: 8-7-14 10:45	By: CS	

Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Client ☐ Other: _____

List Air Bill Number(s) or Attach a photocopy of the Air Bill: 7[illegible]

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	X			
Custody Seals are present and intact:			X	
Are CoC documents present:	X			
Necessary signatures:	X			

Thermal Preservation Type: ☐ Blue Ice ☐ Gel Ice ☒ Real Ice ☐ Dry Ice ☐ None ☐ Other: _____

Temperature: 2.4 °C Thermometer (Circle one Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐ Not enough ice ☐ Ice melted ☐ w/in 4hrs of collection ☐ NA ☐ Other: _____

Log-In Phase Date/Time: 8-7-14 11:32 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)	Y			
Are dissolved parameters field filtered			Y	
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis			Y	
Are there any short hold time tests (see chart below)		Y		
Are any samples within 2 days of or past expiration		Y		
Was the CoC scanned	Y			
Were there Non-conformance issues at login		Y		
If yes, was a CAR generated # _____			Y	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SXF0094
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - E Nob Hill

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: JR Sugalski

Authorized for release by:
6/27/2014 4:43:12 PM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXF0094-03	NHTP-1(9)	Soil	06/12/14 09:05	06/13/14 13:40
SXF0094-08	NHTP-2(13.5)	Soil	06/12/14 10:15	06/13/14 13:40
SXF0094-10	NHTP-3(10)	Soil	06/12/14 11:05	06/13/14 13:40
SXF0094-14	NHTP-4(13)	Soil	06/12/14 14:00	06/13/14 13:40
SXF0094-15	NHTP-6(3)	Soil	06/12/14 14:40	06/13/14 13:40
SXF0094-21	NHTP-5(14)	Soil	06/12/14 16:10	06/13/14 13:40

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Qualifiers

Fuels

Qualifier	Qualifier Description
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
Q6	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
Q9	Hydrocarbon pattern most closely resembles heavily weathered diesel and/or a light weight oil..

Metals

Qualifier	Qualifier Description
RL3	Reporting limit raised due to high concentrations of non-target analytes.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Client Sample ID: NHTP-1(9)
Date Collected: 06/12/14 09:05
Date Received: 06/13/14 13:40

Lab Sample ID: SXF0094-03
Matrix: Soil
Percent Solids: 94.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0337		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
Benzene	ND		0.0168		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
Toluene	ND		0.112		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
Ethylbenzene	ND		0.112		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
m,p-Xylene	ND		0.449		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
o-Xylene	ND		0.225		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
1,2-Dichloroethane (EDC)	ND		0.112		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00
Xylenes (total)	ND		0.674		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.2*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*
1,2-dichloroethane-d4	*94.9*		*50 - 150*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*
Toluene-d8	*103*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*
4-bromofluorobenzene	*99.5*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.61		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.2*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*
Toluene-d8	*103*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*
4-bromofluorobenzene	*99.5*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 16:11*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.907		ug/kg dry	☼	06/16/14 10:39	06/23/14 16:42	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0151		mg/kg dry	☼	06/16/14 08:14	06/16/14 16:44	1.00
2-Methylnaphthalene	ND		0.0151		mg/kg dry	☼	06/16/14 08:14	06/16/14 16:44	1.00
1-Methylnaphthalene	ND		0.0151		mg/kg dry	☼	06/16/14 08:14	06/16/14 16:44	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70.4*		*36.3 - 152*	*06/16/14 08:14*	*06/16/14 16:44*	*1.00*
2-FBP	*81.2*		*30.2 - 135*	*06/16/14 08:14*	*06/16/14 16:44*	*1.00*
p-Terphenyl-d14	*104*		*65.1 - 134*	*06/16/14 08:14*	*06/16/14 16:44*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		18.5		mg/kg dry	☼	06/19/14 08:02	06/20/14 15:00	1.00
Heavy Oil Range Hydrocarbons	ND		46.2		mg/kg dry	☼	06/19/14 08:02	06/20/14 15:00	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*06/19/14 08:02*	*06/20/14 15:00*	*1.00*
n-Triacontane-d62	*97.2*		*50 - 150*	*06/19/14 08:02*	*06/20/14 15:00*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		35		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:51	1.0

Client Sample ID: NHTP-1(9)

Lab Sample ID: SXF0094-03

Date Collected: 06/12/14 09:05

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.8

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		88		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:51	1.0
Heavy Oil Range Hydrocarbons	ND		88		mg/kg dry	☼	06/16/14 10:43	06/16/14 20:51	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*93.1*		*50 - 150*	*06/16/14 10:43*	*06/16/14 20:51*	*1.0*
2-FBP	*93.6*		*50 - 150*	*06/16/14 10:43*	*06/16/14 20:51*	*1.0*
p-Terphenyl-d14	*90.1*		*50 - 150*	*06/16/14 10:43*	*06/16/14 20:51*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.96**		1.24		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:12	1.00

Client Sample ID: NHTP-2(13.5)

Lab Sample ID: SXF0094-08

Date Collected: 06/12/14 10:15

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 95.3

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0370		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
Benzene	ND		0.0185		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
Toluene	ND		0.123		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
Ethylbenzene	ND		0.123		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
m,p-Xylene	ND		0.493		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
o-Xylene	ND		0.247		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
1,2-Dichloroethane (EDC)	ND		0.123		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00
Xylenes (total)	ND		0.740		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*
1,2-dichloroethane-d4	*94.8*		*50 - 150*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*
Toluene-d8	*101*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*
4-bromofluorobenzene	*101*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		6.17		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:34	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*
Toluene-d8	*101*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*
4-bromofluorobenzene	*101*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 16:34*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.00941		ug/kg dry	☼	06/16/14 10:39	06/23/14 17:05	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/16/14 17:48	1.00
2-Methylnaphthalene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/16/14 17:48	1.00
1-Methylnaphthalene	ND		0.0198		mg/kg dry	☼	06/16/14 08:14	06/16/14 17:48	1.00

Client Sample ID: NHTP-2(13.5)

Lab Sample ID: SXF0094-08

Date Collected: 06/12/14 10:15

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 95.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*78.0*		*36.3 - 152*	*06/16/14 08:14*	*06/16/14 17:48*	*1.00*
2-FBP	*88.6*		*30.2 - 135*	*06/16/14 08:14*	*06/16/14 17:48*	*1.00*
p-Terphenyl-d14	*104*		*65.1 - 134*	*06/16/14 08:14*	*06/16/14 17:48*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		19.6		mg/kg dry	☼	06/19/14 08:02	06/20/14 15:23	1.00
Heavy Oil Range Hydrocarbons	ND		49.1		mg/kg dry	☼	06/19/14 08:02	06/20/14 15:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*06/19/14 08:02*	*06/20/14 15:23*	*1.00*
n-Triacontane-d62	*95.8*		*50 - 150*	*06/19/14 08:02*	*06/20/14 15:23*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		35		mg/kg dry	☼	06/16/14 10:43	06/16/14 21:15	1.0
Diesel Range Hydrocarbons	ND		88		mg/kg dry	☼	06/16/14 10:43	06/16/14 21:15	1.0
Heavy Oil Range Hydrocarbons	ND		88		mg/kg dry	☼	06/16/14 10:43	06/16/14 21:15	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*102*		*50 - 150*	*06/16/14 10:43*	*06/16/14 21:15*	*1.0*
2-FBP	*102*		*50 - 150*	*06/16/14 10:43*	*06/16/14 21:15*	*1.0*
p-Terphenyl-d14	*97.7*		*50 - 150*	*06/16/14 10:43*	*06/16/14 21:15*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.47**		1.30		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:16	1.00

Client Sample ID: NHTP-3(10)

Lab Sample ID: SXF0094-10

Date Collected: 06/12/14 11:05

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 95

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0306		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
Benzene	ND		0.0153		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
Toluene	ND		0.102		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
Ethylbenzene	ND		0.102		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
m,p-Xylene	ND		0.408		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
o-Xylene	ND		0.204		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
1,2-Dichloroethane (EDC)	ND		0.102		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00
Xylenes (total)	ND		0.612		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.0*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*
1,2-dichloroethane-d4	*93.8*		*50 - 150*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*
Toluene-d8	*103*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*
4-bromofluorobenzene	*98.6*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.10		mg/kg dry	☼	06/16/14 07:52	06/16/14 16:57	1.00

Client Sample ID: NHTP-3(10)

Lab Sample ID: SXF0094-10

Date Collected: 06/12/14 11:05

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 95

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.0*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*
Toluene-d8	*103*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*
4-bromofluorobenzene	*98.6*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 16:57*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.998		ug/kg dry	☼	06/16/14 10:39	06/23/14 17:28	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0170		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:10	1.00
2-Methylnaphthalene	ND		0.0170		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:10	1.00
1-Methylnaphthalene	ND		0.0170		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*71.0*		*36.3 - 152*	*06/16/14 08:14*	*06/16/14 18:10*	*1.00*
2-FBP	*82.2*		*30.2 - 135*	*06/16/14 08:14*	*06/16/14 18:10*	*1.00*
p-Terphenyl-d14	*103*		*65.1 - 134*	*06/16/14 08:14*	*06/16/14 18:10*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		16.3		mg/kg dry	☼	06/19/14 08:02	06/20/14 15:46	1.00
Heavy Oil Range Hydrocarbons	ND		40.7		mg/kg dry	☼	06/19/14 08:02	06/20/14 15:46	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*06/19/14 08:02*	*06/20/14 15:46*	*1.00*
n-Triacontane-d62	*96.1*		*50 - 150*	*06/19/14 08:02*	*06/20/14 15:46*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		33		mg/kg dry	☼	06/16/14 10:43	06/16/14 21:39	1.0
Diesel Range Hydrocarbons	ND		84		mg/kg dry	☼	06/16/14 10:43	06/16/14 21:39	1.0
Heavy Oil Range Hydrocarbons	ND		84		mg/kg dry	☼	06/16/14 10:43	06/16/14 21:39	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*102*		*50 - 150*	*06/16/14 10:43*	*06/16/14 21:39*	*1.0*
2-FBP	*101*		*50 - 150*	*06/16/14 10:43*	*06/16/14 21:39*	*1.0*
p-Terphenyl-d14	*97.9*		*50 - 150*	*06/16/14 10:43*	*06/16/14 21:39*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	RL3	2.27		mg/kg dry	☼	06/20/14 11:29	06/27/14 14:14	2.00

Client Sample ID: NHTP-4(13)

Lab Sample ID: SXF0094-14

Date Collected: 06/12/14 14:00

Matrix: Soil

Date Received: 06/13/14 13:40

Percent Solids: 94.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0353		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00
Benzene	ND		0.0177		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00
Toluene	ND		0.118		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Client Sample ID: NHTP-4(13)
Date Collected: 06/12/14 14:00
Date Received: 06/13/14 13:40

Lab Sample ID: SXF0094-14
Matrix: Soil
Percent Solids: 94.8

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.118		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00
m,p-Xylene	ND		0.471		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00
o-Xylene	ND		0.235		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00
1,2-Dichloroethane (EDC)	ND		0.118		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00
Xylenes (total)	ND		0.706		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.6*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*
1,2-dichloroethane-d4	*95.9*		*50 - 150*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*
Toluene-d8	*103*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*
4-bromofluorobenzene	*101*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**11.0**		5.89		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:19	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.6*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*
Toluene-d8	*103*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*
4-bromofluorobenzene	*101*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 17:19*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.879		ug/kg dry	☼	06/16/14 10:39	06/23/14 17:52	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0147		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:31	1.00
2-Methylnaphthalene	ND		0.0147		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:31	1.00
1-Methylnaphthalene	ND		0.0147		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*63.2*		*36.3 - 152*	*06/16/14 08:14*	*06/16/14 18:31*	*1.00*
2-FBP	*76.2*		*30.2 - 135*	*06/16/14 08:14*	*06/16/14 18:31*	*1.00*
p-Terphenyl-d14	*88.6*		*65.1 - 134*	*06/16/14 08:14*	*06/16/14 18:31*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**162**	**Q9**	18.9		mg/kg dry	☼	06/19/14 08:02	06/20/14 16:09	1.00
Heavy Oil Range Hydrocarbons	**93.9**		47.3		mg/kg dry	☼	06/19/14 08:02	06/20/14 16:09	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*105*		*50 - 150*	*06/19/14 08:02*	*06/20/14 16:09*	*1.00*
n-Triacontane-d62	*106*		*50 - 150*	*06/19/14 08:02*	*06/20/14 16:09*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		36		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:03	1.0
Diesel Range Hydrocarbons	**140**		89		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:03	1.0
Heavy Oil Range Hydrocarbons	**97**		89		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:03	1.0

Client Sample ID: NHTP-4(13)

Date Collected: 06/12/14 14:00
Date Received: 06/13/14 13:40

Lab Sample ID: SXF0094-14
Matrix: Soil
Percent Solids: 94.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	103		50 - 150	06/16/14 10:43	06/16/14 22:03	1.0
2-FBP	104		50 - 150	06/16/14 10:43	06/16/14 22:03	1.0
p-Terphenyl-d14	94.2		50 - 150	06/16/14 10:43	06/16/14 22:03	1.0

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.37		1.31		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:24	1.00

Client Sample ID: NHTP-6(3)

Date Collected: 06/12/14 14:40
Date Received: 06/13/14 13:40

Lab Sample ID: SXF0094-15
Matrix: Soil
Percent Solids: 88.9

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0291		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
Benzene	0.0189		0.0145		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
Toluene	ND		0.0969		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
Ethylbenzene	ND		0.0969		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
m,p-Xylene	ND		0.388		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
o-Xylene	ND		0.194		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
1,2-Dichloroethane (EDC)	ND		0.0969		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00
Xylenes (total)	ND		0.582		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.1		42.4 - 163	06/16/14 07:52	06/16/14 17:41	1.00
1,2-dichloroethane-d4	96.9		50 - 150	06/16/14 07:52	06/16/14 17:41	1.00
Toluene-d8	102		45.8 - 155	06/16/14 07:52	06/16/14 17:41	1.00
4-bromofluorobenzene	104		41.5 - 162	06/16/14 07:52	06/16/14 17:41	1.00

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		4.85		mg/kg dry	☼	06/16/14 07:52	06/16/14 17:41	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.1		42.4 - 163	06/16/14 07:52	06/16/14 17:41	1.00
Toluene-d8	102		45.8 - 155	06/16/14 07:52	06/16/14 17:41	1.00
4-bromofluorobenzene	104		41.5 - 162	06/16/14 07:52	06/16/14 17:41	1.00

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.02		ug/kg dry	☼	06/16/14 10:39	06/23/14 18:39	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0182		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:52	1.00
2-Methylnaphthalene	ND		0.0182		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:52	1.00
1-Methylnaphthalene	ND		0.0182		mg/kg dry	☼	06/16/14 08:14	06/16/14 18:52	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	63.6		36.3 - 152	06/16/14 08:14	06/16/14 18:52	1.00
2-FBP	81.8		30.2 - 135	06/16/14 08:14	06/16/14 18:52	1.00
p-Terphenyl-d14	92.6		65.1 - 134	06/16/14 08:14	06/16/14 18:52	1.00

Client Sample ID: NHTP-6(3)

Lab Sample ID: SXF0094-15

Date Collected: 06/12/14 14:40
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 88.9

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		22.0		mg/kg dry	☼	06/19/14 08:02	06/20/14 16:32	1.00
Heavy Oil Range Hydrocarbons	**122**		55.0		mg/kg dry	☼	06/19/14 08:02	06/20/14 16:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*06/19/14 08:02*	*06/20/14 16:32*	*1.00*
n-Triacontane-d62	*97.7*		*50 - 150*	*06/19/14 08:02*	*06/20/14 16:32*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:27	1.0
Diesel Range Hydrocarbons	ND		100		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:27	1.0
Heavy Oil Range Hydrocarbons	ND		100		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:27	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*102*		*50 - 150*	*06/16/14 10:43*	*06/16/14 22:27*	*1.0*
2-FBP	*104*		*50 - 150*	*06/16/14 10:43*	*06/16/14 22:27*	*1.0*
p-Terphenyl-d14	*100*		*50 - 150*	*06/16/14 10:43*	*06/16/14 22:27*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**89.8**		1.33		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:28	1.00

Client Sample ID: NHTP-5(14)

Lab Sample ID: SXF0094-21

Date Collected: 06/12/14 16:10
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 94.5

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0331		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
Benzene	ND		0.0166		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
Toluene	ND		0.110		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
Ethylbenzene	ND		0.110		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
m,p-Xylene	ND		0.442		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
o-Xylene	ND		0.221		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
1,2-Dichloroethane (EDC)	ND		0.110		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00
Xylenes (total)	ND		0.662		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*
1,2-dichloroethane-d4	*93.9*		*50 - 150*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*
Toluene-d8	*104*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*
4-bromofluorobenzene	*102*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.52		mg/kg dry	☼	06/16/14 07:52	06/16/14 18:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.5*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*
Toluene-d8	*104*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*
4-bromofluorobenzene	*102*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 18:04*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Client Sample ID: NHTP-5(14)
Date Collected: 06/12/14 16:10
Date Received: 06/13/14 13:40

Lab Sample ID: SXF0094-21
Matrix: Soil
Percent Solids: 94.5

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.901		ug/kg dry	☼	06/16/14 10:39	06/23/14 19:02	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0200		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:14	1.00
2-Methylnaphthalene	ND		0.0200		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:14	1.00
1-Methylnaphthalene	ND		0.0200		mg/kg dry	☼	06/16/14 08:14	06/16/14 19:14	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*74.6*		*36.3 - 152*	*06/16/14 08:14*	*06/16/14 19:14*	*1.00*
2-FBP	*86.6*		*30.2 - 135*	*06/16/14 08:14*	*06/16/14 19:14*	*1.00*
p-Terphenyl-d14	*103*		*65.1 - 134*	*06/16/14 08:14*	*06/16/14 19:14*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		20.0		mg/kg dry	☼	06/19/14 08:02	06/20/14 16:55	1.00
Heavy Oil Range Hydrocarbons	ND		49.9		mg/kg dry	☼	06/19/14 08:02	06/20/14 16:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98.8*		*50 - 150*	*06/19/14 08:02*	*06/20/14 16:55*	*1.00*
n-Triacontane-d62	*94.4*		*50 - 150*	*06/19/14 08:02*	*06/20/14 16:55*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		36		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:51	1.0
Diesel Range Hydrocarbons	ND		90		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:51	1.0
Heavy Oil Range Hydrocarbons	ND		90		mg/kg dry	☼	06/16/14 10:43	06/16/14 22:51	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*91.5*		*50 - 150*	*06/16/14 10:43*	*06/16/14 22:51*	*1.0*
2-FBP	*95.5*		*50 - 150*	*06/16/14 10:43*	*06/16/14 22:51*	*1.0*
p-Terphenyl-d14	*96.6*		*50 - 150*	*06/16/14 10:43*	*06/16/14 22:51*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.36**		1.30		mg/kg dry	☼	06/20/14 11:29	06/27/14 13:32	1.00

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14F0097-BLK1
Matrix: Soil
Analysis Batch: 14F0097

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14F0097_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.0300		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Benzene	ND		0.0150		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Toluene	ND		0.100		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Ethylbenzene	ND		0.100		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
m,p-Xylene	ND		0.400		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
o-Xylene	ND		0.200		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00
Xylenes (total)	ND		0.600		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*96.3*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*
1,2-dichloroethane-d4	*93.0*		*50 - 150*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*
Toluene-d8	*102*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*
a,a,a - Trifluorotoluene	*93.6*		*50 - 150*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*

Lab Sample ID: 14F0097-BS1
Matrix: Soil
Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14F0097_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl tert-butyl ether			0.500	0.516		mg/kg wet		103	79 - 127		
Benzene			0.500	0.493		mg/kg wet		98.6	75.9 - 123		
Toluene			0.500	0.521		mg/kg wet		104	77.3 - 126		
Ethylbenzene			0.500	0.485		mg/kg wet		97.0	80 - 120		
m,p-Xylene			0.500	0.500		mg/kg wet		100	80 - 120		
o-Xylene			0.500	0.502		mg/kg wet		100	80 - 120		
Naphthalene			0.500	0.508		mg/kg wet		102	58.8 - 130		
1,2-Dichloroethane (EDC)			0.500	0.536		mg/kg wet		107	60 - 140		
1,2-Dibromoethane			0.500	0.529		mg/kg wet		106	60 - 140		
Xylenes (total)			1.00	1.00		mg/kg wet		100	80 - 120		
Hexane			0.500	0.526		mg/kg wet		105	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*100*		*42.4 - 163*
1,2-dichloroethane-d4	*99.9*		*50 - 150*
Toluene-d8	*101*		*45.8 - 155*
4-bromofluorobenzene	*100*		*41.5 - 162*
a,a,a - Trifluorotoluene	*105*		*60 - 120*

Lab Sample ID: 14F0097-BSD1
Matrix: Soil
Analysis Batch: 14F0097

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14F0097_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			0.500	0.484		mg/kg wet		96.8	79 - 127	6.50	25
Benzene			0.500	0.453		mg/kg wet		90.6	75.9 - 123	8.46	25

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C (Continued)

Lab Sample ID: 14F0097-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0097 — **Prep Batch: 14F0097_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.500	0.475		mg/kg wet		95.0	77.3 - 126	9.24	25
Ethylbenzene			0.500	0.447		mg/kg wet		89.4	80 - 120	8.15	25
m,p-Xylene			0.500	0.456		mg/kg wet		91.1	80 - 120	9.41	25
o-Xylene			0.500	0.457		mg/kg wet		91.4	80 - 120	9.29	25
Naphthalene			0.500	0.502		mg/kg wet		100	58.8 - 130	0.990	25
1,2-Dichloroethane (EDC)			0.500	0.492		mg/kg wet		98.4	60 - 140	8.56	25
1,2-Dibromoethane			0.500	0.480		mg/kg wet		96.0	60 - 140	9.71	25
Xylenes (total)			1.00	0.912		mg/kg wet		91.2	80 - 120	9.35	25
Hexane			0.500	0.498		mg/kg wet		99.6	50 - 150	5.56	25

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*99.1*		*42.4 - 163*
1,2-dichloroethane-d4	*100*		*50 - 150*
Toluene-d8	*101*		*45.8 - 155*
4-bromofluorobenzene	*98.4*		*41.5 - 162*
a,a,a - Trifluorotoluene	*101*		*60 - 120*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 14F0097-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0097 — **Prep Batch: 14F0097_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		06/16/14 07:52	06/16/14 09:46	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*96.3*		*42.4 - 163*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*
Toluene-d8	*102*		*45.8 - 155*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*06/16/14 07:52*	*06/16/14 09:46*	*1.00*

Lab Sample ID: 14F0097-BS2 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0097 — **Prep Batch: 14F0097_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons			50.0	53.1		mg/kg wet		106	74.4 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*99.5*		*42.4 - 163*
Toluene-d8	*103*		*45.8 - 155*
4-bromofluorobenzene	*100*		*41.5 - 162*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx (Continued)

Lab Sample ID: 14F0097-BSD2 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0097 — **Prep Batch: 14F0097_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			50.0	49.6		mg/kg wet		99.2	74.4 - 124	6.72	20

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*97.6*		*42.4 - 163*
Toluene-d8	*103*		*45.8 - 155*
4-bromofluorobenzene	*101*		*41.5 - 162*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14F0102-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0102 — **Prep Batch: 14F0102_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		06/16/14 10:39	06/23/14 14:22	1.00
1,2-Dibromo-3-chloropropane	ND		1.00		ug/kg wet		06/16/14 10:39	06/23/14 14:22	1.00

Lab Sample ID: 14F0102-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0102 — **Prep Batch: 14F0102_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane			5.00	6.19		ug/kg wet		124	60 - 140		
1,2-Dibromo-3-chloropropane			5.00	5.36		ug/kg wet		107	60 - 140		

Lab Sample ID: 14F0102-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0102 — **Prep Batch: 14F0102_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane	ND		4.57	5.15		ug/kg dry	☼	113	60 - 140		
1,2-Dibromo-3-chloropropane	ND		4.57	4.06		ug/kg dry	☼	88.8	60 - 140		

Lab Sample ID: 14F0102-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0102 — **Prep Batch: 14F0102_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		4.83	5.18		ug/kg dry	☼	107	60 - 140	0.551	20
1,2-Dibromo-3-chloropropane	ND		4.83	3.94		ug/kg dry	☼	81.6	60 - 140	2.80	20

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14F0098-BLK1
Matrix: Soil
Analysis Batch: 14F0098

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14F0098_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Acenaphthylene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Acenaphthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Fluorene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Phenanthrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Anthracene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Fluoranthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Pyrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (a) anthracene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Chrysene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (b) fluoranthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (k) fluoranthene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (a) pyrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Dibenzo (a,h) anthracene	ND		0.00600		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00
Benzo (ghi) perylene	ND		0.0100		mg/kg wet		06/16/14 08:14	06/16/14 10:12	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*89.0*		*36.3 - 152*	*06/16/14 08:14*	*06/16/14 10:12*	*1.00*
2-FBP	*88.0*		*30.2 - 135*	*06/16/14 08:14*	*06/16/14 10:12*	*1.00*
p-Terphenyl-d14	*110*		*65.1 - 134*	*06/16/14 08:14*	*06/16/14 10:12*	*1.00*

Lab Sample ID: 14F0098-BS1
Matrix: Soil
Analysis Batch: 14F0098

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14F0098_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			0.133	0.145		mg/kg wet		109	62.7 - 120		
Fluorene			0.133	0.146		mg/kg wet		110	67.9 - 124		
Chrysene			0.133	0.153		mg/kg wet		115	68.2 - 132		
Indeno (1,2,3-cd) pyrene			0.133	0.172		mg/kg wet		129	52.6 - 149		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*81.0*		*36.3 - 152*
2-FBP	*86.0*		*30.2 - 135*
p-Terphenyl-d14	*102*		*65.1 - 134*

Lab Sample ID: 14F0098-BSD1
Matrix: Soil
Analysis Batch: 14F0098

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 14F0098_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene			0.133	0.133		mg/kg wet		100	62.7 - 120	8.15	35
Fluorene			0.133	0.134		mg/kg wet		100	67.9 - 124	8.57	35
Chrysene			0.133	0.141		mg/kg wet		106	68.2 - 132	8.14	35

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring (Continued)

Lab Sample ID: 14F0098-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0098 — **Prep Batch: 14F0098_P**

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Indeno (1,2,3-cd) pyrene			0.133	0.167		mg/kg wet		126	52.6 - 149	2.75	35

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
Nitrobenzene-d5	*81.8*		*36.3 - 152*
2-FBP	*87.2*		*30.2 - 135*
p-Terphenyl-d14	*99.4*		*65.1 - 134*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14F0124-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0124 — **Prep Batch: 14F0124_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		20.0		mg/kg wet		06/19/14 08:02	06/19/14 15:13	1.00
Heavy Oil Range Hydrocarbons	ND		50.0		mg/kg wet		06/19/14 08:02	06/19/14 15:13	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92.5*		*50 - 150*	*06/19/14 08:02*	*06/19/14 15:13*	*1.00*
n-Triacontane-d62	*88.2*		*50 - 150*	*06/19/14 08:02*	*06/19/14 15:13*	*1.00*

Lab Sample ID: 14F0124-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0124 — **Prep Batch: 14F0124_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Hydrocarbons			66.7	58.3		mg/kg wet		87.5	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*99.5*		*50 - 150*
n-Triacontane-d62	*91.2*		*50 - 150*

Lab Sample ID: 14F0124-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0124 — **Prep Batch: 14F0124_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	545			442	Q6	mg/kg dry	☼			20.8	40
Heavy Oil Range Hydrocarbons	2040			1680		mg/kg dry	☼			19.3	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*107*		*50 - 150*
n-Triacontane-d62	*92.6*		*50 - 150*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx (Continued)

Lab Sample ID: 14F0124-DUP2 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0124 — **Prep Batch: 14F0124_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	1330			1520	Q6	mg/kg dry	☼			13.1	40
Heavy Oil Range Hydrocarbons	5210			6080		mg/kg dry	☼			15.5	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*90.1*		*50 - 150*
n-Triacontane-d62	*95.8*		*50 - 150*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Lab Sample ID: 14F0103-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0103 — **Prep Batch: 14F0103_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		06/16/14 10:43	06/16/14 17:38	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		06/16/14 10:43	06/16/14 17:38	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		06/16/14 10:43	06/16/14 17:38	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*101*		*50 - 150*	*06/16/14 10:43*	*06/16/14 17:38*	*1.00*
2-FBP	*95.8*		*50 - 150*	*06/16/14 10:43*	*06/16/14 17:38*	*1.00*
p-Terphenyl-d14	*93.9*		*50 - 150*	*06/16/14 10:43*	*06/16/14 17:38*	*1.00*

Lab Sample ID: 14F0103-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0103 — **Prep Batch: 14F0103_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	8.44			8.41		mg/kg dry	☼			0.378	25
Diesel Range Hydrocarbons	86.7			131	R4	mg/kg dry	☼			40.9	25
Heavy Oil Range Hydrocarbons	206			211		mg/kg dry	☼			2.70	25

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*92.7*		*50 - 150*
2-FBP	*100*		*50 - 150*
p-Terphenyl-d14	*92.9*		*50 - 150*

Lab Sample ID: 14F0103-DUP2 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14F0103 — **Prep Batch: 14F0103_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	7.11			6.65		mg/kg dry	☼			6.76	25
Diesel Range Hydrocarbons	25.4			14.7	R4	mg/kg dry	☼			53.4	25
Heavy Oil Range Hydrocarbons	170			95.8	R4	mg/kg dry	☼			56.1	25

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Lab Sample ID: 14F0103-DUP2
Matrix: Soil
Analysis Batch: 14F0103

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14F0103_P

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*98.2*		*50 - 150*
2-FBP	*101*		*50 - 150*
p-Terphenyl-d14	*91.9*		*50 - 150*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Lab Sample ID: 14F0138-BLK1
Matrix: Soil
Analysis Batch: 14F0138

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14F0138_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.25		mg/kg wet		06/20/14 11:29	06/27/14 12:21	1.00

Lab Sample ID: 14F0138-BS1
Matrix: Soil
Analysis Batch: 14F0138

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14F0138_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			50.0	49.7		mg/kg wet		99.3	80 - 120		

Lab Sample ID: 14F0138-MS1
Matrix: Soil
Analysis Batch: 14F0138

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 14F0138_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	94.1		55.5	150		mg/kg dry	☼	101	75 - 125		

Lab Sample ID: 14F0138-MSD1
Matrix: Soil
Analysis Batch: 14F0138

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 14F0138_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	94.1		49.8	146		mg/kg dry	☼	104	75 - 125	3.09	20

Lab Sample ID: 14F0138-DUP1
Matrix: Soil
Analysis Batch: 14F0138

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14F0138_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Lead	94.1			90.4		mg/kg dry	☼			3.94	20

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Client Sample ID: NHTP-1(9)

Lab Sample ID: SXF0094-03

Date Collected: 06/12/14 09:05
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.01	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 16:11	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.01	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 16:11	CBW	TAL SPK
Total	Prep	EPA 3580		0.860	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 16:42	NMI	TAL SPK
Total	Prep	EPA 3550B		1.44	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/16/14 16:44	MRS	TAL SPK
Total	Prep	EPA 3550B		0.876	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 15:00	MS	TAL SPK
Total	Prep	EPA 3580		0.83	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 20:51	MS	TAL SPK
Total	Prep	EPA 3050B		0.943	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 13:12	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	14F0105_P	06/16/14 15:55	NI	TAL SPK
Total	Analysis	TA SOP		1.00	14F0105	06/17/14 10:16	NI	TAL SPK

Client Sample ID: NHTP-2(13.5)

Lab Sample ID: SXF0094-08

Date Collected: 06/12/14 10:15
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 95.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.13	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 16:34	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.13	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 16:34	CBW	TAL SPK
Total	Prep	EPA 3580		0.00897	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 17:05	NMI	TAL SPK
Total	Prep	EPA 3550B		1.89	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/16/14 17:48	MRS	TAL SPK
Total	Prep	EPA 3550B		0.936	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 15:23	MS	TAL SPK
Total	Prep	EPA 3580		0.84	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 21:15	MS	TAL SPK
Total	Prep	EPA 3050B		0.990	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 13:16	ICP	TAL SPK

Client Sample ID: NHTP-3(10)

Lab Sample ID: SXF0094-10

Date Collected: 06/12/14 11:05
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 95

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.919	14F0097_P	06/16/14 07:52	CBW	TAL SPK

Client Sample ID: NHTP-3(10)

Lab Sample ID: SXF0094-10

Date Collected: 06/12/14 11:05
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 95

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 16:57	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.919	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 16:57	CBW	TAL SPK
Total	Prep	EPA 3580		0.948	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 17:28	NMI	TAL SPK
Total	Prep	EPA 3550B		1.62	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/16/14 18:10	MRS	TAL SPK
Total	Prep	EPA 3550B		0.774	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 15:46	MS	TAL SPK
Total	Prep	EPA 3580		0.79	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 21:39	MS	TAL SPK
Total	Prep	EPA 3050B		0.862	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		2.00	14F0138	06/27/14 14:14	ICP	TAL SPK

Client Sample ID: NHTP-4(13)

Lab Sample ID: SXF0094-14

Date Collected: 06/12/14 14:00
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.06	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 17:19	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.06	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 17:19	CBW	TAL SPK
Total	Prep	EPA 3580		0.833	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 17:52	NMI	TAL SPK
Total	Prep	EPA 3550B		1.40	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/16/14 18:31	MRS	TAL SPK
Total	Prep	EPA 3550B		0.897	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 16:09	MS	TAL SPK
Total	Prep	EPA 3580		0.84	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 22:03	MS	TAL SPK
Total	Prep	EPA 3050B		0.990	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 13:24	ICP	TAL SPK

Client Sample ID: NHTP-6(3)

Lab Sample ID: SXF0094-15

Date Collected: 06/12/14 14:40
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.751	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 17:41	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.751	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 17:41	CBW	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Client Sample ID: NHTP-6(3)

Lab Sample ID: SXF0094-15

Date Collected: 06/12/14 14:40
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3580		0.909	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 18:39	NMI	TAL SPK
Total	Prep	EPA 3550B		1.62	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/16/14 18:52	MRS	TAL SPK
Total	Prep	EPA 3550B		0.977	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 16:32	MS	TAL SPK
Total	Prep	EPA 3580		0.89	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 22:27	MS	TAL SPK
Total	Prep	EPA 3050B		0.943	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 13:28	ICP	TAL SPK

Client Sample ID: NHTP-5(14)

Lab Sample ID: SXF0094-21

Date Collected: 06/12/14 16:10
Matrix: Soil
Date Received: 06/13/14 13:40
Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.988	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14F0097	06/16/14 18:04	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.988	14F0097_P	06/16/14 07:52	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14F0097	06/16/14 18:04	CBW	TAL SPK
Total	Prep	EPA 3580		0.852	14F0102_P	06/16/14 10:39	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14F0102	06/23/14 19:02	NMI	TAL SPK
Total	Prep	EPA 3550B		1.89	14F0098_P	06/16/14 08:14	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14F0098	06/16/14 19:14	MRS	TAL SPK
Total	Prep	EPA 3550B		0.943	14F0124_P	06/19/14 08:02	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14F0124	06/20/14 16:55	MS	TAL SPK
Total	Prep	EPA 3580		0.85	14F0103_P	06/16/14 10:43	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14F0103	06/16/14 22:51	MS	TAL SPK
Total	Prep	EPA 3050B		0.980	14F0138_P	06/20/14 11:29	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14F0138	06/27/14 13:32	ICP	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXF0094

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-HCID	Hydrocarbon Identification by NWTPH-HCID		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290 [X]
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXF0094

CLIENT: GeoEngineers

REPORT TO: jsugaski@geoengineers.com

ADDRESS: 523 E Second Ave Spokane, WA 99202

PHONE: 509-363-3125 FAX: 509-363-3126

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Tiger 0.1 (E Nob Hill)

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [10] STD. [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [5] STD. [4] [3] [2] [1] [<1]

[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	NWTPH-Gx	NWTPH-Dx	ACID	BTEX	Naphthalene	EDB	EDC	MTBE	Pb (total)					MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 NHTP-1(3)	6/12/2014 0845															S	3		
2 NHTP-1(6)	0855																3		
3 NHTP-1(9)	0905		X	X	X	X	X	X	X	X	X						6		
4 NHTP-1(12)	0915																3		
5 NHTP-1(13.5)	0925																3		
6 NHTP-2(5)	0950																3		
7 NHTP-2(10)	1000																3		
8 NHTP-2(13.5)	1015		X	X	X	X	X	X	X	X	X						6		
9 NHTP-3(5)	1050																3		
10 NHTP-3(10)	1105		X	X	X	X	X	X	X	X	X					V	3		

RELEASED BY:		DATE: 6/13/2014	RECEIVED BY: Cat Stapleton		DATE: 6/13/14
PRINT NAME: Josh Lee	FIRM: Geo	TIME: 1340	PRINT NAME:	FIRM: TestAmerica	TIME: 13:40
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP: 29

PAGE 1 OF 3

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290 X
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXF0094

CLIENT: Geo Engineers

REPORT TO: jsugalski@geoengineers.com

ADDRESS: 523 E Second Ave Spokane, WA 99202

PHONE: FAX:

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Tiger 0.1 (E Nob Hill)

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	NWTPH-Gx	NWTPH-Dx	HCID	BTEX	Naphthalene	EDB	EDC	MTBE	PB (total)					MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	NHTP-3(13.5)	6/12/2014 1120															S	3		
2	NHTP-4(5)	1320																3		
3	NHTP-4(10)	1350																3		
4	NHTP-4(13)	1400		X	X	X	X	X	X	X	X	X						6		
5	NHTP-6(3)	1440		X	X	X	X	X	X	X	X	X						6		
6	NHTP-6(5)	1450																3		
7	NHTP-6(10)	1500																3		
8	NHTP-6(13.5)	1510																3		
9	NHTP-5(5)	1540																3		
10	NHTP-5(10)	1555															✓	3		

RELEASED BY:		DATE: 6/13/2014	RECEIVED BY: Cat Hamilton		DATE: 6/13/14
PRINT NAME: Josh Lee	FIRM: Geo	TIME: 1340	PRINT NAME:	FIRM: TestAmerica	TIME: 1340
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP: 4.9 PAGE 2 OF 3

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXF0094

CLIENT: Geo Engineers

REPORT TO: jsugalski@geoengineers.com

ADDRESS: 523 E Second Ave
Spokane, WA 99202

PHONE: FAX:

INVOICE TO:

P.O. NUMBER:

PROJECT NAME: Tiger 0.1 (E Nob Hill)

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [10 STD.] [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [5 STD.] [4] [3] [2] [1] [<1]

[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	NWTPH-Gx	NWTPH-Dx	HCID	BTEX	Naphthalene	EDB	EDC	MTBE	Pb (total)					MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
			REQUESTED ANALYSES																	
1	NHTP-5 (14)	6/12/2014 1610		X	X	X	X	X	X	X	X	X					S	6		
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

RELEASED BY: Josh Lee DATE: 6/13/2014 RECEIVED BY: Cat Hopkinson DATE: 6-13-14

PRINT NAME: Josh Lee FIRM: Geo TIME: 1340 PRINT NAME: Cat Hopkinson FIRM: TestAmerica TIME: 13:40

RELEASED BY: DATE: RECEIVED BY: DATE:

PRINT NAME: FIRM: TIME: PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 4.9 PAGE 3 OF 3

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #:	Client: GeoEngineers	Project:
Date/Time Received: 6-13-14	By: CS	

Samples Delivered By: ☐Shipping Service ☐Courier ☐Client ☐Other: _____

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:				
Custody Seals are present and intact:				
Are CoC documents present:				
Necessary signatures:				

Thermal Preservation Type: ☐Blue Ice ☐Gel Ice ☐Real Ice ☐Dry Ice ☐None ☐Other: _____

Temperature: 2.9 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐Not enough ice ☐Ice melted ☐w/in 4hrs of collection ☐NA ☐Other: _____

Log-In Phase Date/Time: By:	Yes	No	NA	Comments
Are sample labels affixed and completed for each container				
Samples containers were received intact:				
Do sample IDs match the CoC				
Appropriate sample containers were received for tests requested				
Are sample volumes adequate for tests requested				
Appropriate preservatives were used for the tests requested				
pH of inorganic samples checked and is within method specification				
Are VOC samples free of bubbles >6mm (1/4" diameter)				
Are dissolved parameters field filtered				
Do any samples need to be filtered or preserved by the lab				
Does this project require quick turnaround analysis				
Are there any short hold time tests (see chart below)				
Are any samples within 2 days of or past expiration				
Was the CoC scanned				
Were there Non-conformance issues at login				
If yes, was a CAR generated #				

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Spokane
11922 East 1st. Avenue
Spokane, WA 99206
Tel: (509)924-9200

TestAmerica Job ID: SXD0111
Client Project/Site: 0504-101-00
Client Project Description: Tiger Oil - E Nob Hill
Revision: 1

For:
Geo Engineers - Spokane
523 East Second Ave.
Spokane, WA 99202

Attn: JR Sugalski

Authorized for release by:
5/5/2014 12:26:53 PM

Randee Arrington, Project Manager
(509)924-9200
Randee.Arrington@testamericainc.com

Table of Contents

Sample Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
SXD0111-01	041514:NHDP-1:2.5	Soil	04/15/14 08:20	04/17/14 13:00
SXD0111-02	041514:NHDP-2:21.5	Soil	04/15/14 09:30	04/17/14 13:00
SXD0111-03	041514:NHDP-2:GW	Water	04/15/14 09:45	04/17/14 13:00
SXD0111-04	041514:NHDP-3:20	Soil	04/15/14 10:45	04/17/14 13:00
SXD0111-05	041514:NHDP-3:20.5	Soil	04/15/14 11:10	04/17/14 13:00
SXD0111-06	041514:NHDP-3:GW	Water	04/15/14 11:51	04/17/14 13:00
SXD0111-07	041514:NHDP-4:20	Soil	04/15/14 13:50	04/17/14 13:00
SXD0111-08	041514:NHDP-4:GW	Water	04/15/14 14:35	04/17/14 13:00
SXD0111-09	041514:NHDP-5:21	Soil	04/15/14 16:00	04/17/14 13:00
SXD0111-10	041514:NHDP-5:GW	Water	04/15/14 16:22	04/17/14 13:00
SXD0111-12	041514:NHDP-6:GW	Water	04/15/14 17:30	04/17/14 13:00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Qualifiers

Fuels

Qualifier	Qualifier Description
Z6	Surrogate recovery was below acceptance limits.
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
S6	Sediment present.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: 041514:NHDP-1:2.5
Date Collected: 04/15/14 08:20
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0111-01
Matrix: Soil
Percent Solids: 87.4

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00599		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
Benzene	ND		0.00499		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
Toluene	ND		0.0998		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
Ethylbenzene	ND		0.0998		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
m,p-Xylene	ND		0.399		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
o-Xylene	ND		0.200		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
1,2-Dichloroethane (EDC)	ND		0.0998		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00
Xylenes (total)	ND		0.599		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*94.7*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*
1,2-dichloroethane-d4	*93.5*		*50 - 150*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*
Toluene-d8	*99.7*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*
4-bromofluorobenzene	*101*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		4.99		mg/kg dry	☼	04/18/14 07:55	04/18/14 12:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*94.7*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*
Toluene-d8	*99.7*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*
4-bromofluorobenzene	*101*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 12:56*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.08		ug/kg dry	☼	04/21/14 15:28	04/22/14 13:32	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0111		mg/kg dry	☼	04/24/14 13:00	04/24/14 17:35	1.00
2-Methylnaphthalene	ND		0.0111		mg/kg dry	☼	04/24/14 13:00	04/24/14 17:35	1.00
1-Methylnaphthalene	ND		0.0111		mg/kg dry	☼	04/24/14 13:00	04/24/14 17:35	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*84.0*		*36.3 - 152*	*04/24/14 13:00*	*04/24/14 17:35*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		20.9		mg/kg dry	☼	04/22/14 09:22	04/22/14 19:23	1.00
Heavy Oil Range Hydrocarbons	ND		52.3		mg/kg dry	☼	04/22/14 09:22	04/22/14 19:23	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99.7*		*50 - 150*	*04/22/14 09:22*	*04/22/14 19:23*	*1.00*
n-Triacontane-d62	*102*		*50 - 150*	*04/22/14 09:22*	*04/22/14 19:23*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		43		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:11	1.0
Diesel Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:11	1.0
Heavy Oil Range Hydrocarbons	ND		110		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:11	1.0

Client Sample ID: 041514:NHDP-1:2.5

Lab Sample ID: SXD0111-01

Date Collected: 04/15/14 08:20

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 87.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	*93.8*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:11*	*1.0*
2-FBP	*99.1*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:11*	*1.0*
p-Terphenyl-d14	*97.1*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:11*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.33		2.70		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:19	2.00

Client Sample ID: 041514:NHDP-2:21.5

Lab Sample ID: SXD0111-02

Date Collected: 04/15/14 09:30

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 92.7

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00490		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
Benzene	ND		0.00408		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
Toluene	ND		0.0817		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
Ethylbenzene	ND		0.0817		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
m,p-Xylene	ND		0.327		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
o-Xylene	ND		0.163		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
1,2-Dichloroethane (EDC)	ND		0.0817		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00
Xylenes (total)	ND		0.490		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*92.7*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*
1,2-dichloroethane-d4	*97.7*		*50 - 150*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*
Toluene-d8	*96.6*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*
4-bromofluorobenzene	*98.9*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		4.08		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:18	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*92.7*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*
Toluene-d8	*96.6*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*
4-bromofluorobenzene	*98.9*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 13:18*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.974		ug/kg dry	☼	04/21/14 15:28	04/22/14 13:44	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0123		mg/kg dry	☼	04/24/14 13:00	04/25/14 11:27	1.00
2-Methylnaphthalene	ND		0.0123		mg/kg dry	☼	04/24/14 13:00	04/25/14 11:27	1.00
1-Methylnaphthalene	ND		0.0123		mg/kg dry	☼	04/24/14 13:00	04/25/14 11:27	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*62.8*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 11:27*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-2:21.5

Lab Sample ID: SXD0111-02

Date Collected: 04/15/14 09:30
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 92.7

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		18.7		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:31	1.00
Heavy Oil Range Hydrocarbons	ND		46.8		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97.0*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:31*	*1.00*
n-Triacontane-d62	*107*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:31*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		35		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:37	1.0
Diesel Range Hydrocarbons	ND		87		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:37	1.0
Heavy Oil Range Hydrocarbons	ND		87		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:37	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*78.9*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:37*	*1.0*
2-FBP	*94.8*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:37*	*1.0*
p-Terphenyl-d14	*96.3*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:37*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.44**		1.26		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:22	1.00

Client Sample ID: 041514:NHDP-2:GW

Lab Sample ID: SXD0111-03

Date Collected: 04/15/14 09:45
Matrix: Water
Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.65		mg/l		04/18/14 08:26	04/18/14 17:00	1.0
Diesel Range Hydrocarbons	ND		0.65		mg/l		04/18/14 08:26	04/18/14 17:00	1.0
Heavy Oil Range Hydrocarbons	ND		0.65		mg/l		04/18/14 08:26	04/18/14 17:00	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*77.9*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:00*	*1.0*
2-FBP	*80.2*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:00*	*1.0*
p-Terphenyl-d14	*82.8*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:00*	*1.0*

Client Sample ID: 041514:NHDP-3:20

Lab Sample ID: SXD0111-04

Date Collected: 04/15/14 10:45
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 93.1

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00848		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
Benzene	ND		0.00707		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
Toluene	ND		0.141		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
Ethylbenzene	ND		0.141		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
m,p-Xylene	ND		0.565		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
o-Xylene	ND		0.283		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
1,2-Dichloroethane (EDC)	ND		0.141		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00
Xylenes (total)	ND		0.848		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00

Client Sample ID: 041514:NHDP-3:20
Date Collected: 04/15/14 10:45
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0111-04
Matrix: Soil
Percent Solids: 93.1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.3*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*
1,2-dichloroethane-d4	*100*		*50 - 150*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*
Toluene-d8	*95.1*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*
4-bromofluorobenzene	*159*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**68.8**		7.07		mg/kg dry	☼	04/18/14 07:55	04/18/14 13:40	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99.3*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*
Toluene-d8	*95.1*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*
4-bromofluorobenzene	*159*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 13:40*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.786		ug/kg dry	☼	04/21/14 15:28	04/22/14 13:56	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0106		mg/kg dry	☼	04/24/14 13:00	04/25/14 11:49	1.00
2-Methylnaphthalene	ND		0.0106		mg/kg dry	☼	04/24/14 13:00	04/25/14 11:49	1.00
1-Methylnaphthalene	ND		0.0106		mg/kg dry	☼	04/24/14 13:00	04/25/14 11:49	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*80.0*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 11:49*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		19.0		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:31	1.00
Heavy Oil Range Hydrocarbons	ND		47.6		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91.4*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:31*	*1.00*
n-Triacontane-d62	*95.4*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:31*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		42		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:37	1.0
Diesel Range Hydrocarbons	ND		100		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:37	1.0
Heavy Oil Range Hydrocarbons	ND		100		mg/kg dry	☼	04/18/14 15:46	04/19/14 00:37	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*94.4*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:37*	*1.0*
2-FBP	*102*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:37*	*1.0*
p-Terphenyl-d14	*99.5*		*50 - 150*	*04/18/14 15:46*	*04/19/14 00:37*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**3.32**		1.36		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:26	1.00

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-3:20.5
Date Collected: 04/15/14 11:10
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0111-05
Matrix: Soil
Percent Solids: 91.1

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00523		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
Benzene	ND		0.00436		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
Toluene	ND		0.0872		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
Ethylbenzene	ND		0.0872		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
m,p-Xylene	ND		0.349		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
o-Xylene	ND		0.174		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
1,2-Dichloroethane (EDC)	ND		0.0872		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00
Xylenes (total)	ND		0.523		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*98.3*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*
1,2-dichloroethane-d4	*95.8*		*50 - 150*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*
Toluene-d8	*98.8*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*
4-bromofluorobenzene	*113*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**7.65**		4.36		mg/kg dry	☼	04/18/14 07:55	04/18/14 14:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*98.3*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*
Toluene-d8	*98.8*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*
4-bromofluorobenzene	*113*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 14:03*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.828		ug/kg dry	☼	04/21/14 15:28	04/22/14 14:08	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0104		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:10	1.00
2-Methylnaphthalene	ND		0.0104		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:10	1.00
1-Methylnaphthalene	ND		0.0104		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*56.8*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 12:10*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**38.7**		20.8		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:54	1.00
Heavy Oil Range Hydrocarbons	**134**		51.9		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:54	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97.5*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:54*	*1.00*
n-Triacontane-d62	*115*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:54*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		42		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:02	1.0
Diesel Range Hydrocarbons	ND		100		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:02	1.0
Heavy Oil Range Hydrocarbons	**190**		100		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:02	1.0

Client Sample ID: 041514:NHDP-3:20.5

Lab Sample ID: SXD0111-05

Date Collected: 04/15/14 11:10
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 91.1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*80.8*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:02*	*1.0*
2-FBP	*101*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:02*	*1.0*
p-Terphenyl-d14	*97.9*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:02*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**4.26**		1.32		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:29	1.00

Client Sample ID: 041514:NHDP-3:GW

Lab Sample ID: SXD0111-06

Date Collected: 04/15/14 11:51
Matrix: Water
Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.62		mg/l		04/18/14 08:26	04/18/14 17:26	1.0
Diesel Range Hydrocarbons	ND		0.62		mg/l		04/18/14 08:26	04/18/14 17:26	1.0
Heavy Oil Range Hydrocarbons	ND		0.62		mg/l		04/18/14 08:26	04/18/14 17:26	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*54.1*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:26*	*1.0*
2-FBP	*62.0*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:26*	*1.0*
p-Terphenyl-d14	*74.2*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:26*	*1.0*

Client Sample ID: 041514:NHDP-4:20

Lab Sample ID: SXD0111-07

Date Collected: 04/15/14 13:50
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 92.6

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00491		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
Benzene	ND		0.00409		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
Toluene	ND		0.0819		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
Ethylbenzene	ND		0.0819		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
m,p-Xylene	ND		0.327		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
o-Xylene	ND		0.164		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
1,2-Dichloroethane (EDC)	ND		0.0819		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00
Xylenes (total)	ND		0.491		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*94.9*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*
1,2-dichloroethane-d4	*101*		*50 - 150*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*
Toluene-d8	*98.7*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*
4-bromofluorobenzene	*103*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	**6.63**		4.09		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*94.9*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*
Toluene-d8	*98.7*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*
4-bromofluorobenzene	*103*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 15:10*	*1.00*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-4:20

Lab Sample ID: SXD0111-07

Date Collected: 04/15/14 13:50
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 92.6

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.815		ug/kg dry	☼	04/21/14 15:28	04/22/14 14:20	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0141		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:31	1.00
2-Methylnaphthalene	ND		0.0141		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:31	1.00
1-Methylnaphthalene	ND		0.0141		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*53.6*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 12:31*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**80.1**		19.5		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:54	1.00
Heavy Oil Range Hydrocarbons	**89.4**		48.6		mg/kg dry	☼	04/22/14 09:22	04/22/14 20:54	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92.1*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:54*	*1.00*
n-Triacontane-d62	*100*		*50 - 150*	*04/22/14 09:22*	*04/22/14 20:54*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		35		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:02	1.0
Diesel Range Hydrocarbons	ND		87		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:02	1.0
Heavy Oil Range Hydrocarbons	ND		87		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:02	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*72.9*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:02*	*1.0*
2-FBP	*95.2*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:02*	*1.0*
p-Terphenyl-d14	*95.4*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:02*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**11.1**		1.24		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:33	1.00

Client Sample ID: 041514:NHDP-4:GW

Lab Sample ID: SXD0111-08

Date Collected: 04/15/14 14:35
Matrix: Water
Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.62		mg/l		04/18/14 08:26	04/18/14 17:26	1.0
Diesel Range Hydrocarbons	**1.5**		0.62		mg/l		04/18/14 08:26	04/18/14 17:26	1.0
Heavy Oil Range Hydrocarbons	ND		0.62		mg/l		04/18/14 08:26	04/18/14 17:26	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*63.6*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:26*	*1.0*
2-FBP	*67.2*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:26*	*1.0*
p-Terphenyl-d14	*85.7*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:26*	*1.0*

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-5:21
Date Collected: 04/15/14 16:00
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0111-09
Matrix: Soil
Percent Solids: 96.3

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00349		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
Benzene	ND		0.00291		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
Toluene	ND		0.0582		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
Ethylbenzene	ND		0.0582		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
m,p-Xylene	ND		0.233		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
o-Xylene	ND		0.116		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
1,2-Dichloroethane (EDC)	ND		0.0582		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00
Xylenes (total)	ND		0.349		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*
1,2-dichloroethane-d4	*103*		*50 - 150*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*
Toluene-d8	*95.6*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		2.91		mg/kg dry	☼	04/18/14 07:55	04/18/14 15:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*100*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*
Toluene-d8	*95.6*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*
4-bromofluorobenzene	*100*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 15:32*	*1.00*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.843		ug/kg dry	☼	04/21/14 15:28	04/22/14 14:32	1.00

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.0267**		0.0182		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:53	1.00
2-Methylnaphthalene	ND		0.0182		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:53	1.00
1-Methylnaphthalene	ND		0.0182		mg/kg dry	☼	04/24/14 13:00	04/25/14 12:53	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85.2*		*36.3 - 152*	*04/24/14 13:00*	*04/25/14 12:53*	*1.00*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	**26.2**		16.4		mg/kg dry	☼	04/22/14 09:22	04/22/14 21:17	1.00
Heavy Oil Range Hydrocarbons	ND		41.1		mg/kg dry	☼	04/22/14 09:22	04/22/14 21:17	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*103*		*50 - 150*	*04/22/14 09:22*	*04/22/14 21:17*	*1.00*
n-Triacontane-d62	*111*		*50 - 150*	*04/22/14 09:22*	*04/22/14 21:17*	*1.00*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		39		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:28	1.0
Diesel Range Hydrocarbons	ND		98		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:28	1.0
Heavy Oil Range Hydrocarbons	ND		98		mg/kg dry	☼	04/18/14 15:46	04/19/14 01:28	1.0

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-5:21

Lab Sample ID: SXD0111-09

Date Collected: 04/15/14 16:00
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 96.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*97.4*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:28*	*1.0*
2-FBP	*95.0*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:28*	*1.0*
p-Terphenyl-d14	*96.4*		*50 - 150*	*04/18/14 15:46*	*04/19/14 01:28*	*1.0*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2.76**		1.26		mg/kg dry	☼	04/28/14 13:31	04/29/14 18:36	1.00

Client Sample ID: 041514:NHDP-5:GW

Lab Sample ID: SXD0111-10

Date Collected: 04/15/14 16:22
Matrix: Water
Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.61		mg/l		04/18/14 08:26	04/18/14 17:52	1.0
Diesel Range Hydrocarbons	ND		0.61		mg/l		04/18/14 08:26	04/18/14 17:52	1.0
Heavy Oil Range Hydrocarbons	ND		0.61		mg/l		04/18/14 08:26	04/18/14 17:52	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*53.6*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:52*	*1.0*
2-FBP	*56.1*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:52*	*1.0*
p-Terphenyl-d14	*76.9*		*50 - 150*	*04/18/14 08:26*	*04/18/14 17:52*	*1.0*

Client Sample ID: 041514:NHDP-6:GW

Lab Sample ID: SXD0111-12

Date Collected: 04/15/14 17:30
Matrix: Water
Date Received: 04/17/14 13:00

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND	S6	0.62		mg/l		04/18/14 08:26	04/18/14 17:52	1.0
Diesel Range Hydrocarbons	ND	S6	0.62		mg/l		04/18/14 08:26	04/18/14 17:52	1.0
Heavy Oil Range Hydrocarbons	ND	S6	0.62		mg/l		04/18/14 08:26	04/18/14 17:52	1.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*72.4*	*S6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 17:52*	*1.0*
2-FBP	*83.4*	*S6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 17:52*	*1.0*
p-Terphenyl-d14	*105*	*S6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 17:52*	*1.0*

Method: EPA 8260C - Volatile Organic Compounds by EPA Method 8260C

Lab Sample ID: 14D0092-BLK1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0092_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.00600		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Benzene	ND		0.00500		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Toluene	ND		0.100		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Ethylbenzene	ND		0.100		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
m,p-Xylene	ND		0.400		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
o-Xylene	ND		0.200		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
1,2-Dichloroethane (EDC)	ND		0.100		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00
Xylenes (total)	ND		0.600		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*96.1*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
1,2-dichloroethane-d4	*98.3*		*50 - 150*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
Toluene-d8	*101*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
4-bromofluorobenzene	*99.9*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*

Lab Sample ID: 14D0092-BS1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0092_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	0.500	0.477		mg/kg wet		95.4	79 - 127
Benzene	0.500	0.466		mg/kg wet		93.2	75.9 - 123
Toluene	0.500	0.415		mg/kg wet		83.0	77.3 - 126
Ethylbenzene	0.500	0.434		mg/kg wet		86.9	80 - 120
m,p-Xylene	0.500	0.432		mg/kg wet		86.4	80 - 120
o-Xylene	0.500	0.434		mg/kg wet		86.9	80 - 120
Naphthalene	0.500	0.506		mg/kg wet		101	58.8 - 130
1,2-Dichloroethane (EDC)	0.500	0.521		mg/kg wet		104	60 - 140
1,2-Dibromoethane	0.500	0.478		mg/kg wet		95.7	60 - 140
Xylenes (total)	1.00	0.866		mg/kg wet		86.6	80 - 120
Hexane	0.500	0.496		mg/kg wet		99.3	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*98.5*		*42.4 - 163*
1,2-dichloroethane-d4	*101*		*50 - 150*
Toluene-d8	*95.7*		*45.8 - 155*
4-bromofluorobenzene	*97.0*		*41.5 - 162*

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx

Lab Sample ID: 14D0092-BLK1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0092_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		5.00		mg/kg wet		04/18/14 07:55	04/18/14 09:36	1.00

Method: NWTPH-Gx - Gasoline Hydrocarbons by NWTPH-Gx (Continued)

Lab Sample ID: 14D0092-BLK1
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0092_P

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*96.1*		*42.4 - 163*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
Toluene-d8	*101*		*45.8 - 155*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*
4-bromofluorobenzene	*99.9*		*41.5 - 162*	*04/18/14 07:55*	*04/18/14 09:36*	*1.00*

Lab Sample ID: 14D0092-BS2
Matrix: Soil
Analysis Batch: 14D0092

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0092_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons			50.0	52.2		mg/kg wet		104	74.4 - 124		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	*93.2*		*42.4 - 163*
Toluene-d8	*98.3*		*45.8 - 155*
4-bromofluorobenzene	*99.7*		*41.5 - 162*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 14D0100-BLK1
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0100_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.00		ug/kg wet		04/21/14 15:28	04/22/14 11:19	1.00

Lab Sample ID: 14D0100-BS1
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0100_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane			5.00	5.53		ug/kg wet		111	60 - 140		

Lab Sample ID: 14D0100-BS2
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 14D0100_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane			5.00	5.95		ug/kg wet		119	60 - 140		

Lab Sample ID: 14D0100-MS1
Matrix: Soil
Analysis Batch: 14D0100

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 14D0100_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromoethane	ND		6.13	5.79		ug/kg dry	☼	94.4	60 - 140		

Method: EPA 8011 - EDB by EPA Method 8011 (Continued)

Lab Sample ID: 14D0100-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0100 — **Prep Batch: 14D0100_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	ND		4.89	4.93		ug/kg dry	☼	101	60 - 140	16.0	20

Method: EPA 8270D - Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Lab Sample ID: 14D0130-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0100		mg/kg wet		04/24/14 13:00	04/24/14 14:44	1.00
2-Methylnaphthalene	ND		0.0100		mg/kg wet		04/24/14 13:00	04/24/14 14:44	1.00
1-Methylnaphthalene	ND		0.0100		mg/kg wet		04/24/14 13:00	04/24/14 14:44	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85.2*		*36.3 - 152*	*04/24/14 13:00*	*04/24/14 14:44*	*1.00*

Lab Sample ID: 14D0130-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			0.133	0.115		mg/kg wet		86.0	62.7 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*77.4*		*36.3 - 152*

Lab Sample ID: 14D0130-MS1 — **Client Sample ID: 041514:NHDP-1:2.5**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene	ND		0.176	0.151		mg/kg dry	☼	86.0	30 - 120		

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
Nitrobenzene-d5	*76.4*		*36.3 - 152*

Lab Sample ID: 14D0130-MSD1 — **Client Sample ID: 041514:NHDP-1:2.5**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0130 — **Prep Batch: 14D0130_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND		0.179	0.158		mg/kg dry	☼	88.5	30 - 120	4.64	35

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Nitrobenzene-d5	*78.2*		*36.3 - 152*

Method: NWTPH-Dx - Semivolatile Petroleum Products by NWTPH-Dx

Lab Sample ID: 14D0111-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0111 — **Prep Batch: 14D0111_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Hydrocarbons	ND		20.0		mg/kg wet		04/22/14 09:22	04/22/14 13:19	1.00
Heavy Oil Range Hydrocarbons	ND		50.0		mg/kg wet		04/22/14 09:22	04/22/14 13:19	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*105*		*50 - 150*	*04/22/14 09:22*	*04/22/14 13:19*	*1.00*
n-Triacontane-d62	*110*		*50 - 150*	*04/22/14 09:22*	*04/22/14 13:19*	*1.00*

Lab Sample ID: 14D0111-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0111 — **Prep Batch: 14D0111_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Hydrocarbons			66.7	65.6		mg/kg wet		98.3	73 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*105*		*50 - 150*
n-Triacontane-d62	*87.2*		*50 - 150*

Lab Sample ID: 14D0111-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0111 — **Prep Batch: 14D0111_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	4360			6070		mg/kg dry	☼			32.9	40
Heavy Oil Range Hydrocarbons	8680			12000		mg/kg dry	☼			32.1	40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*135*		*50 - 150*
n-Triacontane-d62	*245*	*Z3*	*50 - 150*

Lab Sample ID: 14D0111-DUP2 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0111 — **Prep Batch: 14D0111_P**

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Hydrocarbons	ND			ND		mg/kg dry	☼				40
Heavy Oil Range Hydrocarbons	ND			ND		mg/kg dry	☼				40

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
o-Terphenyl	*102*		*50 - 150*
n-Triacontane-d62	*97.9*		*50 - 150*

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID

Lab Sample ID: 14D0093-BLK1
Matrix: Water
Analysis Batch: 14D0093

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0093_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		0.63		mg/l		04/18/14 08:26	04/18/14 15:17	1.00
Diesel Range Hydrocarbons	ND		0.63		mg/l		04/18/14 08:26	04/18/14 15:17	1.00
Heavy Oil Range Hydrocarbons	ND		0.63		mg/l		04/18/14 08:26	04/18/14 15:17	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*33.2*	*Z6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 15:17*	*1.00*
2-FBP	*40.8*	*Z6*	*50 - 150*	*04/18/14 08:26*	*04/18/14 15:17*	*1.00*
p-Terphenyl-d14	*87.2*		*50 - 150*	*04/18/14 08:26*	*04/18/14 15:17*	*1.00*

Lab Sample ID: 14D0099-BLK1
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 14D0099_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		40		mg/kg wet		04/18/14 15:46	04/18/14 22:54	1.00
Diesel Range Hydrocarbons	ND		100		mg/kg wet		04/18/14 15:46	04/18/14 22:54	1.00
Heavy Oil Range Hydrocarbons	ND		100		mg/kg wet		04/18/14 15:46	04/18/14 22:54	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*96.0*		*50 - 150*	*04/18/14 15:46*	*04/18/14 22:54*	*1.00*
2-FBP	*95.1*		*50 - 150*	*04/18/14 15:46*	*04/18/14 22:54*	*1.00*
p-Terphenyl-d14	*92.2*		*50 - 150*	*04/18/14 15:46*	*04/18/14 22:54*	*1.00*

Lab Sample ID: 14D0099-DUP1
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14D0099_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	2.17			8.80	R4	mg/kg dry	☼			121	25
Diesel Range Hydrocarbons	6.38			12.9	R4	mg/kg dry	☼			67.9	25
Heavy Oil Range Hydrocarbons	22.9			95.5	R4	mg/kg dry	☼			123	25

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*98.3*		*50 - 150*
2-FBP	*103*		*50 - 150*
p-Terphenyl-d14	*99.0*		*50 - 150*

Lab Sample ID: 14D0099-DUP2
Matrix: Soil
Analysis Batch: 14D0099

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 14D0099_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	0.00			7.93	R4	mg/kg dry	☼			200	25
Diesel Range Hydrocarbons	6.37			5.28	R4	mg/kg dry	☼			18.7	25
Heavy Oil Range Hydrocarbons	0.112			2.05	R4	mg/kg dry	☼			179	25

Method: NWTPH-HCID - Hydrocarbon Identification by NWTPH-HCID (Continued)

Lab Sample ID: 14D0099-DUP2 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0099 — **Prep Batch: 14D0099_P**

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*103*		*50 - 150*
2-FBP	*102*		*50 - 150*
p-Terphenyl-d14	*91.9*		*50 - 150*

Method: EPA 6010C - Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B

Lab Sample ID: 14D0146-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.25		mg/kg wet		04/28/14 13:31	04/29/14 17:32	1.00

Lab Sample ID: 14D0146-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	50.0	49.1		mg/kg wet		98.2	80 - 120

Lab Sample ID: 14D0146-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	4.25		54.3	54.2		mg/kg dry	☼	91.9	75 - 125

Lab Sample ID: 14D0146-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	4.25		54.9	54.7		mg/kg dry	☼	91.9	75 - 125	0.947	20

Lab Sample ID: 14D0146-DUP1 — **Client Sample ID: Duplicate**
Matrix: Soil — **Prep Type: Total**
Analysis Batch: 14D0146 — **Prep Batch: 14D0146_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Lead	4.25		4.47		mg/kg dry	☼	5.18	20

Client Sample ID: 041514:NHDP-1:2.5

Lab Sample ID: SXD0111-01

Date Collected: 04/15/14 08:20

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.746	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 12:56	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.746	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 12:56	CBW	TAL SPK
Total	Prep	EPA 3580		0.948	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 13:32	MS	TAL SPK
Total	Prep	EPA 3550B		0.973	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/24/14 17:35	MRS	TAL SPK
Total	Prep	EPA 3550B		0.914	14D0111_P	04/22/14 09:22	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0111	04/22/14 19:23	MRS	TAL SPK
Total	Prep	EPA 3580		0.94	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 00:11	MRS	TAL SPK
Total	Prep	EPA 3050B		0.943	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		2.00	14D0146	04/29/14 18:19	ICP	TAL SPK
Total	Prep	Wet Chem		1.00	14D0116_P	04/21/14 16:32	MS	TAL SPK
Total	Analysis	TA SOP		1.00	14D0116	04/22/14 12:10	MS	TAL SPK

Client Sample ID: 041514:NHDP-2:21.5

Lab Sample ID: SXD0111-02

Date Collected: 04/15/14 09:30

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.684	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 13:18	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.684	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 13:18	CBW	TAL SPK
Total	Prep	EPA 3580		0.903	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 13:44	MS	TAL SPK
Total	Prep	EPA 3550B		1.14	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 11:27	MRS	TAL SPK
Total	Prep	EPA 3550B		0.868	14D0111_P	04/22/14 09:22	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0111	04/22/14 20:31	MRS	TAL SPK
Total	Prep	EPA 3580		0.81	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 00:37	MRS	TAL SPK
Total	Prep	EPA 3050B		0.935	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:22	ICP	TAL SPK

Client Sample ID: 041514:NHDP-2:GW

Lab Sample ID: SXD0111-03

Date Collected: 04/15/14 09:45

Matrix: Water

Date Received: 04/17/14 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510/600 Series		1.0	14D0093_P	04/18/14 08:26	MS	TAL SPK

Client Sample ID: 041514:NHDP-2:GW

Lab Sample ID: SXD0111-03

Date Collected: 04/15/14 09:45

Matrix: Water

Date Received: 04/17/14 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	NWTPH-HCID		1.0	14D0093	04/18/14 17:00	MRS	TAL SPK

Client Sample ID: 041514:NHDP-3:20

Lab Sample ID: SXD0111-04

Date Collected: 04/15/14 10:45

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		1.25	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 13:40	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		1.25	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 13:40	CBW	TAL SPK
Total	Prep	EPA 3580		0.732	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 13:56	MS	TAL SPK
Total	Prep	EPA 3550B		0.988	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 11:49	MRS	TAL SPK
Total	Prep	EPA 3050B		1.01	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:26	ICP	TAL SPK

Client Sample ID: 041514:NHDP-3:20.5

Lab Sample ID: SXD0111-05

Date Collected: 04/15/14 11:10

Matrix: Soil

Date Received: 04/17/14 13:00

Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.705	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 14:03	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.705	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 14:03	CBW	TAL SPK
Total	Prep	EPA 3580		0.755	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 14:08	MS	TAL SPK
Total	Prep	EPA 3550B		0.944	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 12:10	MRS	TAL SPK
Total	Prep	EPA 3550B		0.945	14D0111_P	04/22/14 09:22	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0111	04/22/14 20:54	MRS	TAL SPK
Total	Prep	EPA 3580		0.95	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 01:02	MRS	TAL SPK
Total	Prep	EPA 3050B		0.962	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:29	ICP	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-3:GW

Lab Sample ID: SXD0111-06

Date Collected: 04/15/14 11:51
Matrix: Water
Date Received: 04/17/14 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510/600 Series		0.98	14D0093_P	04/18/14 08:26	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0093	04/18/14 17:26	MRS	TAL SPK

Client Sample ID: 041514:NHDP-4:20

Lab Sample ID: SXD0111-07

Date Collected: 04/15/14 13:50
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.684	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 15:10	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.684	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 15:10	CBW	TAL SPK
Total	Prep	EPA 3580		0.755	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 14:20	MS	TAL SPK
Total	Prep	EPA 3550B		1.30	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 12:31	MRS	TAL SPK
Total	Prep	EPA 3050B		0.917	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:33	ICP	TAL SPK

Client Sample ID: 041514:NHDP-5:21

Lab Sample ID: SXD0111-09

Date Collected: 04/15/14 16:00
Matrix: Soil
Date Received: 04/17/14 13:00
Percent Solids: 96.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	GC/MS Volatiles		0.523	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	EPA 8260C		1.00	14D0092	04/18/14 15:32	CBW	TAL SPK
Total	Prep	GC/MS Volatiles		0.523	14D0092_P	04/18/14 07:55	CBW	TAL SPK
Total	Analysis	NWTPH-Gx		1.00	14D0092	04/18/14 15:32	CBW	TAL SPK
Total	Prep	EPA 3580		0.812	14D0100_P	04/21/14 15:28	MS	TAL SPK
Total	Analysis	EPA 8011		1.00	14D0100	04/22/14 14:32	MS	TAL SPK
Total	Prep	EPA 3550B		1.75	14D0130_P	04/24/14 13:00	MS	TAL SPK
Total	Analysis	EPA 8270D		1.00	14D0130	04/25/14 12:53	MRS	TAL SPK
Total	Prep	EPA 3550B		0.791	14D0111_P	04/22/14 09:22	MS	TAL SPK
Total	Analysis	NWTPH-Dx		1.00	14D0111	04/22/14 21:17	MRS	TAL SPK
Total	Prep	EPA 3580		0.94	14D0099_P	04/18/14 15:46	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0099	04/19/14 01:28	MRS	TAL SPK
Total	Prep	EPA 3050B		0.971	14D0146_P	04/28/14 13:31	JSP	TAL SPK
Total	Analysis	EPA 6010C		1.00	14D0146	04/29/14 18:36	ICP	TAL SPK

Lab Chronicle

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Client Sample ID: 041514:NHDP-5:GW
Date Collected: 04/15/14 16:22
Date Received: 04/17/14 13:00

Lab Sample ID: SXD0111-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510/600 Series		0.97	14D0093_P	04/18/14 08:26	MS	TAL SPK
Total	Analysis	NWTPH-HCID		1.0	14D0093	04/18/14 17:52	MRS	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

Certification Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Laboratory: TestAmerica Spokane

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-071	10-31-14
Washington	State Program	10	C569	01-06-15

Method Summary

Client: Geo Engineers - Spokane
Project/Site: 0504-101-00

TestAmerica Job ID: SXD0111

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds by EPA Method 8260C		TAL SPK
NWTPH-Gx	Gasoline Hydrocarbons by NWTPH-Gx		TAL SPK
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 8270D	Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring		TAL SPK
NWTPH-Dx	Semivolatile Petroleum Products by NWTPH-Dx		TAL SPK
NWTPH-HCID	Hydrocarbon Identification by NWTPH-HCID		TAL SPK
EPA 6010C	Metals Content by EPA 6010/7000 Series Methods, Prep by EPA 3050B		TAL SPK
TA SOP	Conventional Chemistry Parameters by APHA/EPA Methods		TAL SPK

Protocol References:

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st. Avenue, Spokane, WA 99206, TEL (509)924-9200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SXM0111

CLIENT: Geo Engineers

REPORT TO: jsugalski@geoengineers.com

ADDRESS: 523 E. Second Ave Spokane WA 99202

PHONE: 509-363-3125 FAX:

INVOICE TO: GeoEngineers Spokane

P.O. NUMBER: 0504-101-00

PROJECT NAME: Tiger Oil - E Nob Hill

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: NWTPH Dx	Pb	8011 EDB	NWTPH GX	8260 BTEX	EPC	MTBE	Naphthalene	NWTPH HCID	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
041514:NHDP-1:2.5	4/15/2014 0820		X	X	X	X	X	X	X	X	X	S	3		
041514:NHDP-2:21.5	0930		X	X	X	X	X	X	X	X	X	S	3		
041514:NHDP-2:GW	0945										X	W	1	~~Hold soil~~	
041514:NHDP-3:20	1045		X	X	X	X	X	X	X	X	X	S	3		
041514:NHDP-3:20.5	1110		X	X	X	X	X	X	X	X	X	S	3		
041514:NHDP-3:GW	1151										X	W	1	~~Hold soil~~	
041514:NHDP-4:20	1350		X	X	X	X	X	X	X	X	X	S	3		
041514:NHDP-4:GW	1435										X	W	1	~~Hold soil~~	
041514:NHDP-5:21	1600		X	X	X	X	X	X	X	X	X	S	3	~~Hold soil~~	
041514:NHDP-5:GW	1622										X	W	1	~~Hold soil~~	

RELEASED BY:		DATE: 4-17-14	RECEIVED BY:		DATE: 4/17/14
PRINT NAME: Josh Lu	FIRM: Geo	TIME: 1300	PRINT NAME: Cat Stapleton	FIRM: TA	TIME: 13:00
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP: 12.7

PAGE 1 OF 2

TAL-1000 (0612)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: SX00111

CLIENT: GeoEngineers

REPORT TO: jsingalski@geoengineers.com

ADDRESS: 523 E Second Ave Spokane WA 99202

PHONE: 509-363-3135 FAX:

INVOICE TO: GeoEngineers Spokane

P.O. NUMBER:

PROJECT NAME: Tyee Oil - E Nob Hill

PROJECT NUMBER: 0504-101-00

SAMPLED BY: JML

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1

OTHER Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: NWTPH Dx	Pb	8011 EDB	NWTPH Gx	8260 BTEX	EDC	MTBE	Naph. Only	NWTPH HCID					MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	041514:NHDP-6:15	4/15/2014 1705															S	3	~~Hold Soil~~ Hold	
2	041514:NHDP-6:GW	4/15/2014 1730										X					W	1		
3	Trip Blank																			
4																				
5																				
6																				
7																				
8																				
9																				
10																				

RELEASED BY:		DATE: 4-17-14	RECEIVED BY: Cat Stapleton		DATE: 4-17-14
PRINT NAME: Josh Lee	FIRM: Geo	TIME: 1300	PRINT NAME:	FIRM: TA	TIME: 1300
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP: 12.7 PAGE 2 OF 2

TAL-1000 (0612)

TestAmerica Spokane
Sample Receipt Form

Work Order #: SXD0111	**Client:** GeoEngineers	**Project:** Tiger 0.1
Date/Time Received: 4/7/14 13:00	By: CS	

Samples Delivered By: ☐Shipping Service ☐Courier ☒Client ☐Other:_____

List Air Bill Number(s) or Attach a photocopy of the Air Bill:

Receipt Phase	Yes	No	NA	Comments
Were samples received in a cooler:	Y			
Custody Seals are present and intact:			N	
Are CoC documents present:	Y			
Necessary signatures:	Y			

Thermal Preservation Type: ☐Blue Ice ☐Gel Ice ☒Real Ice ☐Dry Ice ☐None ☐Other:_____

Temperature: 12.7 °C Thermometer (Circle **one** Serial #122208348 Keyring IR Serial # 111874910 IR Gun 2)(acceptance criteria 0-6

Temperature out of range: ☐Not enough ice ☐Ice melted ☐w/in 4hrs of collection ☐NA ☐Other:_____

Log-In Phase Date/Time: 4/7/14 14:57 By: CS	Yes	No	NA	Comments
Are sample labels affixed and completed for each container	Y			
Samples containers were received intact:	Y			
Do sample IDs match the CoC	Y			
Appropriate sample containers were received for tests requested	Y			
Are sample volumes adequate for tests requested	Y			
Appropriate preservatives were used for the tests requested	Y			
pH of inorganic samples checked and is within method specification	Y			
Are VOC samples free of bubbles >6mm (1/4" diameter)	Y			
Are dissolved parameters field filtered	N			
Do any samples need to be filtered or preserved by the lab			Y	
Does this project require quick turnaround analysis			Y	
Are there any short hold time tests (see chart below)			Y	
Are any samples within 2 days of or past expiration		N		
Was the CoC scanned	Y			
Were there Non-conformance issues at login		N		
If yes, was a CAR generated #			N	

24 hours or less	48 hours	7 days
Coliform Bacteria	BOD, Color, MBAS	TDS, TSS, VDS, FDS
Chromium +6	Nitrate/Nitrite	Sulfide
	Orthophosphate	Aqueous Organic Prep

Form No. SP-FORM-SPL-002 12 December 2012

APPENDIX C
Well Survey Report

TIGER OIL MONITORING WELL ELEVATION TABLE YAKIMA, WA			SURVEY DATE 8/27/2014	PLS JOB NO. 14079
FEATURE	NORTH EDGE OF PVC ELAVATION	NORTH RIM OF OUTER CASE ELEVATION	NORTHING	EASTING
EAST NOB HILL				
NHMW-1	1,021.92	1,022.32	456506.7	1645362.3
NHMW-2	1,022.14	1,022.51	456313.2	1645453.8
NHMW-3	1,022.18	1,022.47	456202.2	1645683.2
NHMW-4	1,021.31	1,022.52	456197.6	1645482.7
NHMW-5	1,019.43	1,019.84	455792.4	1645698.2
BENCHMARK ELEVATION = 1021.75'	NORTH RIM OF MANHOLE AT CENTER OF S. 17TH STREET 160'+/- SOUTH OF NOB HILL BLVD. CENTERLINE		456316.1	1645712.1
VERTICAL DATUM:	NAVD 88 - REFERENCED FROM WSDOT MONUMENT DESIGNATION GP39012-9, WITH A PUBLISHED ELEVATION OF 1130.33 FEET.			
HORIZONTAL DATUM:	NAD 83/91 WASHINGTON SOUTH ZONE - BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.			

The horizontal coordinates of the groundwater monitoring wells and the elevation of the benchmark established at the site were determined using a Topcon GR-3 GPS receiver with a nominal accuracy of 10mm + 1ppm horizontal and 15mm + 1ppm vertical. The elevation of the monitoring wells are relative to the benchmark established at the site and were individually determined using a Leica DNA03 digital level with a vertical accuracy of +/- 0.01 feet.

APPENDIX D
Report Limitations and Guidelines for Use

APPENDIX D
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

GeoEngineers has performed this assessment of the Tiger Oil – East Nob Hill site in Yakima, Washington in general accordance with the Work Plan dated April 15, 2014. This report has been prepared for the exclusive use of the Washington Department of Ecology. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment (ESA) study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and property. No one except the Washington Department of Ecology should rely on this environmental report without first conferring with GeoEngineers. Use of this report is not recommended for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for the Tiger Oil – East Nob Hill site in Yakima, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made to the project or property after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services

1 Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

Environmental Regulations Are Always Evolving

Some substances may be present in the vicinity of the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substances, change or if more stringent environmental standards are developed in the future.

Uncertainty May Remain Even After This Phase II ESA is Completed

Performance of a Phase II ESA is intended to reduce uncertainty regarding the potential for contamination in connection with a property, but no ESA can wholly eliminate that uncertainty. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the subject property, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying this report for its intended purpose so that GeoEngineers may evaluate whether changed conditions affect the continued applicability of the report.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other properties or for other on-site uses of the affected soil and/or groundwater. Note that hazardous substances may be present in some of the on-site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject property or reuse of the affected soil or groundwater on-site to evaluate the potential for associated environmental liabilities. We are unable to assume responsibility for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject property to another location or its reuse on-site in instances that we did not know or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the subject property. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an informed opinion about subsurface conditions throughout the property. Actual subsurface conditions may differ,

sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but separating logs from the report can create a risk of misinterpretation.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you need to know more about how these "Report Limitations and Guidelines for Use" apply to your project or property.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

Have we delivered World Class Client Service?

Please let us know by visiting **www.geoengineers.com/feedback**.

GeoEngineers

www.geoengineers.com

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